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ON THE COVER: Will you be prepared when an emergency strikes? That's when seldom-used public safety and other VHF/UHF frequencies spring to life, like those in the emergency room at Mercy Community Hospital, Port Jervis, New York. Check out Chuck Gysi's "Scanning The Globe" on page 32 for emergency scanning tips. (Photo by Larry Mulvehill)
The Drake 3W-1 sets the stage for worldwide shortwave listening with ease, simplicity and clarity. The SW-1 offers superb sensitivity, selectivity and full audio. Coverage from 100 through 30000 kHz provides solid coverage of longwave, medium wave and shortwave in the AM mode (no SSB). This makes it an ideal broadcast receiver for the desk or bed-stead. Tuning is a snap via the keypad, manual tuning knob, Up/Down buttons or 32 programmable memories. The LED display is sovlely huge for easy accurate frequency readout to 1 kHz. Antenna input is via a 50 ohm terminal or SO-239 jack. A 1/8" mini jack is provided for use with earplug or headphones (not supplied). Includes AC wall adapter for operation.

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For The Price Of A Pair Of Shoes . . .

What would you say if I told you that you had the power to survive a disaster merely by listening to the radio? We all know the value of being on top of the latest happenings in our world via shortwave radio and, closer to home, with our scanner and even amateur radio, but there's a medium far more potent and valuable than any of these: It's NOAA Weather Radio, but like most warnings we receive throughout our lives, they must be heeded. And therein lies the problem.

Scattered around the country, and well within earshot of most of us, these 450-plus small regional NOAA stations operate on seven frequencies in the 162 MHz band providing 24-hour weather forecasts, watches and warnings that include bulletins about threatening weather, from flash floods to developing tornadoes. Way back in 1975 under a White House policy statement, NOAA Weather Radio was designated the sole government-operated radio system to provide such warnings into private homes for both natural disasters and nuclear attack. The system is designed to supplement warnings by sirens and commercial radio and TV.

I've got an Oregon Scientific "All Hazards" receiver in my office, and another RadioShack unit at home. Both units, and many others, including built-in NOAA receivers on my mobile and base CB automatically sound an audible warning, followed by a voice message when particularly severe weather threatens. Personally, I wouldn't be without these lifesaving radios. You can't receive warnings from your radio or TV station if they've been knocked off the air, and if your town is like mine, there are sirens and horns blowing for everything from volunteer fire fighter call-ups to medical emergencies. So much for being informed about a funnel cloud bearing down on your county.

So in an effort to get every home, office, school, restaurant, grocery store, bus and train station, theater, retail store, office building, places of worship and sports stadium equipped with these simple receivers, NOAA and Vice President Al Gore are on a major campaign to educate the public about the benefits of receiving timely, accurate emergency weather and disaster warnings. They often compare the cost of a NOAA weather radio with a pair of shoes: The analogy is that for the price of an average pair of shoes you can get a real lifesaver. For once in my life, I'd say Uncle Sam is telling the truth!

But the news from NOAA recently got even better! Now NOAA has incorporated a new system that enhances the value of these small radios with a state-of-the-art technology known as "Specific Area Message Encoder." In addition to turning on automatically, alerting occupants or travelers with a loud series of tones followed by a voice message, the "SAME" system sends bulletins from the U.S. Emergency Alert System and Federal Emergency Management Agency for your county. You've got to initially "program" the radio with a couple of key presses in order for the system to work with these high-tech marvels, but once you've taken the two minutes to go through the motions, your new SAME receiver will only alert you to messages that affect you, not your in-laws 50 miles away. The broadcast warning could be about an approaching forest fire, toxic chemical spill, explosion, or flash flood. The lifesaving potential is obvious. And the radios aren't just for emergencies. As the NOAA system expands, the round-the-clock weather broadcasts and warnings will soon be supplemented by post-emergency broadcasts to help us after a tragedy.

RadioShack stores typically sell out of the receivers (Catalog No. 12-249) as quickly as the shelves are stocked, especially in areas recently stricken by disaster. After all, when seconds count, who wouldn't want an extra measure of protection from severe weather? I know I do. And frankly, if you don't, it's time you checked in with your shrink! It's certainly better to be awakened by the radio than by your roof peeling off the house. Just in the past year, the U.S. has been ravaged by killer tornadoes, floods, blizzards and thunderstorms with golfball-size hail, resulting in dozens of deaths and millions of dollars of property damage. While we can't always avoid prop... (Continued on page 77)
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Getting Those QSLs

Dear Editor:
While I cannot speak for foreign stations, I suspect the reason Pop’Comm reader Ralph Larson and others are having difficulty getting returns on their reception reports is similar to the causes here in the States.

Due to improved equipment, many domestic stations no longer have a full-time engineer, let alone an engineering staff. Also, the FCC requirements have changed, and stations are no longer required to have fully-licensed personnel to maintain their equipment. Most stations use the services of a “contract” engineer who comes in when called. We will not get into a discussion of the wisdom of such policies, but this is the practice and fact of life.

When a reception report arrives at many stations today, no one in the outer office knows what they are, what to do with them, or often cares about them. I am the chief engineer for one LPTV, four FM’s, and one AM station, and have not been given or received even one QSL request in the past two years. I can understand it in the case of the two low-powered, satellite-fed religious FM stations, and the TV station, but in the case of the two 100-kW FM stations and the 5-kW AM station, I have been surprised. I’m sure the office staff of these three would forward any such requests, as they put everything else that they don’t know what to do with in my box!

It might help if your request was accompanied by an explanation of what it is along with a self-addressed, stamped envelope. Today, you are not dealing with an engineer who understands that you have invested time and equipment to pick up the station, but rather the receptionist who is going through today’s mail and deciding who gets what.

Better luck on your QSL requests in the future. 73.

Don Patrick
<Oldestimer@aol.com>

Time To Change

Dear Editor:
Thanks for your excellent editorial and refreshing, logical perspective on the confused world of amateur radio today. It’s true that many would-be hams avoid the hobby because of the “old, cranky, bureaucratic codgers” you mentioned, and their unreasonable rules that make it so unwelcoming and unenjoyable! Ham radio should be a fun and friendly hobby, especially for newcomers. It’s a shame so many are insistent on preserving the requirement of Morse code. Given the amazing wireless technologies existing today, isn’t it silly to cling to such an antiquated and clunky form of communication? And isn’t it about time the “no-coder” hatred stops?

Steve Smith, KE4RKV, IN

Comment Deadline On RM-9242 Extended

The reply comment deadline on Low-Power FM proceeding RM-9242, which we exclusively brought you in July’s Pop’Comm, has been extended from May 26 until July 24.
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QSLing Power: Tips And Techniques For Building Your Collection

The Rewards, Frustrations, And Fun Of QSLing Shortwave Stations

By Gerry L. Dexter

Verifying your loggings by sending reception reports and receiving QSLs from stations in return is, for many SWLs, one of the most traditional, satisfying, and enjoyable parts of the DX listening hobby. At the same time, though, it can be demanding, disappointing, aggravating, frustrating, and maddening. So just how do you become an accomplished QSL collector, and fill your mailbox with cards and letters from stations all around the world?

All too often we seem to encounter situations in which the initial reception report proves to be only the first of many you have to send before getting a reply. In fact, sometimes the effort to QSL a station can go on for years. Some stations are champs at ignoring the efforts of even the most determined listeners, no matter how well schooled they are in all the ins and outs of the QSLing game.

There seem to be more and more stations which don't reply with a QSL in response to the first reception report. Perhaps it's a sign of tougher economic times some stations are experiencing, or a sense some stations have that too many listener reports are of little value, or are rude or demanding. Whatever the reasons, there are things you can do to improve your chances of getting a reply.

You won't score on the first try every time of course, but, by taking some precautions and following a few common sense guidelines, you can certainly increase your response percentage for both your initial report and follow-ups you send.

Let's look at a couple of dozen or so steps you can take that will bring more QSLs to your mailbox.

**GET THE BASICS RIGHT** - If you are wrong about the fundamental reception information, chances are real good you won't get a QSL! Remember to use Coordinated Universal Time (UTC) or GMT (essentially the same thing), and not your local time. And write it correctly, using four numbers, not just two or three (0030, 1245, etc., not 00,30).

Remember that the UTC date may not be the same as your local date. If you live in the Eastern time zone, it becomes the next day at 7 p.m. EST. Thus, at 7:30 p.m. EST (0030 UTC) September 4, it's actually September 5. UTC time. That change occurs at 6 p.m., 5 p.m., and 4 p.m. local standard time, respectively, for the Central, Mountain, and Pacific time zones.

Get the frequency right. If you have a communications receiver with a digital readout, this part's no trick at all. But, if you're using an analog receiver, you need to listen for a frequency announcement, or estimate it as closely as you can, and then be sure to make it clear in your reception report that the frequency quoted is an approximation.

**GIVE AN HONEST READING ON RECEPTION QUALITY** — Don't tell a station they had a good signal when it was actually only fair, or worse. Include an estimate on the station's signal quality, using four numbers, not just two or three (0030, 1245, etc., not 00,30).

Most QSL collections contain cards from stations which are no more, such as this from KGEI — The Voice of Friendship. When it closed a few years back, it was one of the oldest in the U.S.

Some QSL cards show the station’s facilities, such as this one, issued by the resident engineer at BBC Far East Relay Station, Singapore (Thanks: Mark Lussky, CA)
Got Opto?
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DXers who've been around awhile have cards which date back decades, such as this 41-year-old card from Radio Denmark. They aired English on a regular basis back then. 

strength, interference level, noise level (static), propagation (fading), and an overall quality report. Those five elements make up the SINPO reporting code. A rating of five is tops—a powerhouse signal, no interference, static or fading and, hence, an overall five rating. "Ones" across the board are the other extreme. Nearly all reports will be a mixed bag, such as 43343. It's generally accepted that you cannot have an overall rating that is higher than the lowest of the other four figures. Smaller domestic stations may not understand the SINPO rating system, so it's a good idea to include a verbal description.

• IDENTIFY THE INTERFERENCE — This isn't always possible, but it's a real help to station engineers when you can tell them who or what is causing a problem with their signal. Perhaps another transmitter 5 kilohertz higher was causing a "splashing" effect, or a radioteletype station came on right on their frequency. There are books available listing "utility" stations which can help you in pinning down such interference sources. Of course, if you're equipped with an RTTY/CW decoder you can often "decode" the transmission and get an ID that way.

• PROVIDE GOOD PROGRAM NOTES — Be as detailed as possible when reporting items you heard in the broadcast. List the programming content in an itemized log-type format rather than in a paragraph form. Here's an example:

  0012 - news of civil unrest in the south.
  0014 - end of news, program preview about a show on health coming at 0100.
  0015 - station ID "This is Radio Malaga, the voice of the coast."
  0015 - music, "The Singing Oyster.
  Stan Kenton Orchestra.

You should try to provide at least 30 minutes worth of program details whenever possible. Obviously you can't do this if you tune in 15 minutes before sign-off, or you catch a sign-on and then the station fades out 10 minutes later. Sign-on and sign-off procedures (with exact times) are particularly valuable as proof of reception, so you can usually get by with a period of under half an hour when a sign-on or sign-off is involved.

• PROGRAM COMMENTS — The international broadcasters are especially interested in your comments on their programs. Always put a little thought into this, giving them a considered opinion or some concrete suggestions. Saying something such as "I liked your music" doesn't tell them a whole lot. It's also important to let them know how often you tune in their broadcasts.

• PERSONAL COMMENTS — Let the people at the station know something about yourself; what you do for a living or what you are studying in school, your family, your town, and your other interests. If you or someone you know has a connection to the country involved, however tenuous, be sure to mention it. This will help you be seen as more than just another name.

• YOUR EQUIPMENT — The station will probably be interested in the type of receiver you used, as well as any associated equipment. Smaller outlets aren't as likely to know about receiver names and model numbers, and are even less likely to be familiar with accessories, so only give a brief description, such as "a table top communications receiver with digital readout," or "a large (or small) portable," etc. Add a note about the type, length and height of your antenna, too.

• ASK FOR THE QSL — Books on salesmanship always tell you to "ask for the order." Don't assume the station will know you want a QSL. Ask for one, but be polite! No station anywhere owes any listener anywhere any kind of a reply. QSLs are a favor to us—a way of thanking us for listening. Rude and demanding requests for replies have an opposite effect, and they damage everyone else's chance for a reply.

• SAY NO TO POSTCARDS — Don't try sending your report on a postcard if you're reporting with the intent of getting a QSL. Among other negatives, you just can't get enough information on a postcard. Sending postcards are OK, only if you just want to give the station a signal report or make a comment, and are not seeking a QSL.

• USE THE RIGHT ADDRESS — You can't be very successful at QSLing if you don't have a workable address. Addresses of most stations can be found in the World Radio TV Handbook and Passport to World Band Radio. Both of these annual guidebooks are available in at most any SWL supplier. Check the dealer ads in Pop'Comm.

• SEND IT AIRMAIL — Sure, you can save a few cents if you send your report sea mail. But you'll also add several weeks to the delivery time, and sig-
Verification of Reception

Radio: 
Frequency: kHz  Power: watts 
Date:  
Time:  
We have checked your report and confirm that the station you heard was ours. 
Signature  
Official Stamp

Here's an example of a self-prepared QSL, known as a "prepared card." If you're into DXing Central and South America, get a bunch printed in Spanish.

Here's another nasty. This guy and his gang were responsible for the gas attack in a Tokyo subway. Aum Shinrikyo had a regular program on shortwave for a year or two, and sent QSLs to all who wrote.

nificantly increase the odds that your report will never reach the station.

- **E-MAIL** — If a station is on the Internet, then E-mail has to be an extremely strong temptation. It's delivered practically instantaneously, after all. Some DXers have experimented with this method of reporting, but the results have been a bit mixed. Some stations have replied with a QSL via E-mail which, for most, is a possibility one might describe as unappealing, to put it mildly. Others have sent reports via E-mail, and asked for, and received the station's regular QSL via the postal system. Of course, the station has to bear the burden of postal expenses, but otherwise, the "E-mail to and regular mail from" approach will be more and more attractive to DXers. (Wait until the day we can feed a station's real-time signal right back to it over a computer line so they can hear it live!)

- **LANGUAGE** — If you're sending a report to local or regional stations in Latin America, Indonesia, or countries formerly controlled by France, make every effort to write your report in the applicable language. Some clubs have issued brief reporting guides for one or more language. Ultimately, you may have to ask a language teacher at the local high school or nearby college to translate a basic (stock) letter with a couple of follow-up letters which you can use over and over.

- **FOLLOW-UPS** — After three or four months go by without a reply, you can send your first follow-up report. This amounts to a copy of your original (or another printout from your word processor), along with a cover letter stating that you haven't received a reply to the first letter which you sent on such and such a date. Pretend the letter probably got lost in the mail. Express your hope that this one will be received, and that it will be answered. Again, be polite.

- **RETURN POSTAGE** — Some stations reply without your having to send along something to cover their return postage costs. But including return postage will significantly increase your chance for a reply 70 to 80 percent of the time. International Reply Coupons (IRCs) at your post office are normally good for one unit of airmail return postage in most countries. Be sure the clerk stamps the coupon in the coupon's left hand circle, otherwise the IRC will be useless. Mint (uncanceled) stamps of the country you're sending your report to are the best form of return postage. Some DXers drive DXers mad by ignoring reports. Fortunately things seem to have changed at last. At least Steven Throw of Quebec got one.

- **GOODIES** — Sweeten the pot. There's a limitless variety of lightweight...
"extras" you can slip inside the envelope as a little gift for the station. These include picture postcards, radio station bumper stickers, radio station play lists, baseball cards, photos of yourself, your family, your radio shack, tourist brochures, badges, buttons, patches, and trinkets of your radio shack, tourist brochures, cards, photos of yourself, your family, and prepare (or at least sign) the replies. If you send your report to the specific individual in charge, your chances for a reply are much improved. The QSL column in the North American Shortwave Association’s monthly bulletin contains the names of many currently active verification signers each month. (For a sample issue send $3 to NASWA, 45 Wildflower Rd., Levittown, PA 19057. Both Passport to World Band Radio and the World Radio TV Handbook list station personnel, so if you don’t have a specific name, you can usually find a likely prospect in these books.

- **REGISTRATION** — If you feel mail service to the station isn’t getting your report through, you might opt to have your report registered at your post office. This is a fairly expensive service running to several times the cost of air mail postage, so you probably won’t want to do it too often. Once in awhile, though, it can prove to be just what the doctor ordered.

- **PREPARED CARDS** — Some stations don’t want to have the expense of printing their own QSL cards, and often they don’t want to spend the time and other costs involved in writing letters or even filling out cards. A prepared card is a “roll-your-own” QSL which you fill out with the reception details, with your own name and address on the face, and send to the station for signature and/or authentication with their rubber stamp. Often it’s a good idea to put mint stamps of the country right on the card, although in some cases there are more stamps to stick on than there is room on the card. In those situations, place the mint stamps on a self-addressed airmail envelope. Using prepared cards cuts the station’s time and expense to the absolute minimum. The drawback, of course, is that you get your own work back, and not a station card or letter. But it is a verification!

- **TAILOR YOUR REPORT** — Try to keep in mind the sensitivities of the
Stations also sometimes issue QSLs which commemorate important events in the life of the station or country. Thanks to Andy Johns, TX, for this special card he received from Adventist World Radio on their 25th Anniversary.

people or politics of the area to which you are writing. QSL experts were into this long before the politically correct crowd took over the world. You may not agree with the religion or politics of the country, or that country’s view of your country, but it’s wiser to bite your tongue and be as cordial as you can. In general, if you’re in doubt about whether a particular remark may be prudent, it’s better to talk about something else or say nothing.

- **PERIOD REPORTS** — If your report is being ignored, try building a report based on multiple loggings taken over a couple of weeks or a month. One of the reports can be a standard type complete with program details, while the rest can be just date, time, frequency, and SINPO loggings, since you don’t need to offer any proof for these additional readings. These bare bones logs can be written or typed on plain paper, or on one of the commercially available SWL log forms, or a form you create for this purpose.

- **BE PERSISTENT** — The more stations you hear and send reports to, the more will fall into the “tough nut” category. There’s just no way around the fact that, in some cases, you need to be psychologically prepared to send many, many follow-ups over a period of years. Some DXers have kept after a station for 10 or 15 years before they got their reply! You’ll need to develop the will and the ability to hang in there and not get discouraged, regardless of how long it may take. You need to develop the attitude that somehow, someday, you will QSL this station!

- **WORD PROCESSING** — If you own a computer, you’re equipped with an extremely powerful tool for writing better and more attractive reception reports, writing follow-ups, cover letters, designing and changing report forms, designing various logs, and even designing and printing your own prepared cards. Consider the various ways you might be using your computer to make the entire reception reporting process easier a snap. You should be able to cut the time you spend writing letters and filling out forms by at least two-thirds! Folding paper, licking and stamping envelopes will be the most time consuming part of the job!

- **CREATIVITY** — Be creative. Every report a station receives is saying the same thing: “Here I am!” “Notice me!” “Open me up!” Make your report different. Find ways to make it more attractive, more useful, more interesting. Make it stand out from all the others, and you’re more likely to get a reply.

QSLs have a wonderful habit of turning into nostalgia a couple of years after they’re received and have found their way into your verification album. Nothing beats spending a rainy Sunday afternoon browsing through your collection — especially if you’re showing it off to a fellow SWL who turns green with envy over the rare ones. Well, nothing, that is, except the next QSL! Hey, maybe there’ll be one in the mail today! Good listening, and good QSLing!
In February of 1930, during the Great Depression, the Federal Radio Commission (FRC) issued broadcast license KGIZ to the Grant City Park Corp., Grant City, Missouri. This station was authorized to operate with 50 watts on 1500 kHz. One studio was located in the Grant City Trading Post, while another was at Rainbow Park, a half-mile west at the transmitter site. Ed Kelso’s Rainbow Park was a health resort consisting of a large main hall facing a gigantic swimming pool. A number of small wooden cabins surrounded the site in a wooded setting on the main highway west of town. Two large steel lattice towers were erected on the property to support the station’s flat-top antenna system.

KGIZ took to the airwaves in June of 1930, operating full time. Six months later, the station doubled its power to 100 watts and was broadcasting entertainment, market, and weather reports, agricultural information, and educational features. It called itself “The Voice of Rainbow Park.”

Gone To The Big City

In July of 1933, the license was sold to KGBX, Inc., a station that had recently relocated to Springfield, Missouri. The FRC granted KGIZ authorization to also relocate to Springfield, up its power to 500 watts, and switch to daytime-only operation on 560 kHz. KGIZ had been purchased primarily for its license, so most of the equipment used at Grant City was to be abandoned. On December 22, 1933, operations at Grant City ended, and the station was switched to Springfield. In January of 1934, the KGIZ call letters were dropped, and the station became KWTO, representing the new slogan “Keep Watching The Ozarks.”

KWTO operated from the existing KGBX locale in the Springfield Chamber of Commerce Bldg., 508 St. Louis Ave. In March, KWTO was permitted to increase its power to 1 kW. New investors began participating in both stations in late 1935, and the licensee’s name was changed. A year later, each of the stations became affiliated with one of the two NBC networks. At that time, KWTO increased its power to 5 kW as it established a new transmitter site on rural Bolivar Road (Highway 13), where a 429-foot, self-supported Blaw-Knox tower was erected. This was close to the KGBX site, also on Bolivar Road.

The NBC affiliation ended for KWTO in 1937 as the station became an inde-
Famous for its top-gun DX receivers, Japan Radio once again pioneers with a new receiver. Only the NRD-345 offers Japan Radio performance and quality at a surprisingly affordable price.

The NRD-345 delivers hour-after-hour of listening pleasure with synchronous AM detection to help tame fading, dual IF filter bandwidths (with a third optional), and high dynamic range. Compact, light, and refined, the NRD-345 offers advanced multifunctions, 100 memory channels, and even personal computer control. The NRD-345 brings shortwave listeners an outstanding value in a high-performance receiver for under $1,000.

- Synchronous AM, AM, CW, SSB, and FAX modes.
- 0.1 to 30 MHz coverage.
- Dual IF filter bandwidths, 4 kHz and 2 kHz, with optional filter position.
- High sensitivity and wide dynamic range. The RF amplifier and first mixer in the front-end incorporate four low-noise junction-type FETs with excellent cross modulation characteristics to ensure both high sensitivity and high dynamic range.
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- Noise blanker.
- Clock/Timer.
- High/low antenna inputs.
- Memory scan.
- Personal computer control with optional RS-232C interface cable.
- One-chip DDS-IC in PLL circuit to enhance carrier-to-sideband noise ratio.
TV engineer John Geloso poses with a vintage 1928 mechanical scanning disc receiver. The tiny screen is at the center of the upper panel. The lower panel houses the receiver portion.

In 1941, the FCC gave the station authority to add night service with 1 kW, though the station was not able to put this into effect for a few more years due to delays caused by wartime conditions.

In 1943, KWTO assumed the NBC Blue Network (which was to become the ABC Network in 1945) from sister station KGBX. In early 1944, the licensee of both stations was forced to sell one station or the other in order to comply with the FCC's newly implemented Duopoly ruling. A group of new owners paid $100,000 to take over ownership of KWTO. At that time, night service with 1 kW was finally commenced from the station's new multi-tower transmitting site on James River Road, south of the city.

In 1947, KWTO moved out of its shared KGBX studios and into new studio facilities at 606 St. Louis Ave. In 1949, the KWTO transmitter facilities were listed as South Fremont Road, south of Springfield. This was a year before FCC permission was granted to operate with 5 kW at night (matching its daytime power level).

In 1956, the KWTO studios were relocated to a three-story stone mansion at 1121 South Glenstone, formerly a private estate. In early 1968, when the station was airing 20 hours of country music each week, KWTO joined ABC's American Information Radio Network. In 1972, the station went into a full-time country music format.

In 1974, KWTO was sold to Salina Broadcasting, Inc. for $1,250,000. The station moved into new quarters at 2750 South Campbell in 1982. In 1985, KWTO and its sister FM station were again sold, this time to DKM Broadcasting Corporation Midwest. In 1988, KWTO's licensee's parent corporation was acquired by North Carolina-based Summit Communications, Inc. for $200 million. The sale included not only KWTO (AM/FM), but also stations in six other major markets.

In 1988, authorization was granted to move KWTO's antenna to U.S. Route 65 and County Route EE, near Selmore, Missouri, and to reduce night power. By late 1988, the station was a full-time "Modern Country Music" outlet. A year later, Summit sold KWTO (AM/FM) to Cole Media for $4,250,000. Two years later, the new owners changed it to a talk radio format. Offices were soon relocated to Suite 401, Four Corporate Center, 1949 East Sunshine.

In 1995, Cole Media sold KWTO (AM/FM) for $1,882,000, representing more than a $2.3-million loss in Cole's six-year investment. The new owner was Meyer Communications, Inc.

Today, KWTO is Missouri's 16th oldest continually licensed AM station. It operates on 560 kHz with 5 kW (night directional) from 1949 East Sunshine (Suite 401). It continues as an ABC News/Talk outlet, and presents 20 hours of farm programming each week.

Thanks to Broadcast Pro-File, 28243 Royal Road, Castaic, California 91384-3028, for permitting us to excerpt from their lengthy and highly detailed report on KWTO. BP-F is a professional research service that can, for a reasonable fee, provide historic profiles on any U.S. AM and FM broadcaster, past or present. Send them $1 for a complete catalog of their available services.

Our excursion last April into the very early days of television broadcasting...
British inventor John Logie Baird (right) shows his television camera to musical comedy star Jack Buchanan in 1928. The lens is inside the tube while the scanning mechanism is covered (far right). Natural light was used for Baird's TV operations, hence the rooftop setting of the photo. Black and white broadcasting in England began later that year.

brought in a very enthusiastic response from readers, including Ben Nye, Jr., of Inwood, New York, who wonders what mechanical spinning disc TV receivers looked like.

Well, Ben, let's say they weren't things of beauty. From the exterior, they were large and bulky, with the puny 1.5-inch viewing screen being about the size of a postage stamp. Inside the cabinet was the receiving apparatus, plus an electric motor supporting a vertically mounted 20-inch bakelite disc. The bakelite disc was punched with 48 holes, each at a different distance spiraled from the disc's center. The disc had to be spun at around 900 rpm in order for the images to be visualized on the screen. A neon tube behind the disc produced the light that shone through the punched holes, flickering in synchronization with the broadcast signals.

An inquiry from R. Sokolowsky of Seattle, Washington, points out that he remembers when color TV came in around the 1950s, and asks if we can provide any specifics on its first appearance.

Again, let's forget electronic television and go back to the early days of mechanical disc television.

England's great TV inventor, John Logie Baird, first demonstrated color television to the press and scientists in London on July 3, 1928. This was a three-color (red, green, blue) process using a mechanical disc. Instead of the usual single set of punched holes, there were three sets of 20 holes, each set being covered with a filter to pass only one of the colors. The receiver required a neon lamp to give off the red light, and a lamp containing a combination of helium and mercury vapor to provide the blue and green.

At the transmitter, three spirals were also used. With each spin of the disc, the image was scanned in a single color, and transmitted that way. At the receiving end, the synchronized disc gave the illusion of the object being in color.

In the demonstration, an image of a bowl of flowers was transmitted and displayed the vivid blue and red buds. A person's face was transmitted with natural looking skin tone, even a red tongue. A police helmet shone bright blue. A basket of strawberries was dazzling red against the white basket. A moving image of a man tying a red and blue handkerchief around his head was sent.

Baird gave the first public black and white TV demonstrations in London on September 22 and 29, 1928, at the Radio Exhibition. Black and white broadcasting in England began later that year over London's 2TV, with 4 kW on 1600 kHz.

C.J., of East St. Louis, Illinois, asks if there were any African-American TV pioneers. I'm sure there were quite a number, but the one that immediately comes to mind is John Thomas, owner of Jamaica Television and Radio, Jamaica, New York. About 1945-'46, his company held experimental TV license W2XJT for operation on frequencies that were later to become TV Channel 13.

Here's a Website that I've found quite fascinating. It's Chuck Pharis' page and it's totally devoted to old-time TV and radio, with photographs, station histories, and more. Chuck is an old-time TV cameraman and a major collector of historic broadcast TV equipment. Check out his Web page at: <www.wavenet.com/~pharisc>.

We're always interested in hearing from readers with old-time radio and wireless memories, photos, picture postcards, QSLs, station directories, anecdotes, news clippings, and what-have-you. Our E-mail address is <Radioville@juno.com>, and you can also get to us by snail-mail in care of Popular Communications. Hope you'll join us next time!
I t's been a busy few months here at the "Radio Connection," with the sum- mer weather finally arriving and tag sales in full swing each weekend. You just never know what treasures await on the next street, block, or town. As luck would have it, two of my neighbors held tag sales on the same Saturday last week. Not too shabby, considering I live on a dead street with 13 houses — and in 30 years no one ever held a tag sale before!

One sale yielded a rather common Crosley wood table radio; the other a German radio, something we have been searching for as fodder for future columns! Even better was the discovery of two still-in-the-box Heathkits: a VTVM and a microprocessor trainer! Heck, it's nothing rare, but every year it seems a bit harder to find those real antique radio treasures. How about some photos of treasures you folks have uncovered in old barns and cellars?

We'll try to get around to the German set sometime next year, if I can ever find a source for schematics for foreign sets. Reader James Ashworth faces a similar dilemma. He's seeking help finding a model number and schematic for the AM/FM Telefunken shown below. Date codes place the set in the early 1970s, and it uses five tubes. Alas, most of the tubes are missing; only an EL95 and ECH81 remain. The model number was probably on the back cover, which was also missing when Jim acquired the set. Can anyone help him? If so, drop me a line at my E-mail address, and I'll relay the information to Jim.

We were extremely pleased to receive a nice letter from Sarah Wanamaker of California. She also enclosed a photo of her extensive collection of early transistor radios! Transistor radios are a "hot" collectable these days, especially the early 1950 and 1960 models. Here's Sarah's letter:

I'm often asked why I collect transistor radios; most folks think it's a strange hobby. Why not those beautiful old wooden ones? While I do love the old tube sets, transistor radios occupy a special place in my heart. I've always been fascinated by miniaturization.

Jim's Telefunken is an FM/AM-only model, and appears to have been made in 1971. Can you help identify this radio?

Even as a child, I held transistor radios in awe. One of my fondest memories is that of going camping with my family in the desert. We always took along our 8-transistor Airline portable, a model GEN-1227. It was nothing special, but I would tune to KNX out of Los Angeles at 9 p.m. for "CBS Mystery Theater," hosted by E.G. Marshall. Surrounded by the quiet noises of the desert, I would listen as Mr. Marshall opened the creaky door and welcomed his listeners to another hour of eerie mysteries. Of course, sometimes I had difficulty getting to sleep afterwards!

I began playing with radios and electronics early on, with the help of my parents. I read that one could build a radio using only an antenna, ground diode, and high-impedance headphones. I found that hard to believe, until...
I put one together for myself. I was surprised to hear the local radio station coming in so clearly on such a simple device. I soon graduated to constructing a one-transistor radio kit, and later to a full-scale multi-transistor radio, among other things.

I always had transistor radios around as a child, the first radio was a mustard-yellow set from Woolworths; it cost a grand total of $3.97. Unfortunately, the temptation to take it apart and examine how it was made was too great. My next radio, an AM/FM Panasonic "Rolling Toon" fared better, and is in my collection today.

It was about four years ago that I actively started collecting radios. I started with tube sets. I ended up with several, including a 1937 Philco console. It soon became very clear that I was not going to be able to collect very many tube sets and still have room to move in a small house! So, I decided to concentrate on transistor sets, and now have over 200 radios in my collection. My main interest is in the design of transistor radios rather than their performance. I find transistor radios produced in the first decade of the transistor era (mid '50s to mid '60s — Ed.) to be the most interesting, especially the fantastic reverse-painted Japanese ones. After viewing some exquisite Web sites focusing on tube radios, I decided to build a site for my radios. It now has over 100 radios on display, and is at <http://www.sonic.net/Harah/radios.html>.

Sarah, thank you for sharing with us your interests in vintage radios, I'm sure many of our readers will be delighted to view your Web page. Some of those transistor sets bring back some fond memories of the '50s and '60s! Most folks think of antique radios as a "guy" thing. Not so. There's something for everyone in this hobby. Sarah is also an active participant in the antique radio newsgroup at <rec.antique.radio+phono> and is extremely knowledgeable about radio history and electronics. (Before someone asks, a reverse-painted transistor has a clear plastic case, and is painted on the inside. They're quite stunning in appearance.)

The Philco 89 Saga Continues

I have to admit that the Philco restorations have been going a bit slowly. Summers are best spent outdoors, and radio restoration seems best suited for those long, long winter nights when there is little else to do. They seem to be coming all to soon!

One problem you'll run into in almost any vintage tube radio is deteriorating gum rubber shock mounts under the tuning capacitors. For no apparent rhyme or reason, some mounts survive the ages, others

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The old gum rubber grommets were dried out, and they crumbled when handled. New rubber grommets are being sized to fit the metal spacers.

harden and shrink, becoming unsuited to the task assigned them.

So it was with my Philco 89 chassis. The old rubber mounts had dried out, and crumbled when removed. This is not as serious a problem in the design of the 89. The tuning shaft and tuning reduction system is an integral part of the capacitor assembly. In other designs where the tuning capacitor sits alone, with a dial string coupling to the tuning shaft pulley, the capacitor will wobble as the tuning direction is changed, resulting in considerable backlash when trying to tune in a station.

As shown in the photo, the old rubber mounts are replaced with new rubber grommets. Often two or three grommets are needed for each mounting screw. The grommets can be cut in half and stacked to achieve the proper thickness needed for a firm mount. The standard hardware used to mount tuning capacitors usually
consists of the mounting screws, grommets, and metal spacers. The metal spacers are inserted inside the grommet opening and define the mounting height of the capacitor above the chassis. Too little grommet material will allow the capacitor to flop; too much and you end up over compressing the material until the spacers prevent further tightening.

Sometimes the original mounting screws are rusted or missing. When replacing these screws be very, very careful that the replacements are not too long! If the screws are too long, they'll run into the capacitor stator plates and damage the capacitor beyond reasonable repair.

Another problem I ran into was that all four of the tube shields were missing. I've been searching for replacements for several months, and only have turned up a handful of other collectors in the same boat I'm in! Those tubes look mighty pretty when washed and shined up, and it seems a shame to cover them with a metal cover hiding their beauty! Besides, it also hides the warm glow of the filaments at night! Alas, the shields are there for a purpose! Most sets will oscillate badly if the shields are missing. You'll have unwanted stray coupling between IF, RF, and audio stages. Look at the flying grid leads in the photos. With shields missing, the tube plates can easily couple back to the grid lead wires causing all sorts of feedback problems. If there are two in-line IF amplifiers, the coupling between the plates is the same as grid-to-plate coupling, again causing oscillation problems.

This is something you should always evaluate before buying a set. Missing tubes are easy to replace, and I suspect I will find replacement tube shields for the 89 in short order, as there were thousands of Philcos made and many models used the same tube shield style. But finding tube shields for less common sets may be more of a hassle than it's worth.

I decided I wanted to enjoy the set and get it running despite the missing tube shields. I'll find a set sooner or later. Fortunately, thanks to the layout of the set, the only problem was feedback between the grid lead going to the grid cap of the triode detector/first audio stage, and the 42 tetrode audio power amplifier stage.

When I first powered up the radio, it howled like a Banshee! With the shield in place on the triode first audio, the grid lead is normally brought down inside of the tube shield, and through a rivet hole into the bottom of the chassis. There were two problems. I didn't have a tube shield, and the rivet was replaced with a screw when the socket was remounted. Lucky for me, there was a nearby unused chassis hole where I could sneak the grid wire through. I could fuss around with the grid lead dress and get things somewhat stable, but I wanted something more permanent and that looked original.

The solution was to shield the grid lead. I had replaced the old grid wire with some new black cloth wire from Antique Electronic Supply. The next step was to find a length of woven shield, like the braid used in miniature RG-174 coax cable. The grid lead wire was carefully snaked through the braid, and the braid attached to a ground point below the chassis. The next step was to hide the braid with a section of black heatshrink tubing. As you can see, the "cure" doesn't look too bad!

Well, we've got lots of good photos this month, so I had better shut up until next time or poor Harold will have kittens as I run over my allotted space! See you in September!
Improving Your Computer Radio Performance

Your home or laptop computer might make an exceptional radio system. ICOM offers the PCR-1000 computer radio that is 100 percent PC external, and tunes from 500 kHz to 1300 MHz, all modes.

WiNRADiO offers their Digital Suite with digital signal processing that is just about 100 percent INSIDE your home computer. And Kachina 505DSP radio system also incorporates a powerful amateur transceiver that goes external to your computer, with optional cables so the "radio" may be remotely located up to 75 feet away from your PC.

Soon there will be more receivers and transceivers taking advantage of fixed and portable computer power. Most will give you broadband radio reception from 500 kHz to 1500 MHz, and some will also give you two-way transmit capabilities, like the Kachina system.

Noisy Computers

But laptop and home computers are noisy. There was a time a few years ago that the Federal Communications Commission vigorously enforced the broadband noise coming out of home and office computer systems. Office computers actually had lower noise emission requirements than home computers. Home computers should have additional shielding to minimize the interference to nearby televisions or cordless phone systems.

But since all computers radiate broadband noise, when you tie your new ICOM receiver, WiNRADiO receiver, or Kachina transceiver up to your computer system, you will need to do some serious noise elimination.

Where do you think the noise gets in? If you answered, "Out of the computer and directly into the RF section of the radio," you might be wrong. When you consider that the WiNRADiO setup is a radio receiver actually inside the computer, you know that they have gone to extraordinary measures to shield the board from all of the broadband RF noise floating around on the inside.

With Kachina and ICOM on the outside, both manufacturers have gone to great lengths to bypass as much noise as possible coming in from the interface cables that hook into the radio receiver and your running computer. "At Kachina, we are extremely proud of the engineering that went into our system to minimize computer noise getting into the sensitive radio receiver," commented Kachina's Aubrey Stewart, W6ODG, at the recent Amateur Electronics Supply Superfest. "We have gone to great lengths to shield all of our radio sections to insure there is no direct noise pick-up," adds Kachina.

ICOM America reveals, in its computer radio installation manual, exactly where the major ingress of noise will come from — directly out of the computer and into a nearby antenna. "Antennas play a very important role in receiver operation. Connecting a poor quality antenna to the ICOM PCR1000 will result in less than optimum performance."

"Select an antenna, such as a well-matched 50-ohm antenna and feedline. A voltage standing wave ratio (VSWR) of 1.5:1 is recommended for a desired band." OK, I can go along with this, but in the real world of scanning from 500 kHz to 1500 MHz, there is zip opportunity to have low VSWR throughout the entire spectrum unless you have a 50-ohm non-inductive resistor on the end of the coax.

So the BIG determination for how good you're going to get your new computer radio system to work is not necessarily the precise type of antenna you are using, but rather the capabilities of getting that antenna as far away from your computer as possible!

The ICOM PCR1000 computer radio includes a small telescopic antenna tied into 12 feet of RG-174 type coax. The coax is smaller than RG58, but slightly larger than RG174. I assume it's coax because of ICOM's statement of a 50-ohm antenna line. The antenna is designed to stick on a window — you pull up the whip to obtain reception. I doubt that there is any loading within the base section of the whip, so I would estimate its resonant frequency as 150 MHz and higher. It also appears the braid of the supplied coaxial-type cable will serve as the counterpoise for the antenna. The little black box has its own connection point for earth ground.
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“Supper’s almost ready.”

RadioShack
PERSONAL FM TRANSCEIVER

(Actual Size)
#21-1802

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During tests of the ICOM PCR1000, we found that all of our computers put out enough noise that the whip could easily intercept this noise and display it as spikes on the pan scope setting. It was like looking at a forest, and with only 12 feet of interconnection cable to the telescopic whip, there was no way of getting away from the noise. And while strong ham radio and commercial radio signals were able to overcome the forest of noise being radiated by the computer, and picked up by the nearby antenna, weak signals simply disappeared into the background noise forest.

So the solution to good reception with any one of the three radio/computer systems is an external antenna system. Also, good grounding techniques will help minimize noise pick-up. Coming up with an external antenna system that has the approximate resonance of the selected band you wish to receive will also make a big difference on what you see on your computer's radio screen.

All three manufacturers offer a ground connection point to their system. On the WiNRADiO system, where the card is on the inside of the computer, your ground is the computer's metal body. We use ground foil to obtain a good radio frequency ground because it has low inductive reactance. Wires coming from your computer radio's black box just won't work. In fact, using wire as ground will actually increase the reception of computer-radiated noise. You want to channel that noise down to earth ground.

**How It's Done**

Two-inch wide or three-inch wide copper foil is the very best for a low-inductance ground. Copper foil is available from most hobby and ham radio stores. Copper plumber's tape also works quite nicely as a good ground conductor.

Grounding to the earth is good, but not necessarily the best. What you're looking for is a good surface area ground that has plenty of conductivity such as copper water pipes, metal window frames, or iron pipes.

You would not want to rely on your AC outlet for a good ground. For these radio computer systems to work best, the copper foil needs to go to something that's going to make a beeline down to wet soil. Many times you can use an aluminum rain down-spout as a great way to get down to earth ground.

I run the ground foil to both the external radio box, as well as to a metal connection on the back of the computer. I will sometimes unscrew a sheet metal screw, put a washer on it, and poke it through the ground foil, and then reattach it to the computer. On the radio box, there generally is a connection point where you will need to fold your ground foil over in order to get everything squeezed onto that chassis ground port.

Once you have achieved a good ground for both the computer and the radio box, your next step is to choose good coaxial cable. If you plan to monitor just the low bands below 30 MHz with your computer radio setup, 50 feet of RG58AU coax cable is OK, although RG8X cable is preferred. But below 30 MHz, you don't need to use garden hose-sized RG8 cable. Choose about 50 feet of cable because you don't want your antenna closer than 50 feet to any computer. And this includes your neighbor's computer, too!

If you plan to scan the VHF and UHF bands, then choose top quality RG8U coax cable, such as low-loss land-mobile radio (LMR) cable or Belden 9913. These cables can terminate with a regular PL-259. The better the cable, the better the outside braid and foil wrap. This minimizes the intrusion of noise from the computer that is sitting within a foot of where the cable terminates to your radio box.

If you're planning on running your system on UHF or listening up at 860 MHz, don't even consider running RG58 or RG8X cable. This pencil-sized cable is
simply inadequate for VHF and UHF reception. By the time a UHF signal makes it down 50 feet of the small cable, it's just about had it. Go with the big cable, and struggle like we all do to get it routed so it ultimately goes to an antenna system way up, and in the clear.

You can buy adapters that will convert the PL-259 down to a BNC connector for the ICOM PCR1000 black box. On the Kachina, you're going into a regular SO-239 receptacle, so no special plug is needed; but check to make sure you've got the right adapters to fit your particular black box, whether it's internal or external.

Route the antenna coax cable as far away from the back of your computer as possible. Up at the other end of the coax, terminate to a suitable connector — probably a PL-259 — for the attachment to your antenna system. If you're just going to be scanning the VHF and UHF bands, go with a triple-band antenna from some of the ham antenna manufacturers like Comet, Valor, Diamond, Cushcraft, Larsen, HyGain, and the like. Although the ham antenna might be resonant on 146 MHz, 440 MHz, and 1270 MHz, it will generally work well from 100 MHz through 1500 MHz. If you plan to scan from 30 MHz on up, choose a ham antenna that may include the 6-meter, 50 to 54-MHz band, which gets you down to the VHF low-band range.

Other Antenna Ideas

There are also some terrific scanner antennas available which are multi-resonant on many different popular scanner frequencies on VHF and UHF. Check out our advertisers throughout Pop'Comm for ideas.

The best part of these resonant antenna systems is their isolation capabilities to keep the coax cable "cold." In other words, the braid is not part of the active antenna, and generally won't pick up the noise from the computer down below.

On high frequency, a dipole is a terrific way to pull in long-range skywave signals, but the dipole must be run in an area where it is clear of your computer and any other nearby computers. Keep in mind that the average home computer will radiate noise approximately 25 feet away down on high frequencies. Laptops are a little better, but still you need to keep your distance from the antenna to that turned-on laptop. The further that you can get your high-frequency or VHF/UHF antenna away from any computer, the better!

I recently tested dipoles from Alpha Delta Communications, and they were terrific on shortwave frequencies. In fact, the Alpha Delta DX-Ultra dipole worked very well with our ICOM from the AM broadcast band through 30 MHz. It also worked on VHF and UHF, but not as well as our Comet and Diamond white fiberglass, triple-band collinear antennas.

Alpha Delta also manufactures low-band dipoles with high impedance traps to peak performance on specific shortwave bands. They also have an extremely compact dipole to help pull in shortwave signals without being so long that it begins to pull in noise from neighbor's computers. Call Alpha Delta at 606-598-2029 for their communications catalog of antennas specifically designed for the new generation receivers that may be tied into computers.

When comparing an external dipole antenna to the supplied ICOM whip, it was like night and day. On a scale of 1 to 10, I would rate worldwide reception capabilities with a little tiny telescopic whip as a 1. Up on VHF and UHF frequencies, the performance is marginally better, but we saw a lot of noise pick-up from the supplied cable to the whip.

When we switched over from the supplied little ICOM whip to an outside Alpha Delta shortwave receiving antenna, performance was incredible. Our computer, aged and slow as it was, popped to life, and I was fascinated with all of the things it could do with any mode on the high-frequency band.

I then switched the ICOM 1000 up to VHF and UHF, plus I switched from the dipole, over to some triple-band Comet and Diamond roof-mounted whips. Immediately our VHF and UHF reception boomed in. There was no sign of intermodulation, and the signal quality on distant repeaters was just as clear as a dedicated base station ham transceiver. And you really could see and hear the difference when you removed the ground foil from the tail of the radio box and computer. Grounding works!

So if you're considering an ICOM, WiNRAdio, or Kachina computer radio system, plan your antenna and grounding method carefully. Just think of your computer as a little RF noise generating source that radiates out to about 25 feet, use a more distant antenna system with top-quality coaxial cable, and you'll get outstanding reception!
Once in a while a gem slips by, and you just don’t notice it right away, and no one thinks you’re interested. Those of us with busy schedules probably know this feeling all too well. That’s the feeling I have about the RadioShack PRO-64 and its base cousin, the PRO-2041.

RadioShack introduced these scanners without much fanfare. When they were first released, there was some enthusiasm based on the fact that the manual mentioned a computer interface, but there were no details. Even though my local manager spent over an hour on the phone, no details could be found regarding the computer interface.

Slowly, third parties added support for the radio. The computer interface allowed upload only. You could transfer data from the computer to the radio, but not the other way around. Still, it does make programming a much less daunting task.

But, in the meantime, what a radio! As I’ve started using the 64 in my car, and to some extent the 2041 in the house, they really perform quite well for themselves. It’s a 400-channel, triple-conversion design that really stands up. Yes, it would be nice to have CTCSS or DCS as an option, but they’re not available on many other radios either. However, as a handheld scanner in particular, the 64 performs quite well in a variety of circumstances.

And the priority function is like none I’ve ever seen. Instead of a channel in each bank designated a priority channel, there is a separate bank of 10 channels for priority, which means that they are completely independent of the regular scan contents as you turn banks on and off. I’ve loaded the fire department channels into priority and can let them run all the time, regardless of which public safety banks I have turned on. It really is a nice feature.

One slight disadvantage to this system is that the radio only checks one of the priority channels every 1.5 to 2 seconds, which means that it can take 15 to 20 seconds for the priority bank to cycle through if it’s full, and you can miss a few things in that time span. However, it’s not a serious limitation if you keep that in mind and program channels accordingly.

Making The Connection

To make the computer-to-radio connection you’ll need two things: an unused serial port and a cable. Radio Manager for Windows, available as shareware at <http://www.interplaza.corn/bensware>, includes plans in the help screen for building a cable from parts easily available at RadioShack. It’s not difficult, but it does take a few minutes to wire together. Other manufacturers also provide ready-made cables if you don’t care to make your own.

Currently, there are several good programs available that support the download function on the 64 and 2041. (The radios are functionally identical, so if software supports one, it will support the other as well.) Radio Manager and John Montalbano’s Programmit software are the cheapest, available as shareware from the Internet. John’s is available from <http://www.qsl.net/ka2pyj>.

RadioShack sells an interface kit for the PRO-64/2041 for $129. This item is still available from two sources. One is the RadioShack special order service, RSU. The other is Computer Aided Technologies (phone: 318-687-4444).

The RadioShack interface is really ScanCat Gold for Windows with an appropriate cable already built. It’s a nice way to get the software and hardware all at once. The version of ScanCat that ships in the RadioShack package is a complete version of ScanCat that will also control a number of other radios, including Optoscan units for RadioShack scanners, many ICOM radios, most AOR products, some Yaesu products, and a few others.

For ease of use, ScanCat does fairly well for the PRO-64/2041. The fact of the matter is that with these radios, since they only support upload of the frequencies from the computer to the radio, you’ll be using very little of ScanCat’s capabilities. On the other hand, because it’s the full version of ScanCat, it comes with a lot of utility functions for importing data.
What Are These Groups Used For?

- 9232 Mode 1
- 9264 Mode 2
- 9296 Mode 3
- 9328 Mode 4
- 9360 Mode 5
- 9392 Mode 6
- 9424 Mode 7
- 9456 Mode 8
- 9488 Mode 9
- 9520 Mode 10
- 9552 Mode 11
- 9584 Mode 12
- 9616 Mode 13
- 9648 Mode 14
- 9680 Mode 15
- 9712 Mode 16
- 9744
- 9776
- 9872
- 9904
- 12336 Folsom PD Main Dispatch
- 12368 Folsom PD Records
- 12400 Folsom PD Tac 1 Car to car
- 12432 Folsom PD Tac 2 Car to car
- 12464 Use unknown
- 12496 Folsom Fire
- 12528 Folsom Fire Tac 1
- 17456 Park Rangers
- 17488 Park Rangers Main
- 17552 Park Rangers Tac 2
- 17583 Park Rangers Tac 3
- Somewhere out there is Citrus Heights PD, DOJ and Galt PD. If you can add new insight please feel free to contact Gary at <sheperest@aol.com>.

Table I

<table>
<thead>
<tr>
<th>Channel</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9712</td>
<td>Mode 16 Records</td>
</tr>
<tr>
<td>9744</td>
<td>?</td>
</tr>
<tr>
<td>9776</td>
<td>?</td>
</tr>
<tr>
<td>9872</td>
<td>?</td>
</tr>
<tr>
<td>9904</td>
<td>?</td>
</tr>
<tr>
<td>12336</td>
<td>Folsom PD Main Dispatch</td>
</tr>
<tr>
<td>12368</td>
<td>Folsom PD Records</td>
</tr>
<tr>
<td>12400</td>
<td>Folsom PD Tac 1 Car to car</td>
</tr>
<tr>
<td>12432</td>
<td>Folsom PD Tac 2 Car to car</td>
</tr>
<tr>
<td>12464</td>
<td>Use unknown</td>
</tr>
<tr>
<td>12496</td>
<td>Folsom Fire</td>
</tr>
<tr>
<td>12528</td>
<td>Folsom Fire Tac 1</td>
</tr>
<tr>
<td>17456</td>
<td>Park Rangers</td>
</tr>
<tr>
<td>17488</td>
<td>Park Rangers Main</td>
</tr>
<tr>
<td>17552</td>
<td>Park Rangers Tac 2</td>
</tr>
<tr>
<td>17583</td>
<td>Park Rangers Tac 3</td>
</tr>
</tbody>
</table>

Letters

John Clark from Arkansas writes in with these thoughts after reading our review of the PCR-1000. He says, "I have an ICOM PCR-1000 coming in the mail. To run it, I've ordered a new computer — 300-MHz Pentium II MMX, 128 Mbytes of RAM, 24x CD ROM, 2x CD rewriter, two 5.1-Gb hard drives, and a bunch of other goodies just to keep up with the radio. Reading your articles is getting expensive."

Sounds like a nice system, John. I'm sure you'll enjoy the PCR-1000. I can't feel too bad for you regarding reading the articles. My wife says that writing them is fairly costly, too.

From Gary Webbenhurst comes this information on Sacramento County's (California) trunked system (see Tables 1 and 2). Can anyone help Gary fill in some of the missing IDs or agencies?

The city and county fire departments are all on the new 800-MHz system. Each has 16 talkgroups (channels). All handheld and mobile radios are therefore 16-channel. The county fire departments use A1-A16 in Mode A and Sacramento city fire uses B1-B16 in Mode B.

Your Input Needed

We're always looking for info on the trunked system near you. If you've got insight, questions, comments or wisdom, please feel free to drop me a line at 9051 Watson Road #309, St. Louis, MO 63126, or E-mail at <armadillo1@aol.com>.

The PRO-64/2041 Cable

The cable required to connect your PRO-64 or 2041 to the computer is relatively simple to build. In fact, it can be done without soldering anything if you are so inclined, and don't mind sacrificing a couple of other cables in the process.

What's needed is a stereo mini plug at one end (that goes into the radio's earphone jack) and a serial connector at the other end for the computer. Most folks have a DB-9 connector here, so that's the one we'll use. You can't purchase the exact cable you need pre-configured, but you can buy cables with those connections at each end. Simply cut them in half and make the appropriate cross connections. Be sure not to cross the wires. You'll need an ohm meter or continuity tester of some sort to see which wire goes to what connection at the other end. Of course a cleaner job can be done with a little solder if you aren't afraid of that process.

The Connections

- DB-9 Mini Plug
  - Pin 2 Tip
  - Pin 3 Ring
  - Pin 5 Sleeve

In addition, the actual spec calls for a 1000-ohm resistor between pins 2 and 3, but I have not found this necessary for operation. Several manufacturers, including RadioShack, offer a complete cable already built if you prefer not to roll your own.

![The PRO-2041 base unit is functionally identical to the handheld. Both receivers are triple conversion design and are relatively free of unwanted signals. The 2041 front panel is almost identical in size to the older 2006, although the cabinet is not quite as deep.](image)
Sacramento County (California) Trunked System

Table 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2608</td>
<td>A1</td>
<td>Fire Dispatching for Sacramento County</td>
</tr>
<tr>
<td>2640</td>
<td>A2</td>
<td>Responding unit checkback and more info</td>
</tr>
<tr>
<td>2672</td>
<td>A3</td>
<td>Additional dispatch (rarely used)</td>
</tr>
<tr>
<td>2704</td>
<td>A4</td>
<td>Additional dispatch (rarely used)</td>
</tr>
<tr>
<td>2736</td>
<td>A5</td>
<td>Additional dispatch (rarely used)</td>
</tr>
<tr>
<td>2768</td>
<td>A6</td>
<td>Tac 6 (first tactical channel assigned)</td>
</tr>
<tr>
<td>2800</td>
<td>A7</td>
<td>Tac 7 (second tactical channel assigned)</td>
</tr>
<tr>
<td>2832</td>
<td>A8</td>
<td>Tac 8</td>
</tr>
<tr>
<td>2864</td>
<td>A9</td>
<td>Tac 9</td>
</tr>
<tr>
<td>2896</td>
<td>A10</td>
<td>Tac 10</td>
</tr>
<tr>
<td>2928</td>
<td>A11</td>
<td>Tac 11</td>
</tr>
<tr>
<td>2960</td>
<td>A12</td>
<td>Tac 12</td>
</tr>
<tr>
<td>2992</td>
<td>A13</td>
<td>County Fire Administration</td>
</tr>
<tr>
<td>3024</td>
<td>A14</td>
<td>County Fire Prevention</td>
</tr>
<tr>
<td>3056</td>
<td>A15</td>
<td>County Arson Investigators (scrambled?)</td>
</tr>
<tr>
<td>3088</td>
<td>A16</td>
<td>General Alarm All Mode A radios A1-A16</td>
</tr>
</tbody>
</table>

Note: All “A” Group radios will receive alerts

<table>
<thead>
<tr>
<th>Code</th>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3120</td>
<td>B1</td>
<td>Fire Dispatching for the City of Sacramento</td>
</tr>
<tr>
<td>3152</td>
<td>B2</td>
<td>Units responding, check back &amp; more info</td>
</tr>
<tr>
<td>3184</td>
<td>B3</td>
<td>Additional dispatch channel rarely used at this point</td>
</tr>
<tr>
<td>3216</td>
<td>B4</td>
<td>Additional Dispatch</td>
</tr>
<tr>
<td>3248</td>
<td>B5</td>
<td>Additional Dispatch</td>
</tr>
<tr>
<td>3280</td>
<td>B6</td>
<td>City Fire Tac 6 (first channel assigned)</td>
</tr>
<tr>
<td>3312</td>
<td>B7</td>
<td>City Fire Tac 7 (second tactical assigned)</td>
</tr>
<tr>
<td>3344</td>
<td>B8</td>
<td>City Fire Tac 8</td>
</tr>
<tr>
<td>3376</td>
<td>B9</td>
<td>City Fire Tac 9</td>
</tr>
<tr>
<td>3408</td>
<td>B10</td>
<td>City Fire Tac 10</td>
</tr>
<tr>
<td>3440</td>
<td>B11</td>
<td>Administrative matters</td>
</tr>
<tr>
<td>3472</td>
<td>B12</td>
<td>City Fire Reserves &amp; Volunteers</td>
</tr>
<tr>
<td>3504</td>
<td>B13</td>
<td></td>
</tr>
<tr>
<td>3536</td>
<td>B14</td>
<td>City Fire Prevention</td>
</tr>
<tr>
<td>3568</td>
<td>B15</td>
<td>City Arson Investigators</td>
</tr>
<tr>
<td>3600</td>
<td>B16</td>
<td>All call B1-B16 Mode “B” Announce Group</td>
</tr>
</tbody>
</table>

Hospital/Paramedic System

<table>
<thead>
<tr>
<th>Code</th>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5168</td>
<td></td>
<td>Hospital Command Net</td>
</tr>
<tr>
<td>5200</td>
<td></td>
<td>Hospital Tactical Net?</td>
</tr>
<tr>
<td>5232</td>
<td></td>
<td>Paramedics to Kaiser North</td>
</tr>
<tr>
<td>5264</td>
<td></td>
<td>Paramedics to Kaiser Roseville</td>
</tr>
<tr>
<td>5296</td>
<td></td>
<td>Paramedics to Kaiser South</td>
</tr>
<tr>
<td>5328</td>
<td></td>
<td>Paramedics to American River Hosp</td>
</tr>
<tr>
<td>5360</td>
<td></td>
<td>Paramedics to Mercy General</td>
</tr>
<tr>
<td>5392</td>
<td></td>
<td>Paramedics to Mercy Folsom</td>
</tr>
<tr>
<td>5424</td>
<td></td>
<td>Paramedics to Methodist</td>
</tr>
<tr>
<td>5456</td>
<td></td>
<td>Paramedics to Mercy San Juan</td>
</tr>
<tr>
<td>5488</td>
<td></td>
<td>Paramedics to Roseville Community</td>
</tr>
<tr>
<td>5520</td>
<td></td>
<td>Paramedics to Sutter General</td>
</tr>
<tr>
<td>5552</td>
<td></td>
<td>Paramedics to Sutter Memorial</td>
</tr>
<tr>
<td>5584</td>
<td></td>
<td>Paramedics to hospital UCDMC ALS</td>
</tr>
</tbody>
</table>

Note: Some talkgroups are simplex and not area repeater pairs. Your Bearcat Trunktracker™ will still follow them according to their talk group IDs, but you probably won’t hear them unless you are close to the officers using simplex talkgroups.

What are these other talkgroups used for? Keep in mind that some of these talkgroups are to be used for training, or by special operations that rarely use the radio. Undoubtedly many talk group assignments are for “future expansion.” To further complicate everything, some radios can be programmed with unique combinations. Any ideas or new info?
How I Got Started

Congratulations To Boris Chuistov Of The Ukraine!

Popular Communications invites you to submit, in about 150 words, how you got started in the communications hobby. Entries should be typewritten, or otherwise easily readable. If possible, your photo (no Polaroids, please) should be included.

Each month, we'll select one entry and publish it here. Submit your entry only once; we'll keep it on file. All submissions become the property of Popular Communications, and none will be acknowledged or returned. Entries will be selected taking into consideration the story they relate, and if it is especially interesting, unusual, or even humorous. We reserve the right to edit all submitted material for length and grammar, and to improve style.

The person whose entry is selected will receive a one-year gift subscription (or one-year subscription extension) to Popular Communications. Address all entries to: "How I Got Started," Popular Communications, 25 Newbridge Road, Hicksville, NY 11801 or E-mail your entry to <popularcom@aol.com>, letting us know if you're sending photos.

Our August Winner

Pop'Comm reader Boris Chuistov, UU5JK, of Yalta, Crimea, Ukraine, says he discovered Pop'Comm when an American friend gave him a copy of our magazine. He writes, "I heard 'miracles' at 14 years old when my grandmother — my father was lost in Stalin's camp — presented me with a LW/MW tube-type receiver. We lived in South Russia, and I could listen to Turkey and the Middle East. The country was destroyed by Germans after World War II, and then surrounded by the Iron Curtain. So it was really a 'miracle' for me to listen to the voices from abroad.

It became my grand hobby for my entire life! My second receiver was an American BC 312 at our Radio Club station. It was a wonderful HF receiver. Now I listen to the world with a Sony ICF-2001, and an ICOM 726 transceiver. I'm chief of the Yalta Radio Club, and have amateur license UU5JK. I'd like to contact any American amateur; all letters will be answered. My address is Boris Chuistov, P.O. Box 20, Yalta, Crimea, 334200, Ukraine."
In case the temperature hasn’t been enough of a clue for you, we’re right in the thick of a hot prime scanning season. The summer is probably the best time for scanning action. There’s nothing like listening to urban police departments on a hot summer night as officers hop from one call to another. Not only do routine police channels become active, but those frequencies associated with summertime activities also come to life. For instance, if you live near an amusement or theme park, you can hear all the action as park patrons crowd through the admission gates during nice summer days. Likewise, park rangers in city, county, state, and federal park areas become busy controlling crowds and troublemakers on hot summer days. So, use the search function on your scanner and search out those channels that may only be active during the “outside” summer and early fall months. And, if you like listening to business or special emergency frequencies, here’s a tip: school buses don’t use these channels during the summer months, so you may find new users on these frequencies.

Preparing For The Worst

Terrorist actions occur all too often these days. Are you prepared for scanning activity should such an incident strike your community or city? Any unfortunate major emergency situation will offer an intense listening experience for many scanner hobbyists in the surrounding region. In fact, depending on the severity of the incident, scanner listeners may be able to tune in to communications from a variety of services, ranging from police and fire rescue operations, to temporary radio systems brought in by federal agencies such as the Federal Emergency Management Agency and the FBI.

For many, there could be new frequencies to find every day. In a blast, if you don’t find salvage operations on business or General Mobile Radio Service frequencies, there certainly are news media operations to scan in the 161-, 450-, and 455-MHz bands.

What any incident should teach each monitor, though, is that the hobby should not be taken for granted. I’m sure most scanner hobbyists who have monitored a major emergency in their community will tell you that their scanners provided them with a lifeline during the crisis. Radios carry information instantaneously — especially desirable when friends, family, and loved ones might be involved.

The question, however, is how many scanner enthusiasts are prepared to monitor what could become the news story of the year in their very own community. Look around you. Do aircraft fly over your community? Is there a large chemical plant nearby? Are there naturally occurring hazards that can strike your community? Any natural hazard, such as a tornado, hurricane, or volcano, can become a disaster at any time.

Perhaps the real question is just when disaster will strike. How many monitors in the Oklahoma City area ever would have calculated that the bombing of a public building would be a hazard in their community? Probably none. But it all points in one direction: hobbyists need to be prepared to listen to the “big event” should it occur near their homes.

How do you prepare to monitor an event that may last for days or weeks? How do you anticipate what frequencies may be used during a major emergency? With the availability these days of scanners that can be programmed with hundreds, or even thousands, of frequencies and even with 800-MHz trunked systems, it shouldn’t be too hard to load up one of these receivers with frequencies that are not only used on a daily basis, but also with others that may become active only when necessary.

Sure, you may not want to monitor public works frequencies on a daily basis, but when all city units get pressed into ser-
vice for a major emergency, you'll want to monitor just about everything. The trick is to program every frequency you think of that might become active so you don't miss the action. Make it easy to access these channels, too, if you aren't monitoring them on a daily basis. Lock out the channels or banks containing these frequencies. And if you don't have a scanner capable of handling hundreds of channels, at least make a list, either on a computer or in a notebook, of all the frequencies you'll need.

And don't forget frequencies in other services that might become active. For instance, you can bet that during a major emergency, frequencies such as 151.625, an itinerant business channel, or 156.800, a VHF marine Channel 16 for calling an emergency, might become active with emergency-related communications. If contractors bring in heavy machinery, special industrial frequencies might be pressed into service. If city buses are used to transport emergency personnel, you'll also find activity on the bus frequencies. The trick with crisis communications monitoring is that you can never rule out any frequency coming into use.

Do It Yourself

Ken, from Ken's Electronics in Michigan, wrote saying he thought we might be interested in mentioning his Orange Book of Scanner Repair for hobbyists who want to learn how to fix their own scanners. The guide has repair notes on several hundred models of scanners that his business has fixed for local customers — he quickly notes that he does not do mail-order repairs anymore, as he's quite busy.

Readers can get more information about the guide on the World Wide Web at <http://www.kenselectronics.com/books/orangebook.html>. The Orange Book sells for $25 plus $3 postage and handling, which, as many of you know, is considerably less than most places charge for an estimate, let alone repairs. Ken's business also accepts Visa, Mastercard, and Discover cards for immediate order processing, or customers can send a money order to: Ken's Electronics, 2825 Lake St., Kalamazoo, Michigan 49001. Phone: 616-345-4609; e-mail: <ken@kenselectronics.com>.

On The Rails

Phil Starks, KBOFFW, of St. Charles, Missouri, writes in to say he just finished reading this column in the June issue of Pop' Comm and was surprised to see how long it was that month. He sent E-mail to pass along some railroad frequencies for the Burlington Northern Santa Fe Railroad, of which he is a 43-year veteran. Here's his list: 161.100, Lindenwood Yard, St. Louis, Missouri; 161.160, Springfield, Missouri, Division; 161.410, Galesburg Division; 161.130, radiotelephone; and 160.665, radiotelephone.

Phil says he also works part time for Wal-Mart and would like to know the fre-
cellular phones or satellite uplinks for in-
truck probably aren’t using anything other than
soon find them. The truckers, however,
Search out the frequencies and you’ll
VHF or UHF business band frequencies.
he’s a ham with a General class license.
lowed by “The Ham Column” because
he’d like to monitor news media com-
munications between TV studios and re-
porters. But he’s not quite sure where to
find these communications.
Actually, they’re quite easy to find, if
they’re using the frequencies designated
for them. Remote pickup broadcast fre-
cuencies typically used by TV and radio
stations are in the 161.640 to 161.760,
450 to 451 and 455 to 456-MHz bands.
In addition, 166.250 and 170.150 are used
similarly outside a 150-mile radius of
New York City, where the two frequen-
cies are used for fire departments.
You’ll hear cuing, paging, helicopters,
reporters, technical crews, and more on
these frequencies. However, in some
areas, the news media actually may use
business or trunked systems. I’ve found
some use of business repeaters in the 461
to 465-MHz band, as well as several sta-
tions that use 800-MHz trunked business
shared systems. In addition, almost all
news gathering operations use cellular
phones these days, so it’s likely you’ll be
missing out on some action that’s going
on over cellular channels. Tune in and see
where you can find your news while it’s
still fresh.

News Chatter

Bill Paysen of Las Vegas, Nevada, says
he’d like to monitor news media commu-
nications between TV studios and re-
porters. But he’s not quite sure where to
find these communications.
Actually, they’re quite easy to find, if

Down Under Phones

Kevin from Australia sent along an E-
mail with his comments on wireless
phones. He says:
I’ve been reading with interest the prob-
lems you have with the banning of the mobile
phone monitoring, and wonder why the U.S.
government doesn’t do what they have done
here, and force all mobile phones to digital
systems. Then there won’t be any problems
with us grubby little “electronic stalkers.”
Also, this way the cost of digital phones will
come down, as they have here. All mobiles
will be digital by 2000 and phasing out the old
analog system will be complete.

Write In

What are your favorite frequencies? Do
you have any scanner-related questions?
Do you have any listening tips worth
passing along to your fellow readers?
How about sending in a photo of your list-
ing post or antenna farm? Write to:
Chuck Gysi, N2DUP, “Scanning the
Globe.” Popular Communications, Box
11, Iowa City, Iowa 52244-0011, fax to
516-681-2926, or E-mail to <SCAN911
@aol.com>. Make sure you indicate in
your E-mail that you are writing regard-
ing this column.
LET'S PEEL DOWN A FEW BACK ALLEYS AND FIND OUT WHAT'S HAPPENING IN THE DARK WORLD OF CLANDESTINE RADIO THESE DAYS!

Radio Patria Libre, the anti-government station in the mountains of Colombia continues its somewhat sporadic activity, generally operating in the area around 6250 but, unfortunately, signing off around 2300, which makes reception more difficult as our daylight hours lengthen.

The Supreme Council for the Islamic Revolution in Iraq (SCIRC) operates the Voice of Rebellious Iraq. The schedule (more or less) is 0330 to 0530 on 6195, 7115, 7295, 7295, and 9610. SCIRC is a Shi'i Moslem group supported by the Iranian government, which is where the broadcasts probably originate. The group's address is P.O. Box 11365/738, Tehran, Iran. As with all reports to clandestine stations, it's a good idea to use the organization's name in the address rather than that of the station.

There are currently three clandestines airing words at the Eritrean government, all of them operating on 9230. The Voice of Democratic Eritrea—Voice of the Eritrean Liberation Front Revolutionary Council is on the air in Arabic and the Tigrigna language from 1500 to 1530. The address is ELFRC, P.O. Box 2000434, Bonn, Germany. The Voice of Free Eritrea is the station of the Eritrean National Alliance, which includes several groups hostile to the Eritrean government. It's on from 1530 to 1600 in Arabic and Tigrigna. The third station is the Voice of Truth, which speaks for the Eritrean Islamic Jihad Movement. It's on (in the same two languages) from 1600 to 1630. The transmitter carrying all these "stations" is believed to be located in the Sudan.

The Voice of Oromo Liberation is the official voice of the Oromo Liberation Front which opposes the Ethiopian government. It operates on 9980 on Mondays, Wednesdays, and Saturdays from 1700 to 1800, and is believed to broadcast via transmitters in the Ukraine.

Another part of Ethiopia's clandestine scene is the Voice of the Revolution of Tigray. This one broadcasts on 5500 and 6315 from 0400 to 0500 Monday to Friday (Sundays until 0800). It's also on those frequencies Monday through Friday from 0930 to 1030 and from 1500 to 1600 Saturdays and Sundays.

Sudan, in turn, is also the target for clandestine broadcasting. The Voice of Sudan operates on 8000 (sometimes a hair higher or lower) until sign off at 1800. Also used is 9025. Jill Dybka in Tennessee has heard this one in Arabic on 8000 (and parallel 9025) at 0414 with a presumed political speech. Another supposed activity, frequency (12008) was not heard. The 0400 to 0600 part of the schedule is being quite widely heard.

Multiple clandestine signals also target the government of Nigeria, although the status of one of them seems a bit shaky at the moment. Radio New Nigeria was operating on weekends only (Saturdays at 0100 to 0129 on 5905, 0600 to 0629 on 11670 Sundays at 1500 to 1529 on 6175), but may currently be off the air.

The Voice of Free Nigeria, believed to be transmitted from Germany, is active from 1145 to 2000 Saturdays. A third station, Radio Kuridat, operates on 6205 from 1900 until just past 2000. Still another one is Radio Nadeco, which airs on U.S. commercial broadcaster WWCR at 0600 on 5070.

The Democratic Voice of Burma, aired via transmitters in Germany, operates from 1245 to 1315 on 15330, and via Norway from 1430 to 1500 on 11850. Much of the material aired on the Democratic Voice of Burma is gathered by a group with members in the All Burma Students Democratic Front. The reporters work out of a guerrilla camp in the jungle on the Thailand side of the Salween River. In addition to news reports, they also put on dramas and educational programming. The Democratic Voice of Burma is supported by the government of Norway. They issue a very attractive QSL card. This one in Arabic on 8000 and 9025. Jill Dybka in Tennessee has heard this one in Arabic on 8000 (and parallel 9025) at 0414 with a presumed political speech. Another supposed activity, frequency (12008) was not heard. The 0400 to 0600 part of the schedule is being quite widely heard.

The Voice of Palestine is currently being aired into the Lebanon and can be reached at P.O. Box 6720, St. Olayas Plass. N-0130 Oslo, Norway.

The Voice of Tibet is now broadcast at 1225 to 1255 on 7400. It is also supported by, and aired from, Norway. The address for this one is Wellhavensgat 1, N-0166, Oslo. The Voice of Palestine is aired over Iranian government transmitters and is currently scheduled at 1930 to 2030 on 7190.

The Democratic Voice of Iran is on the air from 1830 to 1900 UTC daily and claims not to be connected with any particular political group or religion. The frequencies used include 5835 and 6210. There are two known addresses for this one: Box 555, 11479 Stockholm, Sweden and BCM Box 5842, London, WC1N 3XX, England.

Jill Dybka in Tennessee reports logging VORGAN (Voice of the Resistance of the Black Cockrel) to 0103 sign off on 6220 (check 6225, too.) This is the (now) semi-clandestine which has been the radio voice of the UNITA opposition for many years and, for the last couple of years, has been moving toward the status of becoming a legitimate, licensed broadcaster. It's been a long, tenuous process, however, and there's been increased pressure from the Angolan and U.S. government, as well as the UN, to "get with the program." It's likely that VORGAN, as we know it, will close down sooner or later, and will probably become a local FM station. The bottom line: if you haven't logged this one yet, you'd better have a go at it while it still exists.

Remember, your information on clandestine broadcasting subjects is always wanted and appreciated. This includes loggings, addresses, QSL information, station schedules, news clippings, information about the groups which sponsor such stations and such. Some of you prefer not to be mentioned, but you know who you are. Thanks to everyone for the continued support.
The Readers Speak Out About Class-A Family Radio Service

The proposal in the June issue to create a Class-A Family Radio Service, which would include seven higher power channels, seven low power channels, and one General Mobile Radio Service repeater channel, has drawn more response than anything else in my tenure as "CB Scene" editor. I am impressed that most of the response was quite civil, with a couple of notable exceptions, even from the people who disagreed with the proposal.

Most, including Irene G. Bailey, like the idea. She wrote: "Saw your article in the June issue of Popular Communications about a Class -A Family Radio Service. I think it is a great idea. I vote yes."

Some offered interesting suggestions, including Bob Earl, KD6UIH, who said:

I am all for the proposed Class-A Family Radio Service. I have tried to get my son to study for a ham license, but he just is not interested. He sees me involved in the hobby in a big way and he doesn't want to go there. Neither one of us like the 11-meter CB band as it is today. We live 56 miles apart with a mountain range between us. However I will be moving out to that area in the not too distant future (retiring) and it would be nice to have a NICE clean means of communication between us. Until I move, it could be used to 'prevent the riffraff from raising hell'. Citizen's Band Radio Service, but disagree as it is today. We live 65 miles apart with a mountain range between us. However I will be moving out to that area in the not too distant future (retiring) and it would be nice to have a NICE clean means of communication between us. Until I move, it could be used to 'prevent the riffraff from raising hell'.

I think 5 watts with the use of an external antenna would be fine. I think you should be able to use any size antenna as long as you do not exceed the 5 watts out at the transmitter. Maybe there could be some kind of sensing circuit in the transceiver so if an amp is put in line, the unit would shut down and not operate — something like the SWR protection in the brick amps I use on VHF/UFHF. I don't know if this is possible, but if it is, then it could prevent the use of amps.

The mobile radios should be under $200 (street price) and base radios $250/$275 to be affordable. They should all have CTcss encode/decode so that they can be monitored without having to listen to everything on the channel. This way you would only have to listen to your own family members or neighborhood group as you choose.

Here's another letter:

Your idea about establishing a Class-A Family Radio Service in conjunction with the FRS sounds good to me. I think there might be a slight technical problem, however. When I first read about the FRS, when it was first proposed, it was mentioned that FRS radios were to be limited to a deviation of ±2.5 kHz. This would make FRS radios not very compatible with current GMRS equipment, as GMRS gear uses the 'standard' ±5-kHz deviation. Do FRS radios operate with ±2.5- or with ±5-kHz deviation?

You were exactly right in your article when you said 'In a very real sense, CB was never intended to be a hobby.' One of the biggest problems with CB is the 'ham-wannabe's' that seem to be so prevalent. It's extremely easy to get an amateur radio license; with it one can 'work skip' and 'run power' legally. Bill, N9QLS

Bill, in answer to your question — yes, the FRS radios do indeed use the narrower deviation, but I haven't found any real problem talking between FRS and GMRS radios.

And reader Roy PB writes:

I agree with your concept of a Class-A Citizen's Band Radio Service, but disagree as to whether or not users or the FCC will be able to prevent the 'agitation from raising hell'. I began my radio hobby about 23 years ago as an eighth grader with an interest in monitoring the police bands. From there I moved on to CB (Class-D) and eventually into amateur radio. I've learned one thing: No matter what you do, there will always be a goof or two out there.

I'm sure you know that the identifying data burst is not a new concept. Many public safety agencies use them, and there is even an amateur repeater in the Chicago area (W9VGI - "FishFAR") that requires it in order to gain access to the system. The problem with the data burst is that it can be pirated. At some point someone who knows enough about radio, and wants to violate the law, will. This is the same kind of thing going on with cloned cellular phones.

Without even going to the trouble of changing an "id", one can simply program a radio to go to these frequencies — either a commercial radio, or one of the wideband ham radios. I think your idea for a Class-A CB Service is a winner. I don't think it needs to be complicated by registered IDs and transfer forms. Who would be responsible for the administration of these forms? The FCC? The PRSG? Thanks for taking the time to hear my opinion. I really enjoy your column, and although I have a ham license, am still an active CBer.

And from Scott H. comes this letter:

I think your ideas about extending FRS into a serious communications service (June Pop'Comm) are excellent.

The restructuring you propose would preserve the low-power simplex channels, as well as allow slightly higher power for base-to-mobile contacts. Adding in the GMRS traveler assistance pair was a stroke of genius, as was the use of a digital burst ID string to deter 'agitating'. CTcss would get rid of a lot of it, anyway, but having a unique identifier on each transmitter and registering it with the FCC would be a much stronger tool in catching and stopping troublemakers.

I'm glad to see that your proposal includes a reinstatement of licensing, as well as a way to positively track each radio. Now if we can only get the equipment manufacturers to get behind it and the FCC to administer and enforce it — we may at last see the benefits promised so many years ago by the old Class-A CB Service. Keep up the good work and 73!"

Going A Step Further

And at least one reader wanted to go even further:

I read with interest your article in the June issue of Pop'Comm. I was heavy into CB radio back in the '70s during the time the 55-mph speed limit was imposed due to the Arab oil crisis. I would go one more step with this fix: make the manufacturing and sales of 11-meter CB rigs illegal after the year 2000. I know there would be a lot of eyebrows raised (REACT included!), but maybe the current dilemma on 11 meters would slowly fade away. I know the FCC has done little concerning enforcement, and I would suggest that
people contact their Senators and Representatives and urge them to get the FCC into the enforcement mode. I am a past president of Douglas County (Nebraska) REACT (now called Heartland REACT).

About 11 years ago, totally frustrated with 11 meters, my wife and I earned our amateur radio licenses. Notice the reference to "earned." The No-Code license has really opened the door to those wanting to get into amateur radio.

I don't agree with doing away with the code requirement for high frequency operation. Sure we have our problems, but the amateur radio service is self policing, and there are few problems. I am also past president of the AKSAR-BEN (Omaha) Amateur Radio Club, currently a member of the Amateur Auxiliary (Official Observer) and the ARRL Section Manager for Nebraska. Something has to be done, and since the FCC created this mess, they should be the ones to fix it. 73,

Bill McCollum, KE6XQ, Nebraska ARRL Section Manager.

And Corwin Moore, head of the Personal Radio Steering Group, the national advocacy organization for personal licensees in the General Mobile Radio Service, wrote:

The primary deficiency with your proposal concerns how the personal spectrum might or could be PROTECTED. We have already seen in some areas that businesses and other commercial/governmental users have moved in and taken over many of the FRS channels. That usurpation was entirely expected! GMRS is protected from this usurpation by the licensing process, specifically by licensee eligibility and station operator eligibility. Until people address how control of the spectrum can be maintained — how users that should be elsewhere are kept off personal use spectrum (there is clearly not enough spectrum in GMRS for both personal and commercial use, as plentifully demonstrated from history!) — then any proposal for change is fundamentally incomplete. If we don't recognize and prepare to counter the problems that history has so adequately demonstrated, then history will merely repeat itself.

And so how is personal/family-use spectrum going to be protected? I would welcome dialogue on how to keep personal and family communications protected from being blown away by users who have their own spectrum, and who should be located elsewhere. In the absence of constructive recommendations (other than trash the spectrum, like happened with CB radio, and making it unusable for most non-frivolous communications), then any discussion of delicensing existing licensed services (like GMRS), or expanding unlicensed services (like FRS), simply fails to address reality.

The Opposition — And Vern's World

And some readers just hated the idea of a Class-A Family Radio Service.

I totally disagree with your ideas about increasing the power on the new Family Radio Service, and especially removable antennas. It will ruin a good thing quickly. If people want more power and more range, they can get their amateur radio licenses, but they would have to study and take a test to do that. How about just getting a GMRS license, that would do the trick.

Leave well enough alone.

Hector F. Nieves
Abilene, TX

Another reader wrote:

I read Jock's article the day I received my issue of Popular Communications. The next thing I did was look at the date of the magazine. I know it reads June 1998 BUT that must be a typo! It MUST be June 1988. The proposal for a low-powered personal service made available to the general public what a great idea from the '80s. To inform Jock, GMRS has just such a service. All one needs to do is fill out a license application and send in $70 and you are all set. No location information other than an address; no terrain information, just like the old CB; limited to 20-foot high antennas; 5 watts ERP and you are on seven itinerant GMRS channels — mobile or base with external antennas!... come on guys, have you been sleeping the past 10 years? Everything in Jock's article has been suggested by Corwin Moore of PRSG over 15 years ago! As for the manufacturers jumping in — they jumped out last year for this type of equipment! Where is Tom when we need him? (Funny you ask. I just called Tom, a few minutes ago. He was too busy to talk 'cause he was having too much fun using his new FRS radios to stay in touch at the beach! And, as I expected, he reports no interference to those GMRS repeaters! — Editor)

Vernon Reed, W9VCR

From still another reader:

I read the article in your May issue of Pop'Comm, proposing changes to FRS. I found this article rather disturbing. I oppose any changes to FRS as you propose.

FRS range is just fine for its intended purpose. FRS was NEVER intended as a hobby service. Your proposal will make it just that. FRS users do not want to talk to anyone other than the group we intend to communicate with. I don't need jokers out there breaking the channel to talk to me.
"I think your ideas about extending FRS into a serious communications service (June Pop'Comm) are excellent."

All in all, you have a very bad idea going. Leave the FRS users alone. You want FRS to become like 27 MHz. We went to FRS to get rid of the mess on CB. Do not turn our clean service into another mess like CB.

John L. Wilkerson Jr.
(Creator of newsgroups <alt.radio.family> and <us.misc.family.radio>)

Despite John's objections, I still think there is a need for a radio service that offers reliable short-range communications and the ability to summon roadside help at longer range, so I'll give the last word to Charlie, who writes:

This sounds like a super idea. I would be interested in a service like this. My wife and I used CB to communicate over short distances, but now the weirdos have taken over in our area. Especially like the ident decode idea. If the power/antenna combo was sufficient to get out five or six miles it would be great. How do we get this idea rolling?

Charlie, WN3J, SSB-33Y

There's good news, Charlie. Bob Leef, who bounced around ideas with me and is a tireless worker for REACT and the Red Cross, has already filed a Petition for Rulemaking with the FCC for a Driver's Radio Service. It includes all 14 FRS channels (but limits power to 1/2 watt on all but a GMRS repeater pair), automatic transmitter identification, and a small ($5 licensing fee). It allows both mobile rigs with external antennas and handheld radios. While it differs from my proposal in a number of small ways, I support it. Stay tuned here to see what happens next.

To all who responded to the June column, my heartfelt thanks. Keep those cards and letters coming!
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This listing is designed to help you hear more shortwave broadcasting stations. The list includes a variety of stations, including international broadcasters beaming programs to North America, others to other parts of the world, as well as local and regional shortwave stations. Many of the transmissions listed here are not in English. Your ability to receive these stations will depend on time of day, time of year, your geographic location, highly variable propagation conditions, and the receiving equipment used.

AA, FF, SS, GG, etc. are abbreviations for languages (Arabic, French, Spanish, German). Times given are in UTC, which is five hours ahead of EST, i.e. 0000 UTC equals 7 p.m. EST, 6 p.m. CST, 4 p.m. PST.

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<td>4890 NBC, Papua New Guinea</td>
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ScanCat Fully Supports ICOM PCR1000

Computer Aided Technologies announces complete support for the newest addition to their scanner lineup: the PCR1000. ScanCat-Gold for Windows is a state-of-the-art receiver-control software developed to control the new and revolutionary ICOM PCR1000 broadband receiver. ScanCat controls all the conventional operations of the ICOM PCR1000, (scanning, logging, spectrum analysis, etc.) plus with support of over 45 radios, all in the one program. The new features include bandscope (up to 500 kHz), direct frequency readout by mouse control of the bandscope display, DSP support (noise filter and noise reduction), and IF shift control.

There are a multitude of features ScanCat will add to your PCR1000 that aren’t offered with OEM software, including faster scanning speed, sequential multiple frequency range searches, scan entire disk files (without the 50-channel-per-bank limitation), and multiple “keyword” searches of disk files, and much more.

The ScanCat-Gold for Windows “SE” is available for $159.95, and ScanCat-Gold for Windows, $99.95. For additional information, contact Computer Aided Technologies at P.O. Box 18235, Shreveport, LA 71138 or call 888-722-6228 (or 318-687-2555 from 9 a.m. to 2 p.m. M-F). You can FAX them at 318-686-0449 or visit their Website at <http://www.scancat.com>. Don’t forget to tell Jim that Pop Comm sent you!

Fifth Edition Of Australasian Shortwave Guide

The new 28-page Australasian Shortwave Guide features comprehensive schedules for the current transmission period for broadcasts in English beam to Australia, New Zealand, Oceania, the Far East, Asia, and the Indian sub-continent, and in languages other than English for Australia, New Zealand, and Oceania. Nearly 600 entries are given, in alphabetical order with target areas, broadcast days and relay sites. The latest frequencies are also included.

The guide also features a time index: a convenient listing hour-by-hour and referenced to the main alphabetical data. And DXing Papua New Guinea, an in-depth study of broadcasting in the region, covering mediumwave, shortwave and VHF-FM with substantial background information on the languages, history, culture and geography of the area is included, along with current schedules.

There’s much more in the new Australasian Shortwave Guide which is available outside Australia for $7 (U.S.) or 10 IRCs. Checks other than those drawn on Australian banks are not accepted.

Made out to “Bob Padula” and sent to 40428 (or 318-687-2555 from 9 a.m. to 2 p.m. M-F).

BY HAROLD ORT AND R.L. SLATTERY

“Tired of your handheld scanner falling over?”

Try our unique, swing base, telescopic scanner antenna, CAT-WISKER lets you lay your handheld scanner on its back and keep the antenna vertical. 

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FEATURES AP.

COPYCAT -PRO $79.95, UPGRADES $24.95 Sill SSOCP ($7.50 Foreign)

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Cobra Introduces New Line Of Six-Band Radar Detectors

Cobra Electronics' new radar detectors provide drivers with all four speed monitoring systems in use today (X, K, Ka, and Laser), plus the "detector" monitoring band and the Safety Alert Traffic Warning System band.

John Pohl, Vice President of Marketing for Cobra Electronics reports, "Our new line of six-band detectors offers the most comprehensive alert system in the industry."

The line begins with the ESD-6000 which offers consumers many key features found in the more advanced models, including visual and audio alerts for all six bands and three-level dim switch.

The ESD-6100 and 6200 both have Cobra's LaserEye 360-degree laser detection for multi-directional protection from increasingly popular laser guns, a Memo-Set function that memorizes dim, muting and city/highway, and a new auto tune system. The 6200 model also offers Voice Alert identifications of all six bands as well as operating settings.

The top-of-the-line ESD-6500 has all the features found in the other six-band detectors, plus high visibility text LED displays for each alert. These detectors, available in April, will carry suggested retail prices from $99.95 to $199.95.

For additional information, contact Cobra Electronics, Inc. at 6500 West Cortland Street, Chicago, IL 60707, phone 773-889-8870.

MFJ Book Brings Fresh Approach To Morse Code Training

Author of the new book, Morse Code: Breaking the Barrier, Dave Finley, N1IRZ shows how, using a computer or a microprocessor-based pocket code trainer (MFJ-418), a ham and would-be ham can use a technique developed in 1936 by Ludwig Koch to build high-speed code proficiency quickly and efficiently. Finley says: "Besides its speed, Koch's method has another, more important advantage over 'traditional' code training methods. With Koch's method, you receive frequent, positive reinforcement — assurance that you really are making progress. That means there are no 'plateaus, you stay motivated and don't quit out of frustration."

Finley, who used Koch's technique himself to go from No-Code Technician to Extra class, became an avid CW operator. The book, published by MFJ Enterprises, Inc. also includes chapters on sending code with keys, bugs and keyers; on making your first CW QSOs; and on a variety of on-the-air activities where CW can make your hamming more fun. The book also includes a fast-paced chapter on the fascinating history of telegraphy, both landline and wireless. "When we use Morse Code on the air, we become part of a tradition that goes back more than 150 years. Knowing that history adds to the pleasure of operating," Finley says.

For more information on Morse Code: Breaking the Barrier, which is available for $14.95 plus shipping, contact MFJ Enterprises at MFJ Publishing Company, Starkville, MS 39759; phone: 800-647-1800; fax: 601-323-6551; e-mail: info@mfjenterprises.com; or you can check out local dealer and other ordering information on their Web site at http://www.mfjenterprises.com.
Solar Activity Is Heating Up

Mediumwave DXers were treated to a sign of things to come with a major solar flare that occurred in the spring. According to Norwegian DX Listeners Club data, the A index reached a peak of 317 during the three-hour measurement period between 0300-0600 UTC on May 5. The Big Bear Observatory also noted the event, issuing a “Bear Alert” for the Earth to be impacted by the results of a major X-class flare. The results were obvious across the AM band, as transatlantic reception was nil, while stations from southern latitudes were reaching well into the northern United States and Canada.

The solar activity of Cycle 23 is expected to peak by 2000, although some are now predicting that the peak may not occur until as late as 2004. To keep up with the latest solar activity and forecast information, visit the Big Bear Observatory Website at <http://www.bbso.njit.edu>. For solar information specific to DXing, check out the Norwegian DX Listeners Club Website at <http://www.dxlc.com>.

Broadcasters Face The Music

The Canadian Radio-Television Commission (CRTC) has increased the required air-time for music by Canadian artists to 35 percent. Canadian content requirements were previously at 30 percent. The change was the result of a compromise between radio station owners who wanted to loosen the requirements, and the Canadian recording industry which called for an increase to 50 percent. The debate had extended into TV land as well, with the CBC planning to institute an all-Canadian program schedule next season. The CBC has dropped all U.S. programs from their television schedule.

Broadcasting Around The World

"Webcasting" is gaining momentum. Even the smallest stations are being heard around the world via the Internet. Take for example 150-watt WRBC, the broadcast voice of Bates College in Maine. Not only have listeners across the U.S. been calling in to request songs, but the station has also been receiving listener E-mail from as far away as New Zealand and Singapore. In fact, there are now some 4,000 stations broadcasting on the Web. One has to wonder how this is going to affect the DX hobby, especially QSLing. The availability of broadcasts via satellite, cable, and the Internet can only serve to diminish the value of reception reports and QSLs. Perhaps taped reports will have to become the norm for verification of station reception.

Speaking of New Zealand, Pop'Comm reader Marty Foss recently visited a couple of radio stations down under. "As I traveled around the south island of New Zealand, I listened almost everyday to Newstalk ZB, an AM talk radio network on several frequencies throughout New Zealand," says Foss. The south island's network flagship is 3ZB Christchurch on 1098 kilohertz. The ZB network is also on 1ZB Auckland at 1080, 2ZB Wellington at 1035, 4ZB Dunedin at 1044, and 4ZA Invercargill at 864 kilohertz. Foss also had the opportunity to visit the island of Tasmania, where he enjoyed 7HHO "Hobart's Better Music Mix, Mix 101" on 101.7 FM.

Closer to home, "CD Radio" has become one of the first networks licensed by the FCC for DAB/digital radio via satellite. And old-time radio is one of the services the network is expected to pro-
vide. Popular old-time radio programs like "The Shadow" and "The Green Hornet" will be broadcast 24-hours-a-day on one of their 50 satellite channels. CD Radio plans to launch the service in 1999.

**Calling Electronics Experimenters**

Remember building Heathkit radios and televisions? For those who'd like to experiment with AM stereo, along with other facets of broadcast electronics, Heathkit Educational Systems offers a course on wireless communications systems which investigates AM stereo, FM stereo, TV, satellite, and multichannel communications. Emerging HDTV technology is also covered. An AM stereo C-QUAM detector, FM stereo detector, SCA detector, and stereo audio amplifier are part of the model EB-554 lab experiment platform provided with extensive course materials on broadcast systems technology. For additional information, Heathkit can be found on the Web at <http://www.heathkit.com>, or write to them at 455 Riverview Drive, Benton Harbor MI 49022.

**More Radio News/Talk**

Sportscasting legend Curt Gowdy has sold the last of his collection of radio stations. WCCM Lawrence, Massachusetts, on 800 has been sold to Costa-Eagle Radio in partnership with the local newspaper, with the goal of becoming an all-news station featuring local news not covered by Boston stations. The format change may also result in a swap of dial positions with other Costa-Eagle stations WHAV 1490 and WNNW 1110. One plan under consideration would move WCCM to 1490, WHAV to 1110, and WNNW to 800. WNNW "La N Once-Diez" is the lead station of the three, broadcasting in Spanish to Hispanic communities in the Lawrence-Lowell region. The move to 800 would give WNNW improved full-time coverage of its target audience.

In Los Angeles, Spanish newcomer KSCA 101.9 has taken over the top spot in the ratings, beating Spanish sister station KLVE 107.5 FM. News/talk KFI 640 AM is the first among the English-language stations to show up in the ratings, at number five.

In Washington, DC, WWRC and WTEM have swapped frequencies. Bloomberg Business Radio on WWRC is now at 570, and sports talk WTEM is at 980. WTOP-FM has also changed frequency, moving to 107.3 while continuing to simulcast news from 1500 AM.

Congratulations go out to WGN Chicago at 720, named Station of the Year by the Illinois Broadcasters Association. WGN's Bob Collins also received top honors as the Personality of the Year. And congrats to WBZ 1030 radio talk show host David Brudnoy, recipient of the Massachusetts Associated Press award for excellence in news/talk.

**X-Band Files**

A couple of religious broadcasters are spreading the word on 1640. KKJY Lake Oswego, Oregon, is on the air at 1640, simulcasting religious programs from KKSJ 1290. WKSH Sussex, Wisconsin, is expected to be on the air shortly at 1640, if not already. They plan to vacate their 1370 spot on the dial, bringing the WKSH calls and religious programming to 1640, rather than simulcasting for an extended period as other X-banders are doing.

"The Sports Animal" WNML Warner Robbins, Georgia, is now being heard nationwide on 1670, simulcasting 96.5 FM with sports talk from the Sports Fan Network. According to their Web site, the mailing address is 7080 Industrial Highway, Macon, Georgia 31216.

**QSL Information**

555 Radio ZIZ, St. Kitts — Full-data QSL card in 30 days for report and two...
Broadcast Loggings

Patrick Martin in Oregon reports, “One of the best mornings for Hawaiians I've had for a long time. It was unbelievable!” Nile Kelly checks in with the results of DXing in Arizona, and I add some logs of southern latitude stations heard in New Hampshire as a result of the spring solar flare for this month’s selection of loggings. All times are UTC.

540 XEWA Monterrey/Rio Verde, Mexico at 0650 good; band and romantic music, “la gran cadena W” ID, parallel 900. (Conti)

540 XETIN Tijuana, Mexico heard at 0435 with Spanish music and “X-Bach AM” IDs, parallel KNOB Costa Mesa, CA. (Kelly)

550 KMV1 Wailuku, Hawaii, good with “Cruzin’ 55” IDs and weather at 1335, way over KOAC. (Martin)

560 KSFO San Francisco, CA, at 0806 with “Hot Talk 560” ID and “Coast-to-Coast” with Art Bell. (Kelly)

570 KQNG Lihue, Hawaii, very strong over everything else with rock music, ID’s as “Kong,” YMCA spots at 1310. (Martin)

610 R. Difusora Nacional de Colombia, Urubia, Colombia at 0620 fair; rustic music, “cultura de Colombia” ID, parallel 4955 SW. (Conti)

650 KHNR Honolulu, Hawaii at 1430 good with news promos and IDs at 0930, Sacramento way underneath. (Martin)

670 KBOI Boise, ID at 0900 with “Newstalk 670” ID and Idaho Stampede vs. Bobcats basketball. (Kelly)

690 KQMQ Honolulu, Hawaii, fair with Michael Jackson and other pop music. Marijah Carey giving canned ID at 1422. (Martin)

690 XETRA Tijuana, Mexico at 0920 in English with “Sports 690” ID and sports talk. (Kelly)

700 R.Net, Cali, Colombia at 0230 fair; Radio Net ID and woman with news, over an unlD Latin American music station. (Conti)

730 XEX Mexico City, at 0710 fair; “La X de Mexico” ID. ballads and romantic music, over CKAC. (Conti)

760 RCN, Barranquilla, Colombia at 0145 good; “RCN la radio de Colombia” ID, UTC-5 time check, and news, parallel a much weaker signal on 770. (Conti)

760 KGU Honolulu, Hawaii, very good with “One on One Sports” at 0940, many Honolulu area spots. (Martin)

780 Ecos del Torres, San Cristobal, Venezuela heard at 0130 fair; Ecos del Torres promo/ID, nostaligia parallel 4980 SW. (Conti)

900 KNUI Kahalui, Hawaii, at 0950 good with Filipino program, announcer with accent mentioning KNUI, way over others. (Martin)

900 XEW Mexico City, at 0635 good, Mexican accordion and brass “banda” music. (Conti)

940 KJPN Waipahu, Hawaii, very strong (best ever heard) with “JPN” IDs and programming in Japanese at 0947, beautiful Japanese pop music. (Martin)

1160 KSL Salt Lake City, UT, at 0800 “The news watch never stops. KSL 1160, your news, weather, and sports station” and talk about BYU. (Kelly)

1170 KVOO Tulsa, OK, at 0315 with ID as “The Voice of Oklahoma,” an ABC news promo, and C&W music. (Kelly)

1530 KFBK Sacramento, CA heard at 0900 heard through jumble of stations with ID as “AM 1530, Capital City Radio.” (Kelly)

1580 WSRF Ft. Lauderdale, FL at 0445 good; Entertainment Radio with a report from South Florida Internet Weekly, a report on nutrition, weather and 24-hour traffic. (Conti)

1670 WNML Warner Robbins, GA at 0140 good; Atlanta Hawks basketball // WSB-750, “96.5 The Sports Animal” IDs, later an “It takes two to tango” promo announcing the addition of 1670. (Conti)

1701 Radio 1701, Brisbane, Australia, Tentative, with non-stop Hindi programming at 1230-1310, alternating male and female announcers at times. Barely above the noise most of the time. Tentative taped report sent. (Martin)

Many thanks to the following contributors for another great column: Marty Foss, Bob Gilbert, Alan Hilsop, Gary Jackson, Randy Kaeding, Nile Kelly, Patrick Martin, Paul McDonough via BADX, Ronald Slate, Klaus Spies, and Elmer Wallesen.

The FM and TV DX season is here; how about some tips and logs from the MHz end of the broadcast spectrum?

46 / POPULAR COMMUNICATIONS / August 1998
### Seeking Permits to Construct New FM Stations

<table>
<thead>
<tr>
<th>State</th>
<th>City</th>
<th>Frequency</th>
<th>Power</th>
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<td>Bismark</td>
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<tr>
<td>ND</td>
<td>Harwood</td>
<td>100.7 MHz</td>
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</table>

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**Introducing the new CHEROKEE FR-465**

Hand Held Family Radio

Less than 4" tall

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Once again, Cherokee leads the way with today's new technology. Unbelievable range and performance in a super small design. Only from Cherokee!

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<tr>
<td>WV</td>
<td>Vienna</td>
<td>106.1 MHz</td>
<td>(WRZZ booster)</td>
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**Changed AM Facility**

- **WEMB**: Erwin, TN 1420 kHz Added 32 watt
  night service

**Seeking to Change FM Frequency**

- **KTFW**: Stamford, TX 92.1 MHz

**Changed FM Frequencies**

- **WAAI**: Hurlock, MD 100.5 MHz Changed to 100.9 MHz
- **WCKM-FM**: Lake George, NY 98.5 MHz Changed to 99.1 MHz

**New AM Call Letters Issued**

- **KBAG**: Farmington, NM
- **KBCM**: Fort Worth, TX
- **KQJD**: West Fargo, ND
- **KQXX**: Brownsville, TX
- **KSMH**: Auburn, CA
- **KSPW**: Casper, WY
- **KYIZ**: Renton, WA
- **WAXK**: Princeton, NJ
- **WAXP**: Warner Robins, GA
- **WAYU**: Rochester, NH
- **WAZC**: Lexington Park, MD
- **WDHP**: Frederiksted, VI
- **WJVA**: South Bend, IN
- **WMIIB**: Marco Island, FL

**Pending AM Call Letter Changes**

- **New**
  - WZDY
  - WSFN
- **Old**
  - WAOD
  - WPIQ
- **Colonial Heights, VA**
- **Brunswick, GA**

**Changed AM Call Letters**

- **New**
  - KATZ
  - KDXX
  - KENI
  - KFXD
  - KSGT
  - KKWK
  - KMEM
  - KNRS
  - KNWZ
  - KTZN
  - KXPS
  - WDZY
  - WIST
  - WJWL
  - WHT
  - WPTT
  - WIXZ
- **Old**
  - KMJM
  - KDOL
  - KMRT
  - KXAK
  - KKKK
  - KKEY
  - WKBO
  - KICS
  - KISN
  - KPSL
  - KENI
  - KNZ
  - WZOD
  - WTLI
  - WSSR
  - WAWT
  - Michigan, PA

- **St. Louis, MO**
- **Henderson, NV**
- **Dallas, TX**
- **Anchorage, AK**
- **Nampa, ID**
- **Portland, OR**
- **Salt Lake City, UT**
- **Thousand Palms, CA**
- **Anchorage, AK**
- **Thousand Palms, CA**
- **Crete, IL**
- **Statesville, NC**
- **Cape, VA**
- **McKeesport, PA**
### New FM Call Letters Issued

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<thead>
<tr>
<th>Call Letters</th>
<th>City, State</th>
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<tbody>
<tr>
<td>KAZS</td>
<td>Montrose, CO</td>
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<tr>
<td>KAZX</td>
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<td>KBM1</td>
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<td>KBAJ</td>
<td>DeRidder, LA</td>
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<td>KBCW</td>
<td>McAlester, OK</td>
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<td>KGUL</td>
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<td>KISU-FM</td>
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<td>Pittsfield, IL</td>
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<td>Sister Bay, WI</td>
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<td>WARD</td>
<td>Charlotte Amalie, VI</td>
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<td>WAYD</td>
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<td>WAWI</td>
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### Changed FM Call Letters

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<td>WVTY</td>
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<td>WHMX</td>
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<td>WBT</td>
</tr>
<tr>
<td>WYST</td>
<td>WJCO</td>
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</tbody>
</table>
PCR1000 Update And New AOR Receiver

I've been using my ICOM PCR1000 for about two months now, and have been very pleased with this unit. My job requires me to travel three out of four weeks in a month, and the PCR1000 has found a permanent home in my notebook's carry bag. I set this up in the hotel room each time, and get a chance to do some monitoring in the evenings.

I've found that HF reception using the supplied antenna, or the RS telescoping whip, was not so hot in the western U.S. I fixed that by going down to RadioShack and picking up a solderless male right-angle BNC with strain relief (Part No. 278-126) and a 50-foot spool of 30 AWG Kynar insulated wrapping wire (Part No. 278-501). It was easy to attach one end of the wire to the BNC, and now when I set up the radio, I string out as much as I can across the room, and am able to hear some weaker signals.

I spoke with ICOM America, and they confirmed that they're making the command set for the interface available to qualified developers of radio control software. This should speed the addition of support for this radio in third party packages, and allow for features not found in the included software.

Breaking News!

As this column was being prepared for submission, word of a new radio from AOR was beginning to circulate on the net. The AR8200 is a portable being billed by AOR as "The Superior Concept" receiver. Although limited information was available at press time, be sure to check out <http://www.qsl.net/n2mca/NEWSFLASH.HTM>. You may want to use a search engine to find out more on this new handheld receiver. Rich Wells maintains this site, and there's a lot of good stuff regarding new scanners and other items of interest.

GMRS/FRS Mailing List

For those of you interested in the General Mobile Radio Service (GMRS) or the new Family Radio Service (FRS), there's a mailing list that you can join. Doug Smith has info on GMRS on his Web page at <http://www.dougweb.com/gmrs.html>. To subscribe to the list, send a message to <majordomo@tpas.palladium.net> and include the following in the body: "Subscribe gmrs" and your E-mail address.

I recently picked up two Motorola TalkAbout FRS radios, and, based on my satisfaction with both the performance and the affordability, I predict there will be lots of activity on the FRS channels.

Mailbag

Do you need remote control software for your AR8000 or information about
"The AR8200 is a new portable, billed by AOR as ‘The Superior Concept’ receiver."

the EEPROM in your AR5000? Well, Buylsen Gommert (<gommert.buylsen@micromass.co.uk>) wrote to say that both items can be found on his Web site at <http://www.geocities.com/SiliconValley/Horizon/9163/arc.html>.

John Fallows, VE6MBA (<john.fallows@shaw.wave.ca>), wrote to tell me about the latest version of ERGO. This is a Windows program that allows for receiver control with radios such as the AR7030, NRDS35, NRDS53D, R8A, R8B, and HF-1000. There’s a companion product that supports lookup into some third party databases. These supported databases include the BC98 shortwave database contained on the Klingenuß Super Frequency List CD-ROM, as well as the ILG shortwave and mediumwave databases. Windows 95 or NT and a Pentium-class processor are some of the hardware requirements. Check it out at <http://calgary.shaw.wave.ca/~jfallows/ergo1.htm>.

Scanning Links

Terry (<scorpion@centel.com>) wrote to say that he’s built a large Web page of scanning links at <http://www1.centel.com/scorpion/scanner.htm>, so check it out if you’re looking for pages that might cover a specific area.

Scott Bias (<CTPDS49@aol.com>) sent along a link to his Web page at <http://members.aol.com/ctpds49/index.htm>, which has information about CTP Speech Inversion Descramblers and how to purchase them.

OK, I admit a Web page about how to avoid some poor design features when creating your own Web page isn’t directly related to radio, but I thought I’d mention it because a lot of us create our own pages, or read those of others. Check out <http://www.glover.com/sucky.html> for some tips with a little humor thrown in. Don’t be surprised if you see a couple that apply to your own pages.

If you’re interested in finding out more that will aid in your monitoring of federal agencies, try the search bot at <http://citir.cs.umass.edu/CIIRdemo/Govbot/>. Another good URL to check out belongs to the National Telecommunications & Information Administration. They’re at <http://www.ntia.doc.gov/>. These types of searches can turn up all kinds of information, such as contract awards and requests for bids that detail the types of technology required and implemented.

Israel On The Web And AR8000 Toolkit Update

Daniel (Doni) Rosenzweig (<danielznz@touro.edu>) sent me an E-mail with a load of Web links for information on Kol Israel Shortwave Radio in Israel on the WWW. Send me an E-mail and I’ll forward a copy to you if you mention that you’re interested in the links.

Eddy J. Gurney (<edddy@mich.com>), author of the AR8000 ToolKit, wrote to announce the release of version 2 of their popular Macintosh-only shareware package for controlling and programming the AOR AR8000 handheld receiver. One of the features of this product is a simulated keypad and display that matches that of the AR8000, and is displayed on your computer’s desktop. This interface lets you control the radio via your keyboard and pointing device. Frequency data can be edited and transferred between your Mac and the radio, and all of the radio’s features may be configured via the software interface. This new version offers fully native support for Power PC users, but is still compatible with any Mac capable of running System 7.0 or later with at least 2MB of free memory.

AR8000 ToolKit Update 2.0 is available for download from the EddyWorks Web site, located at <http://www.mich.com/~edddy/works/>. This will allow you to try the program out to see if it meets your needs prior to registration.

For those of you without access to the Internet, a registered copy of the latest version of AR8000 ToolKit on disk can be obtained by sending in a check or money order for U.S. $50 to: Eddy J. Gurney, 18712 Westbrook Way, Livonia, Michigan 48152-2896.

André Brandao (<aerb@camoes.mil.br>) wrote to mention that his software is used by many monitoring and aviation enthusiasts to convert their PCs into radar screens displaying the aircraft that cruise the skies of the globe. If this sounds like something that interests you, surf on over to <http://www.geocities.com/SiliconValley/Lakes/9420> and check it out.

BAYSCAN Mailing List

Thanks to James Cook, scanning enthusiasts in the San Francisco Bay area have a mailing list on which to discuss their interests. You can sign up by sending a message to <subscribe-bayscan@hp.ipnetwork>.

Frequently Asked Frequencies File

One of the things that I recommend every scanner keep a copy of is the Frequently Asked Frequencies file, or FAF.TXT, that’s maintained by Barry Mulligan at <mulligan@acm.org>. You can get this file via <ftp://oak.oakland.edu/pub/hamradio/docs/misc/scanner.fat>, or from the Scanning Library Number Two in the HamNet forum found on CompuServe.

Till Next Time...

That’s it for this column, but if there’s something that you’d like to share with other readers, or were wondering about, drop me an E-mail at <griffin@sprynet.com> or a letter, and I’ll see if we can cover it next time.

We Have Scanners with 800MHz Coverage!

ICOM R9000, R8500, PCR1000, R100, R10, R2
Yupiteru MVT-9000, MVT-7100, MVT-8000
AOR AR-5000, AR-5000+3, AR-3000, AR-8000
OPTOELECTRONICS Xplorer, R11 (Nearfield Receivers)
WiNRADIO WR-1000i, WR-1500i/e, WR-3000DSP
New Icom R-10 Wide Range Receiver

<table>
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<tr>
<th>Frequency Coverage</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>500 kHz – 1300 MHz</td>
<td>As advertised</td>
</tr>
</tbody>
</table>

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There's Square Dance Music, Erotic Talk, And Much More
In The Pirate Realm!

What a collection this month! More than 40 loggings follow, so let's get on with the show.

Anteater Radio, 6955 USB at 0024 played songs by other than those most associated with them. Another time at 0024 the station was heard with the same programming approach. Mentioned they had all sorts of QSL designs. Also at 0043 claiming to be broadcasting from West Virginia while waiting to be loaded. (Silvi, OH)

WLIQ, 6955 USB heard at 0117. Sounded like square dance music. (Jerry Coatsworth, ON) 0330, 2047, and 0058. (Lee Silvi, OH) 1708 and 2052. Off with Blue Ridge address. (Dave Jeffery, NY)

Altered States Radio, 6955 USB heard at 1515 with weather for Caribbean. (Coatsworth, ON) 2020 and 2101. (Silvi, OH)

WUNH, 6955 USB heard at 2122 with songs and IDs. (Silvi, OH)

WMPR, 6955.4v AM at 2140 with soft rock, and dance. (William Hassig, IL) 6955 at 2030 with usual format, also 2238. (Silvi, OH)

Free Radio 888 (?) 6955 USB at 2119 discussing gas masks, survival, etc. (Silvi, OH)

Triple 888 (same as above? Ed) 0319 at sign off mentioning Midwest U.S. (Coatsworth, ON)

Free Hope Experience, 6955 USB at 0211, possibly live. Also 1859 with sign on. (Silvi, OH)

Mystery Radio, 6966 USB at 0956 to close with “Miss Giggles” at 1003 followed by a QSO. (Buch, state?) 0517 with instrumental versions of rock numbers. (Coatsworth, ON)

Take It Easy Radio, 6955 USB at 2025 to 2105 close with “Talk It Easy” by the Beatles. QRM from a “Radio Caliente” testing. (Buch)

Radio Eclipse, presumed, 6955 USB at 0020 with a song and what sounded like mention of “a Radio Eclipse presentation.” (Silvi, OH)

Eve of Destruction, 6955 USB at 0245. “Eve of Destruction” song with some Gulf War clips, also heard an ID for Alpha Romeo 876 just before the broadcast. Also tentative at 2037. (Silvi, OH)

WSRR (tentative call), 6955 USB at 2255. Also at 0104 with IDs, music, mail drop. Also at 1430 with mention of Sen. Edward Kennedy. (Silvi, OH)

WGTG (fake) 6955 USB “Glory to

The Voice of Shortwave Radio
New Listener Certificate

awarded to

WILLIAM K. FLAGEL

Thanks For Tuning Us In!
You Are Listener #2! Congratulations!!

Presented on:
“JUL 3 O 1997

Tune In Again Next Time, and Good DV!

Bubba, Owner / Operator

William Flagel got QSL number two from the Voice of Shortwave Radio, one of the many pirates reported this month!
Gumby,” “Glory to Garters.” My first pirate log! (Ken Metz, OH) 2234 with Bam Stoker ID, kid music. parents should leave the room. Also heard at 1535 with “Ron Popsmear of the FCC.” (Coatsworth, ON) At 2322 with repeat program. 1823 with hilarious spoof of the real WGTG. (Silvi, OH)

WLIS, 6955 USB at 0452. Jack Boggan updater on who has the most WLIS QSLs. (Coatsworth, ON) at 0004 with repeat of their 8th anniversary show. Again at 2316. (Silvi, OH)

Radio Pinnochio, tentative, 6955 USB at 0058 with songs and IDs.

K-2000, 6955 USB heard at 0125 with songs, IDs and “America’s great stuff.” (Silvi, OH)

Radio Nonsense, 6955 USB at 0209 with music and IDs. Also at 0202 with usual format. (Silvi, OH)

Voice of Hell, 6955 USB at 0255 with Guns and Roses, several IDs. Also at 2354. (Silvi, OH)

Radio Gerbil, 6955 USB at 1445 with repeat of an earlier program. Again at 1743 and 2319. Also 1818 with mix of Radio Azteca clips. (Silvi, OH)

Radio Metallica World Wide, 6955 at 1845. (Coatsworth, ON) Also at 1701. And at 1802 and 1613, with “Monster Hash” and commentaries. (Silvi, OH)

Montana Audio Relay Service, 6955 USB at 1841 with address as Box 293, Berlin, ON NOP 1WO, Canada. Off at 1915. (Jeffery, NY) 2340 with presumed repeat. (Silvi, OH)

WORD, 6955 USB at 0042 with talk show on survival tactics. (Silvi, OH)

KORN, 6955 USB at 0219 with country music from Kentucky and Providence, RI, address. (Silvi, OH)

Radio Outpost, 6955 USB at 1815 with music from the ’20s and ’30s, calling themselves the “last bastion of civilized radio. broadcasting worldwide and to all the ships at sea.” (Dean Burgess, MA) 1752 with old songs; “Three Coins in the Fountain” etc. (Silvi, OH)

Radio Universe, 6955 USB heard at 07616 after QSO with Mystery Radio. (Coatsworth, ON)

WKND, 6955 USB heard at 0015 with Radio Animal and friend Ricochet. (Coatsworth, ON)

Radio Tornado, 6955 USB at 1705 with taped segments of Radio Metallica. (Dean Burgess, MA) Tentative, 6955 USB at 0035. (Silvi, OH)

One Voice Radio, tentative, 6955 USB heard at 1727 with talk show format. (Silvi, OH)

Voice of Shortwave Radio, 6955 USB at 2141 with an Ajax Pet Store spoof. (Dean Burgess, MA) 2210 with usual format. (Silvi, OH)

Voice of Green Acres at 0010 with talk of Lincoln, Jefferson, and bits from KAT tapes. (Hassig, IL) 2210 with usual IDs and theme music. (Silvi, OH)

WPAT, 6955 USB with Monkees tunes and others. E-mail as “…excite.com.” (Silvi, OH)

Voice of South Ireland, tentative, 6955 USB at 2305 with talk of Ireland and Irish pirates. (Hassig, IL)

KRAP, 6956 at 0050. Said playing 12-inch disco records, QSL via Blue Ridge Summit. (Hassig, IL)

WMOS, tentative, 6955 USB at 0015 with music, phone call. (Hassig, IL)

Radio Azteca, 6955 at 1750 calling themselves “Montezuma’s Revenge — radio for all that’s gross and distasteful — the station that lifts and separates — one of America's gross national products.” (Burgess, MA)

Rock It Radio, 6955 USB at 2048 with rock, ID, off at 2051. (Jeffery, NY)

WFJB, 6955 heard at 2151 with “cheesy” music. Off at 2157. no address. (Jeffery, NY)

One Horse Radio, 6955 USB at 1823 with talk of toxic chemical pollution, medical research. Off at 1840 with Belfast address. (Jeffery, NY)

Radio Erotica, 6955 USB, at 1916 with music and erotic talk. Providence address. (Jeffery, NY)

Laser Hot Hits, 6955 USB at 1957 with ‘50s and ‘60s rock. Off at 2044 with Berlin, Ontario address. (Jeffery, NY)

Betty Boop Radio, 6955 at 1430 with Betty Boop sound effects, Popeye theme, Providence address. (Jeffery, NY)

Thanks for the great logs and great support. Keep it coming, gang!
R.L. Drake’s R8B Communications Receiver

The Exceptional R8B Has Plenty Of “Standard Equipment”

It’s hard to improve on perfection, but in my opinion, R.L. Drake has done it again. I’ve been using the older, renowned R8, with its 100 memories, superb filtering, sensitivity, and great audio for a number of years, and until now, never thought of needing another receiver. But after trying out the R8B for a couple of months, that notion has changed!

The “package” looks nearly the same as the original R8. The rig is housed in a sturdy black metal cabinet with an impressive array of push-button controls on the front panel, and large display window. There are significant differences between these two model receivers. Whereas on the older R8, a couple of key presses were required to change bandwidths and mode, a single keypress on the R8B changes to any of the five filters: 6.0, 4.0, 2.3, 1.8, and 0.5 kHz (or auto, and the receiver will change to the common bandwidth for the mode you’re using). There are other improvements, which we’ll get to in a few moments.

I got the original R8 for two reasons: It was a top-of-the-line receiver that didn’t need additional filters or accessories to enhance its performance. Connect a good outdoor antenna, and you’re in business. The same is true for the new R8B: Buy this receiver, and you’re all set. And you don’t have to mortgage the house or sell the family car to own this radio!

Front Panel Layout

This is probably one of the least-complicated receivers I’ve ever operated. It only takes a few minutes to learn the ins and outs of the operation thanks to an intuitive large, LED illuminated front panel and well-written manual. There’s a firm feel to the rubberized pushbuttons, which are all clearly labeled and easily visible even in minimal lighting. And the way the panel is organized makes changing modes, adding the noise blanker, or scanning frequencies a breeze. Of course there’s still the tuning wheel located just off-center which zips through frequencies according to user-set parameters. You can program the receiver to tune in three steps with corresponding readout on the large display: 1 kHz, 100 Hz, or 10 Hz (the latter used mostly for tuning sideband, CW or data signals). You can even program the step size for a specific mode with a couple of simple key presses.

The R8B tunes the entire shortwave spectrum from 100-30,000 kHz in AM, LSB, USB, CW, RTTY and FM modes, and operates on various worldwide voltages (make sure you’ve got the voltage selector switch set properly before plugging the unit in!). New in the R8B is the detachable power cord — excellent if you’re a frequent mover, as it allows for easier packaging for your move.

Easy Programming Of 1,000 Channels!

From the factory, the American-made R8B comes preprogrammed with 20 standard frequencies including WWV, CHU, and a handful of shortwave broadcast frequencies. But you’re in control of the receiver, and can easily overwrite these because of those 1,000 user-programmable memory channels. They’re divided into blocks of 10; in this way you can group your frequencies in any number of ways to suit your own personal listening. Programming the memories takes only a few minutes, but once you’re finished, you’ll be able to scan or automatically monitor your programmed frequencies that store Frequency, mode, bandwidth, AGC setting, PRE or ATTN setting, Antenna, Notch On/Off, Noise blanker setting, Synchronous detector On/Off and NAME. Of course, you don’t have to sit down and program the memories the minute you plug in the receiver; take some time to get used to the radio, compile a list of stations/frequencies and make programming the memories a rainy day project once you’re more familiar with the radio. Then sit back and enjoy all that the R8B has to offer, giving you the DX edge, and making your listening more enjoyable.

I’ve programmed all my favorite military, air, SW broadcast, and Coast Guard frequencies, and still have room for hundreds more. And scanning is faster than the older R8; the new R8B zips through programmed channels at a good clip — certainly sufficient for any radio enthusiast. On the DX side of things, I programmed in various targets in Africa and the Middle East, so checking these stations could be done at the push of a but-
especially considering the many readers this is a pretty strong statement to make, I realize that completely eliminated my power line and THE MONITORING MAGAZINE

noise blanker in 8 out of 10 instances on the receiver's meter. Enabling the computer -generated hash at my monitoring mittent power line noise and interference encountered." Right

will reduce or eliminate much noise inter-


circuit truly amazed me, to the point of the desired signal, will typically allow the detector to "lock" onto the desired signal with amazing clarity. If you're still not satisfied, you can use the SYNC control in conjunction with pressing either the LSB or USB button (you'll still be in the AM mode), putting you in the SSSD mode to further separate offending signals.

A Great Noise Blanker!

The R8B's noise blanket has two settings which are easily enabled or disabled at the push of a button. About the noise blanker, the manual states, "... which will reduce or eliminate much noise interference encountered." Right on the money, Drake! I'm plagued with intermittent power line noise and even computer-generated hash at my monitoring post, that often reads between S7 and 9 on the receiver's meter. Enabling the noise blanket in 8 out of 10 instances completely eliminated my power line and manmade electrical noise. I realize that this is a pretty strong statement to make, especially considering the many readers who are also tortured by noise, but the effectiveness of the R8B's noise blanker circuit truly amazed me, to the point where I found myself turning the noise blanket on and off several times just to experiment with eliminating noise. (Perhaps New Jersey's GPU will be hearing less from me now!)

R8B Specifications

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<th>Value</th>
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<tr>
<td>Modes</td>
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<td>Sensitivity</td>
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</tr>
<tr>
<td>Sensitivity (SSB, CW 10dB S+N/N)</td>
<td>Less than 0.25 µV (preamp on)</td>
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<tr>
<td>Sensitivity</td>
<td>1.5 µV nom (preamp off)</td>
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<tr>
<td>Sensitivity (AM 10dB S+N/N, 1000 Hz, 30% mod)</td>
<td>Less than 1.0 µV (preamp on)</td>
</tr>
<tr>
<td>Sensitivity (FM 12 dB SINAD)</td>
<td>Less than 0.5 µV</td>
</tr>
<tr>
<td>Frequency Accuracy</td>
<td>Better than ± 100 Hz</td>
</tr>
<tr>
<td>Selectivity (AM, LSB, USB, RTTY, CW)</td>
<td>6 kHz @ -6dB, less than 12 kHz @ -60dB</td>
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<tr>
<td>Selectivity</td>
<td>4 kHz @ -6dB, less than 8 kHz @ -60dB</td>
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<tr>
<td>Selectivity</td>
<td>2.3 kHz @ -6dB, less than 4.5 kHz @ -60dB</td>
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<tr>
<td>Selectivity</td>
<td>1.8 kHz @ -6dB, less than 3.6 kHz @ -60dB</td>
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<tr>
<td>Selectivity</td>
<td>500 Hz @ -6dB, less than 1.5 kHz @ -60dB</td>
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<tr>
<td>Ultimate Selectivity</td>
<td>Greater than 95dB</td>
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<tr>
<td>Image Rejection</td>
<td>Greater than 80dB</td>
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<tr>
<td>IF Rejection</td>
<td>Greater than 80dB, 45 MHz</td>
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<tr>
<td>Dynamic Range</td>
<td>Greater than 100dB, 50 kHz</td>
</tr>
<tr>
<td>Notch Filter Attenuation</td>
<td>97dB, 100-30,000 kHz @ 100 kHz spacing</td>
</tr>
<tr>
<td>Notch Filter Attenuation</td>
<td>AF type, 40dB min. Depth (500-5000 Hz)</td>
</tr>
<tr>
<td>External Speaker Output</td>
<td>2.5W, 4 ohms @ less than 5% distortion</td>
</tr>
<tr>
<td>Line (recorder) Output</td>
<td>300 mV, 4.7K Ohms</td>
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<tr>
<td>AC Power Requirements</td>
<td>100/120/200/240 Vac</td>
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<tr>
<td>DC Power Requirements</td>
<td>11-16 Vdc @ 2 A</td>
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<tr>
<td>Weight</td>
<td>13 lb</td>
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<tr>
<td>Dimensions (HWD)</td>
<td>5 1/4&quot; (including feet) x 13 1/8&quot; x 13&quot;</td>
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</table>

Also in the new R8B is the alphanumeric display, and an improved AGC (automatic gain control) for sideband monitoring. Speaking of SSB monitoring, the receiver automatically selects the 2.3 kHz bandwidth filter for either USB achieved, delivering to your ears the best possible audio of a fading signal, or one that's arriving at your antenna at varying effects of propagation. It's truly a worthwhile control that you'll use quite often! It can also be used to reject interference from an adjacent signal. Since an AM signal is comprised of two sidebands, additional careful adjusting of the tuning wheel, in conjunction with use of the AM/SYNC button to tune either sideband of the desired signal, will typically allow the detector to "lock" onto the desired signal with amazing clarity. If you're still not satisfied, you can use the SYNC control in conjunction with pressing either the LSB or USB button (you'll still be in the AM mode), putting you in the SSSD mode to further separate offending signals.

Additional Features And Operation

The new R8B's noise blanket has two settings which are easily enabled or disabled at the push of a button. About the noise blanker, the manual states, "... which will reduce or eliminate much noise interference encountered." Right on the money, Drake! I'm plagued with intermittent power line noise and even computer-generated hash at my monitoring post, that often reads between S7 and 9 on the receiver's meter. Enabling the noise blanket in 8 out of 10 instances completely eliminated my power line and manmade electrical noise. I realize that this is a pretty strong statement to make, especially considering the many readers who are also tortured by noise, but the effectiveness of the R8B's noise blanker circuit truly amazed me, to the point where I found myself turning the noise blanket on and off several times just to experiment with eliminating noise. (Perhaps New Jersey's GPU will be hearing less from me now!)

**R8B Specifications**

- Frequency Range: 100 kHz – 30 MHz
- Modes: AM, LSB, USB, CW, RTTY and FM
- Sensitivity: 0.5 µV nom (preamp off)
- Sensitivity (SSB, CW 10dB S+N/N): Less than 0.25 µV (preamp on)
- Sensitivity: 1.5 µV nom (preamp off)
- Sensitivity (AM 10dB S+N/N, 1000 Hz, 30% mod): Less than 1.0 µV (preamp on)
- Sensitivity (FM 12 dB SINAD): Less than 0.5 µV

**A Great Noise Blanker!**

The R8B's noise blanket has two settings which are easily enabled or disabled at the push of a button. About the noise blanket, the manual states, "... which will reduce or eliminate much noise interference encountered." Right on the money, Drake! I'm plagued with intermittent power line noise and even computer-generated hash at my monitoring post, that often reads between S7 and 9 on the receiver's meter. Enabling the noise blanket in 8 out of 10 instances completely eliminated my power line and manmade electrical noise. I realize that this is a pretty strong statement to make, especially considering the many readers who are also tortured by noise, but the effectiveness of the R8B's noise blanker circuit truly amazed me, to the point where I found myself turning the noise blanket on and off several times just to experiment with eliminating noise. (Perhaps New Jersey's GPU will be hearing less from me now!)

**Synchro - Selectable Sideband Synchronous Detector**

It's true that we see lots of fading of shortwave signals, and doing something about it is usually beyond your control, but it isn't with the R8B. Once an AM station is tuned in, adjust the Passband Offset control, and press AM/SYNC to activate the synchronous detector. The word "SYNC" will be displayed in the window, and flashes briefly until a "lock" is achieved, delivering to your ears the best possible audio of a fading signal, or one that's arriving at your antenna at varying effects of propagation. It's truly a worthwhile control that you'll use quite often! It can also be used to reject interference from an adjacent signal. Since an AM signal is comprised of two sidebands, additional careful adjusting of the tuning wheel, in conjunction with use of the AM/SYNC button to tune either sideband of the desired signal, will typically allow the detector to "lock" onto the desired signal with amazing clarity. If you're still not satisfied, you can use the SYNC control in conjunction with pressing either the LSB or USB button (you'll still be in the AM mode), putting you in the SSSD mode to further separate offending signals.

**Additional Features And Operation**

The new R8B is the alphanumeric display, and an improved AGC (automatic gain control) for sideband monitoring. Speaking of SSB monitoring, the receiver automatically selects the 2.3 kHz bandwidth filter for either USB...
A look at the rear panel of the R8B.
of LSB. However, if you experience interference from an adjacent station, you can always manually select the built-in 1.8 kHz filter, which is automatically selected if you’re tuning RTTY signals. I checked out several military frequencies including 11175 and 6761 kHz to see how well the R8B fared rejecting adjacent channel interference. The pre-set 2.3 kHz bandwidth filter sufficiently reduced or eliminated nearby interference, especially when I used it in conjunction with the Passband Offset control. It only needed a minor adjustment to provide clear reception of sideband stations on frequencies where interference was a problem.

On the AM side of the house, the R8B also shines brightly. With so many powerhouse international broadcasters around these days, hearing a low-powered station on a nearby frequency can be a challenge for many receivers. Not the R8B. The 49-meter band at night can be a listener’s nightmare — or dream — depending on your receiver and antenna combination. With my outdoor 50-foot longwire, stations would boom in, easily pushing the analog S-meter to the limit. Hearing stations between these monster broadcasters isn’t easy, but the R8B, continuing on the tradition of the former R8, performed flawlessly. Most of my shortwave listening is done using the 4.0 kHz bandwidth which is just narrow enough to reject adjacent stations, but when the going gets rough, switching to the narrower 2.3 kHz (normally reserved for sideband reception) the desired stations are pulled out of the mud with only a slight degradation in audio quality — truly, a very impressive filter!

My only criticism of the R8B is a minor one: The new flip-down metal bar that elevates the receiver for a proper viewing angle takes near super-human strength to pry the bail open, but once it’s opened and angled takes near super-human strength to elevate the receiver for a proper viewing angle. My arm strength simply does not equal near super-human strength. The bail is designed to work when the receiver is in the “up” position, but it takes a lot of arm strength to lift the receiver up.

But if you asked me for a short one-liner evaluation of the new Drake R8B, it would be “it’s a classy, smooth, well-thought-out and engineered receiver for the serious DXer as well as casual listener.” Drake has clearly listened to the suggestions and comments from R8 and R7 owners; the R8B is the culmination of their years of experience and dedication to the communications hobby.

There’s also an optional VHF converter accessory that provides you with additional frequency coverage of 35 to 55 and 108 to 174 MHz. Drake recommends a qualified service tech install the converter. It typically sells for about $199.

Drake recommends installing the receiver control program specified for the R8 family of receivers called FirstRate. It really lives up to its name. It comes with a complete database of shortwave broadcasters. Install FirstRate in Windows™ and simply connect a serial cable between your computer and Drake R4, R8A or R8B, and you’re in charge of a multitude of receiver functions with FirstRate. So be sure to check out next month’s Pop Comm.

The Drake R8B retains for $1,199, and is available directly from the R.L. Drake Company, 230 Industrial Drive, Franklin, OH 45005 with a 15-day money back guarantee, or from radio dealers nationwide. The receiver carries a one-year warranty. For additional information, be sure to stop by Drake’s Web page at <http://www.rldrake.com> or call them at 513-746-4556.

World’s Most Powerful CB and Amateur Mobile Antenna

**Guaranteed To Transmit and Receive Farther Than Any Other Mobile CB Antenna or Your Money Back**

The Wilson 1000 higher gain performance is a result of new design developments that bring you the most powerful CB base loaded antenna available.

Why Wilson 1000 Performs Better

Many CB antennas lose more than 50% of the power put into them. The power is wasted as heat loss in the plastic inside the coil form and not radiated as radio waves.

We have designed a new coil form which suspends the coil in air and still retains the rigidity needed for support. This new design eliminates 95% of the dielectric losses. We feel that this new design is so unique that we have filed a patent application on it. In addition, we use 10 Ga. silver plated wire to reduce resistive losses to a minimum.

In order to handle higher power for amateur use, we used the more efficient direct coupling method of matching, rather than the lossy capacitor coupling. With this method the Wilson 1000 will handle 3000 watts of power.

The Best You Can Buy

So far you have read about why the Wilson 1000 performs better, but it is also one of the most rugged antennas you can buy. It is made from high impact thermoplastic with ultraviolet protection. The threaded body mount and coil threads are stainless steel, the whip is tapered 17 ph stainless steel. All of these reasons are why it is the best CB antenna on the market today, and we guarantee to you that it will outperform any CB antenna (R4, R8, or R8B), you name it or your money back.

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**THE MONITORING MAGAZINE**

August 1998 / POPULAR COMMUNICATIONS / 59
T he Voice of America — all news, all the time! This startling switch in programming philosophy at the VOA should be in place by now. The new format offers news in English around the clock, shortens the length of news items, and is designed to move at a faster pace. Hopefully, we'll continue to hear a wide variety of stories from, or about, a wide variety of places. And, hopefully, VOA won't become a news clock "VOA News time two past the hour," and, hopefully, we won't hear "traffic and weather together on the ones" or any of the other cute gimmicks used by today's all-news stations on the broadcast band.

Another VOA note: The relay station at Rhodes, Greece, was to have closed down sometime during July.

A new station on the air from Porto Alegre, Brazil, is Sistema LBV Mundial, a religious broadcaster operating on 11895. We don't know their exact schedule calls for broad-

A "new" Costa Rican shortwaver is Radio 88 Estero in Perez Zeledon on 6070. This station was reported briefly copying this one due to CFRX/CFRB's occupation of 6070. You're probably going to have trouble hearing this station relays the local San Jose FM outlet on 88.5 and operates from 1000–0500 AM. The address is Apartado 827-8000, Perez Zeledon, Costa Rica. You're probably going to have trouble copying this one due to CFRX/CFRB's occupation of 6070. Remember RTBF, the Belgian French language community station which used to broadcast on shortwave? Well, it's sup-

Here's the current schedule for Radio Canada International in English. Note, too, the schedule of broadcasts by Canadian Armed Forces Radio.

<table>
<thead>
<tr>
<th>UNITED STATES, CARIBBEAN</th>
<th>LATIN AMERICA</th>
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<tbody>
<tr>
<td>100-200</td>
<td>0700-0900</td>
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<tr>
<td>100-200</td>
<td>0900-1100</td>
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<td>100-200</td>
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<tr>
<th>EUROPE, AFRICA</th>
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<th>CANADIAN ARMED FORCES</th>
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BY GERRY L. DEXTER
posed to return, only not via the Belgian-based transmitters of Radio Vlaanderen International, it formerly used. These transmitters are in constant use by RVI, so RTBF is seeking to rent time somewhere. It’s always great to see stations realize the error of their ways, even if it does take time for the light to go on — in this case about seven years!

Maybe the dark cloud hanging over HCJB’s transmitter site, in the form of a new airport planned for Pifo, isn’t as dark as first thought, or is at least approaching from a lot further away. Reports now say that the Ecuadoran government hasn’t yet made a commitment to begin building the airport. If the airport is not built, then the Pifo transmitting site would not have to be torn down. A lot will depend on which party wins the upcoming elections, due to be held in August.

Remember, we always seek and welcome your input. Logs should be listed by party wins the upcoming elections, due to the Pifo transmitting site, in the form of a ground information. Thanks for your continuing interest and cooperation!

Here are this month’s logs. All times are in UTC, which is five hours ahead of EST, i.e., 0000 UTC equals 7 p.m. EST, 6 p.m. CST, 5 p.m. MST, and 4 p.m. PST. Double capital letters are language abbreviations (FF = French, AA = Arabic, SS = Spanish, etc.). If no language abbreviation is included, the broadcast is assumed to have been in English.

ABKHAZIA — Radio Republik Abkhazia, tentative, 9494.7 at 0329 with tone, open carrier, chorus, talk, piano. This station was heard during an amazing opening to Eastern Europe and the Middle East. (Paszkiewicz, WI)

ALBANIA — Radio Tirana, 6025, 7135, 7160 at 0246. (Miller, WA) 6090v at 0050 with local folk music, talk in Albanian. Good level but unstable, wobbly carrier creating het with Caribbean Beacon on 6090. 7769.89, 6113.26 at 0245. Better on parallel 7160. Also 7283.6v and 7275.2 at 0150 to 0220, weak and distorted. Parallel 6080 with slight wobble. (Alexander, PA) 7160 at 0250, 0340. (Delfrate, PA)

ANDAMAN ISLANDS (India) — All India Radio, Port Blair, 4760 at 1152 to 1214 fade. YL talk, subcontinental music, tabla drums, possible mention of Port Blair, flute. (Paszkiewicz, WI)

ANTIGUA — BBC relay, 5975 at 2200 and 0000. (Jeffery, NY)

ARGENTINA — Radio Nacional, 15345, poor in SS at 2331. (Miller, WA)

ASCENSION ISLAND — BBC relay African program stream, 15400 at 2000 and 17830 at 1808. (Jeffery, NY)

AUSTRALIA — ABC, VL8T, Tennant Creek, 2325 at 1112 with fishing program.

We don’t make SCANNERS or the ICOM IC-R8500 RECEIVER - We make them better -

DELTA.COMM 1-8500 Communication Manager for the ICOM IC-R8500 Receiver. With speed as a design goal DELTA.COMM's QUICK LOG function will log signal level, frequency, mode, date, time and optional Global Positioning System (GPS) coordinates at speeds in excess of 2400 channels per minute. Here are a few examples of the many advanced features DELTA.COMM 1-8500 has to offer:

- Load 40 channels of information including ALPHA NUMERICS into one of the R8500’s memory banks in 3 seconds.
- Separate volume level, resume scan delay and maximum monitor delay plus 40 character information field for each scan channel.
- Priority channel operation samples at 2.5 second intervals.
- Multi-receiver control will hand off active frequency to next receiver on line. Able to control up to 125 ICOM receivers (optional).
- Traditional scanning is a thing of the past with our CYBERSCAN feature, used to track systems employing frequency hopping.
- Activity log function automatically records and calculates total spectrum usage time.
- Unique search operation stores all frequencies found active and then automatically skips those frequencies during the remaining search cycles. This feature eliminates redundant logging.

Visit our Internet Web Page or Phone/FAX us for program features, new product releases and pricing schedule. DELTACOMM is available for ICOM R9000, R7100, R7000, R71, R72, IC-735 (features vary with type of radio). Also check out our DELTATONE 2.0 repeater programmer.

http://www.execpc.com/~deltacom
This sharp QSL is from RDP Internacional, the Portuguese government broadcaster which discontinued foreign language broadcasts earlier in the year, and now airs programs in Portuguese only. (Thanks: Andy Johns, Texas)

(Foss, AK) Radio Australia, 9580 at 0805, parallel 9710. Also at 1220. 9710 at 1135. (Delfratte, PA) 9710 at 1031 with news in unidentified language. (Gillihan, AR) 1046 in EE and Tok Pisin. (Ziegner, MA) 15240 at 0432 and 17795 at 0233. (Jeffery, NY)

at 2358 to 0102 with test broadcasts. 15 minutes of music with IS and SS IDs at 0000 and 0032. EE IDs at 0014 and 0047. (Silvi, OH)

CHINA — Voice of Pujian, 3280 at 1118 with CC vocals. (Foss, AK) China Radio Int'l, 9690 (via Spain) at 0330. (Delfratte, PA) 9730 (via Fr. Guiana) at 0301 in CC. (Witten, IL) 9945 at 1230 with trade news. (Northrop, MO)

15400 at 0957. (Gillihan, AR) 13610 Central People's Broadcasting Station (presumed) for 1240 to 1351 fade. All CC, with a couple of U.S. tunes. (Silvi, OH)

COLOMBIA — Radio Nacional, 4955 at 0417 in SS. (Miller, WA)

COSTA RICA — RFP1, 6980 SSB at 0800. (Delfratte, PA) 7385 at 0525. (Foss, AK) 15050 SSB at 1930. (Jeffery, NY)

Radio Exterior de Espana relay, 11815 at 2200 in SS. (Jeffery, NY) Advenist World Radio, 5030 at 0320 in SS with classical music. (Jeffery, NY)

9725 at 1220 with Voice of Prophecy broadcast. (Delfratte, PA) Radio Reloj, 4832 in SS at 1038. (Gillihan, AR)

CROATIA — Croatian Radio on new 9925 heard at 0300–0314 with comment, several clear IDs. (Paszkiewicz, WI)

CUBA — Radio Havana Cuba, 6000 heard at 0454. (Gillihan, AR) 9820 at 0529. (Delfratte, PA) 12000 2nd harmonic at 0410. (Alexander, PA)

CZECH REPUBLIC — Radio Prague, 7345 heard at 0315 and 9595 at 1130. (Delfratte, PA) 9435 at 2237. (Jeffery, NY)

0258 “You are tuned to Radio Prague, the external service of the Czech Republic.” (Miller, WA)

DENMARK — Radio Denmark (via Norway), 13800 at 1330 with station ID and news in DD. (Delfratte, PA)

DOMINICAN REPUBLIC — Radio Cristal Int'l, 5013v at 0014 to 0010 possible sign-off. Much music and occasional SS announce, several clear IDs. (Silvi, OH)

ECUADOR — HCJB, 9745/15295 at 0408, 15140 at 2225 in SS, 17790 at 1826 in unidentified language. (Jeffery, NY) 12005 at 1130. (Gillihan, AR) 21455 USB at 1600. (Silvi, OH) Radio Centro, Ambato, 3289.87 at 1025, continuous SS talk. ID at 1054. (Alexander, PA)

EGYPT — Radio Cairo, 9900 at 2200. (0000 with Egyptian tunes, EE ID and lesson. (Delfratte, PA)

ENGLAND — BBC, 7325 at 0501 with news in AA. (Foss, AK)

FINLAND — Radio Finland Int'l, 11785 at 1517 in FF. (Miller, WA)

FRANCE — Radio France Int'l, 9715 at 2243. (Harris, TX) 11700 at 0749 in FF. (Foss, AK) 21580 at 1620 in FF to Africa. (Silvi, OH)

FRENCH GUIANA — Swiss Radio Int'l relay, 9905 at 0211. (Harris, TN) Radio Japan relay, 11895 at 0420 in SS. (Jeffery, NY)

GAIBON — Africa Number One, 9580 at 2146 in FF. (Miller, WA) Radio France Int'l relay, 15540 at 1225 with news. (Delfratte, PA)

GERMANY — Deutsche Welle/Voice of Germany, 6100 (Foss, AK) 9615 at 2141. (Gillihan, AK) 11810 at 0116. (Witten, IN) 21705 at 1602 in GG/AA. (Silvi, OH)

GREECE — Voice of Greece, 6260 at 0345. also 1560 at 1230. (Delfratte, PA) 11645 at 0758 in Greek. (Foss, AK) VOA relay, 7200 at 0234. (Dyka, TN)

GUAM — KTWR, 9820 at 1203 in unidentified language. (Gillihan, AR) KSDA, 11775 at 2315. (Delfratte, PA)

GUATEMALA — Radio Coman. San Sebastian, 4800 at 1204 in SS. (Miller, WA) Radio Tezulutlan, Coban, 4835 in SS at 1127. (Gillihan, AR)

HAWAII — KWHR, 9930 at 0531 with religion. (Foss, AK) 0815. (Delfratte, PA) 17510 at 0251 and 17555 at 0241. not in parallel. (Jeffery, NY)

HUNGARY — Radio Budapest, 9580 heard at 0102. (Witten, IN) 0215. (Delfratte, PA) 9840 at 2146 in presumed Hungarian. (Gillihan, AR) 11700 at 2121 with news, features, music, ID. Off at 2129. (Jeffery, NY)

INDIA — All India Radio, 11610 at 2100 with news. (Gillihan, AK) 11900 at 0135 to 0200 close. Talk in language and exotic vocals. (Paszkiewicz, WI)

INDONESIA — Voice of Indonesia, Jakarta, 9525 at 1258 with ID by woman, anthem and sign-off at 1300. (Miller, WA) 11785 heard at 0838 sign-on with flute, frequencies, IDs at 0853 and 0859 — “You are listening to the Voice of Indonesia in Jakarta.”

IRAN — VORI, 9022 with music at 0121. (Harris, TN)

IRAQ — Radio Iraq Int'l, 11785 heard at 0250 in EE with current events. ID. AA music. (Paszkiewicz, WI) 2158 at 2251 close. Into EE at 2202 with news, comment, AA pops, anti-American talks. ID. Poor to fair. (Alexander, PA)

IRELAND — Radio 1, Dublin, via relay, 12160 at 2015 with soccer scores, mentions of “Radio One, medium wave.” (Witten, IN)

ISRAEL — Kol Israel, 11885 at 1625 in Hebrew. (Miller, WA) Reshet Bet domestic

THE MONITORING MAGAZINE
service, 9300 at 2208 in HH with music, of 2215. (Jeffery, NY)

ITALY — RA1, 21535 heard at 1545 in presumed to South America, music and then seemingly live sports event. (Silvi, OH)

JAPAN — Radio Japan, 9505 at 0611. (Foss, AK) 9515 at 0230 with IS, ID. (Paszkiewicz, WI) 9835 at 1240 in CC or JJ. Classical music. (Northrup, MO) at 1415

“This is Radio Japan. NHK World Network, Tokyo.” (Delffratte, PA)

JORDAN — Radio Jordan, 11690 at 1500 with DX program. (Miller, WA)

KIRIBATI — Radio Kiribati, 9810 at 0600 in EE with music. (Gentry, PA)

KUWAIT — Radio Kuwait, 9855 at 2238 in AA. (Harris, TN) 11657 at 0304 in AA. (Paszkiewicz, WI)

Liberia — Voice of Liberia, 3450 at 0600. (Harrington, MA) 5470 at 0600 with short chorus, opening announcements. (Paszkiewicz, WI) 0715 with news, ID and station promos. Short breaks of African folk or pop. (Alexander, PA)

LIBYA — Radio Jamahiriya, 15415 at 2242 in AA. (Miller, WA)

MADAGASCAR — Radio Netherlands relay. 9860 at 0124 and 11655 at 0222. (Jeffery, NY) RTV Malagasy, 5009.59 at 0254 sign-on with xylphone IS, anthem, announcements by woman in vernacular, talk, local religious choral music. (Alexander, PA)

MALAYSIA — Radio Malaysia, Sarawak, 7270 heard at 1444, unidentified language. (Miller, WA)

MEXICO — XERTA, 4800.7 at 0105 to past 0300 with SS announcements, rancheras. EE ID at 0204. (Alexander, PA) Radio Educativo, 6185 at 0146 in SS. (Miller, WA)

Mongolia — Voice of Mongolia, 12085 at 1112 in Mongolian; 1230 in EE. (Ziegner, MA) 1200 with “What Happened in Mongolia This Past Week.” (Gentry, PA) 1200–1229 close with EE to Southeast Asia. (Alexander, PA)

MOROCCO — Radio Meden Un, 9575 at 2349 with Middle Eastern music. (Miller, WA) Voice of America relay, 15410 at 1929. (Harris, TN) 2003 with news. (Jeffery, NY)

NEPAL — Radio Nepal Int’l, 9700 at 0804. News was interrupted with special weather bulletin for the Cook Islands. (Dybka, TN) 11905 at 0548. (Foss, AK) 15115 at 2032 with sports. (Miller, WA) 17675 at 0125. (Jeffery, NY)

NETHERLANDS ANTILLES — Radio Netherlands Bonnaire relay, 9715 at 1158 with IS, ID, into SS. (Gillihan, AR) 15315 at 1929. (Jeffery, NY)

NIGERIA — Voice of Nigeria, 7255 at 2010 and 0625. (Alexander, PA) 15120 at 2000 with news. (Gentry, PA) 2012 with commentary. (Paszkiewicz, WI) 2035 with African news. (Miller, WA)

NORTH KOREA — Central People’s Broadcasting Station, 2850 in KK at 1057. YL in KK at 1100. Also 9605 at 0735 in KK. (Foss, AK) Radio Pyongyang, 13790 at 0551 in KK. (Foss, AK)

Norway — Radio Norway Int’l, 7465 heard at 0200 with EE ID, Norwegian news. (Delffratte, PA)

OMAN — Radio Oman, 9735 in AA monitored heard at 2048 with call-in program. (Ziegner, MA)

PAKISTAN — Radio Pakistan, 11570 monitored at 1742 in unidentified language. (Miller, WA)

PARAGUAY — Radio Nacional, 9735 in SS heard at 0037 with political discussion. (Miller, WA)

PERU — Radio Libertad, Junin, 5030.2 0955 in SS with pops, folk, echo announcements, ID. (Alexander, PA) Radio Sudamerica. Cusco, 5522.2 at 0230 to 0238 sign-off. SS talk, folk music, announcements. ID, abrupt off. (Alexander, PA) Radio Huancabamba, 6535.72 at 0015 to 0104 close. OA folk music; SS talks. ID. Off with national anthem. Soft time varies. (Alexander, PA) Radio Huanchaco, 6676 at 0100 in SS. (Gentry, PA) Radio Altura, Cerro de Pasco, 3339.93, 1008 to past 1100 in SS with OA folk music, ID. (Alexander, PA) Radio Huancabamba, 6535 at 0100 in SS. (Gentry, PA) Radio Atlantida, Iquitos, 4790 at 1000 in SS. (Gentry, PA) Radio Oriente, Yurimaguas, 6188 at 1100

in SS. (Gentry, PA) Radio Ancash, Huaraz, 4991 at 0451 in SS. (Miller, WA) Radio Cora, Lima, 4915 in SS at 0731. (Foss, AK)

PHILIPPINES — Radio Filipino, 11890 at 1737 in Tagalog. (Miller, WA) Voice of America relay, 17735 at 2225 and 17820 at 2239. (Jeffery, NY)

PORTUGAL — RDP Internacional. 9570 at 0200 in PP. (Miller, WA)

ROMANIA — Radio Romania, 6155 at 0208 (Paszkiewicz, WI)

RUSSIA — Radio Tikhy Okean, Khabarovsk, 7489 at 1254 with JJ music, IS and sign-off at 0450. (Miller, WA) Magadan Radio, 9530 at 0649 in RR. (Foss, AK) Radio France Int’l, via Irkutsk, 7420 at 0935 in presumed CC. (Dybka, TN) Radio Netherlands Bonaire relay, 9715 at 1158. Also 9665 at 0755 in KK. (Foss, AK) Radio Nederland Bonaire, 9210 at 0940, 9980 via Irkutsk. (Dybka, TN)

RWANDA — Deutsche Welle relay, 9765 at 0202 and 17820 at 1935. (Harris, TN) 21560 at 1606 with GG to Medien. (Silvi, OH)

SINGAPORE — BBC relay to Asia/Pacific, 11955 at 2218. (Jeffery, NY)

SPAIN — Radio Exterior de Espana, 6055 heard at 0030. (Delffratte, PA) 11715 at 1026 in SS. (Gillihan, AR) 15110 at 2220 in SS. (Jeffery, NY)

SRI LANKA — Deutsche Welle relay, 11965 at 0208 in EE. (Paszkiewicz, WI)

SOUTH AFRICA — Channel Africa, 9525 at 0422 with IS, IDs in EE and FF, news in FF. (Jeffery, NY) 15240 at 1833 in FF to close at 1855. (Miller, WA)

SOUTH KOREA — Radio Korea Int’l, 0200 to North America. (Silvi, OH)

SWAZILAND — Trans World Radio. 4775 at 0149 with religious broadcast. (Miller, WA)

SWEDEN — Radio Sweden, 15235/17870 to North America at 1129–1159. 15235 very strong, 1870 very weak. (Silvi, OH)

SWITZERLAND — Swiss Radio Int’l, 9885 heard at 1250 with economic news. (Northrup, MO)

TAHITI — RFO Tahiti, 15170 at 0145 fade in until WYFR sign-on at 0355. Occasional male and female announcers in FF with lots of music including "island" type and U.S. pops.
When seconds count, 
**REACT** needs you...

...to summon help for an injured motorist, an elderly woman trapped in a fire, a trucker stranded in a blizzard, a drowning child!

As a REACT volunteer CB radio monitor you may be the only communications lifeline for someone in serious trouble. You relay messages from those desperate for help to police or other emergency services.

Your REACT Team will also use CB and other radio services to provide safety communications for events like parades, marathons and even balloon races. The fellowship with other REACT members at Team meetings and annual conventions is an added bonus.

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**Cameroon Radio Television**

**CRTC QSL**

**Mr. Gerald Gentry,**

**CRTC**

This is to confirm the receipt of your QSL report of the broadcast from Cameroon Radio Television, CRTC.

We hope that you will continue to contact other short wave radio stations in Cameroon and enjoy their programmes.

Please, inform members of your CS-CLUB for further information.

**CRTC**

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**Thanks to each one of you!**

**Gladstone, Columbia, MO; Bruce Alexander, Mechanicsburg, PA; Bono, AR; Susan Wilden, Indianapolis, IN and Elmer Wallesen, La Grange, IL.**

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**Cameroon Radio and TV sent this QSL sheet to Gerald Gentry in VA. This station is known for making “above and beyond” requests in order to issue a QSL — in this case, $2.**

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**at 2358 to 0000 close. (Miller, WA)**

**VENEZUELA — Radio Nacional, 9540**

at 1300 with IDs and music. (Miller, WA)

**UXE**

**Ecos del Torbes, 4980 at 0806 with country style tunes. Man in Pidgin language, ID. (Paszkiewicz, WI)**

**ZIMBABWE — Zimbabwe Broadcasting Corporation, 5306 at 0425 with talks in EE and language, time checks, commercials. African music. (Paszkiewicz, WI) Presumed this on 3306 at 0425. Reactivated and appears to replace 3396, vernacular. (Alexander, PA)**

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That does it for this time. Raise up a mighty cheer for the following who came through for all of us this time: Tricia Paszkiewicz, Westford, MA; Mike Miller, Issaquah, WA; Lee Silvi, Mentor, OH; Tom Delfratte, Sharpsville, PA; Jill Dybka, Knoxville, TN; Sheryl Paszkiewicz, Manitowoc, WI; Marty Foss, Talkeetna, AK; Richard Foss, Bellefontaine, OH; Patty Foote, Lake Oconee, GA; Bruce Northrup, Gladstone, MO; Bruce Alexander, Mechanicsburg, PA; Joey Gillihan, Bono, AR; Susan Wilden, Indianapolis, IN and Elmer Wallesen, La Grange, IL. Thanks to each one of you!

Until next month, good listening! ■

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**CIRCLE 76 ON READER SERVICE CARD**

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**THE MONITORING MAGAZINE**

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**64 / POPULAR COMMUNICATIONS / August 1998**
In our last column we attempted to make sense of ACARS transmissions by examining the Technical Element Identifiers (TEIs) that make up much of the ACARS traffic we monitor. This month, our column focuses on another common element encountered in all traffic messages—namely Service Message Indicators.

An Service Message Indicator (SMI) is a three-letter code used at the beginning of the Service Message Transmission (SMT) to uniquely identify the type of SMT. Consider the following example:

```
.N321AA 5R 1
F005AA0475#M1AAEPN433524W08021362250370M5729759YAY/0105/370
.N321AA Address: Aircraft Registration Mark: American Airlines Boeing 767
5R Downlink Message Label:
1 Downlink Block Identifier
F005 Message Sequence Number (FMC Avionics Subsystem Downlink)
AA0475 American Airlines 475
#M1A Message originated by Flight Management Computer #1
AEP Fixed ICAO Format Position Report with Weather (SMI Code)
N433524 Current North Position: 43:35.24 degrees
W0802136 Current West position: 80:21:36 degrees
2250 Time over current position 22 hours 50 minutes
370 Flight Level FL370
M57 Outside Air Temperature - Minus 57 Celsius
297 Wind Direction; Blowing from 297 degrees
59 Wind Speed in Knots: 59
YAY Next Position : St. Anthony Nfld VOR
/0105 Time at next position (St. Anthony) 0105
/370 Flight level at next position (St. Anthony) FL370
```

The above transmission contains a very common SMI code “AEP” for an Aircrew-Initiated Position report. If you locate AEP in the table, you will note two entries:

AEP 57 DN Alternate Aircrew Initiated Position Report 5.3.47 S
AEP 5R DN Aircrew Initiated Position Report 5.3.5 A, S

The values 5.3.47 and 5.3.5 identify the ARINC document sections were they are defined. If the SMI “AEP” were used in a message by itself, the message label could be 57 or 5R. The table indicates that message label “57” is only used by SITA for Alternate Aircrew Reports while message label 5R is used by both ARINC and SITA for standard reports.

The following SMIs are approved for use in ground-to-ground, air-to-ground, and ground-to-air operations; flight plans; and meteorological messages. Many airline companies have also defined their own SMIs.

Four major ACARS systems are found throughout the world, each using slightly different message protocols. These are ARINC (A), Air Canada (C), AVICOM Japan (J) and SITA (S) — the system prevalent in Europe. See the legend below.

```
A = ARINC
DN = Downlink
UP = Uplink
G/ G = Ground to Ground
C = AIR CANADA
J = AVICOM, JAPAN
S = SITA
N/A = Not Applicable
```

Note: The two-character sequences Ax and Bx thru BA are designated for ATS applications. These characters are used as labels for ATS messages to/from an ACARS MU, and as Message Function Identifiers (MFIs) for ATS messages to/from an ACARS peripheral.
The table contains a list of SMI Codes with their corresponding UPLINK/DOWNSINK, DESCRIPTION, and SOURCE.

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<tr>
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<td>FMR H1/M2</td>
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</tr>
<tr>
<td>FPL</td>
<td>Filed Flight Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPR</td>
<td>Aircraft-Originated Request for Flight Plan Update via ACARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSM A4</td>
<td>Flight Systems Message</td>
<td>UP</td>
<td></td>
</tr>
<tr>
<td>FTD B7</td>
<td>Free Text to ATC</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>FTU A7</td>
<td>ATC Free Text</td>
<td>UP</td>
<td></td>
</tr>
<tr>
<td>GVR 54</td>
<td>Ground Party Address</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>GVR 54</td>
<td>Voice Go-Ahead</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>HJK 00</td>
<td>Emergency Situation Report (Aircraft Hijack)</td>
<td>UP</td>
<td></td>
</tr>
<tr>
<td>LIF</td>
<td>Ground-Originated Aircraft Load Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M10 to M4 - 10/None to 4-</td>
<td>User Defined Messages (Header)</td>
<td>UD</td>
<td></td>
</tr>
<tr>
<td>MED SA</td>
<td>Media Advisory</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>MNT</td>
<td>Aircraft Maintenance Message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVA M2</td>
<td>IATA Movement Report: Arrival</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>MVA M3</td>
<td>IATA Movement Report: Return to Ramp</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>MVA M4</td>
<td>IATA Movement Report: Return from Airborne</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>MVA M1</td>
<td>IATA Movement Report: Departure</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>MVA M2</td>
<td>User-Defined Messages</td>
<td>DN</td>
<td></td>
</tr>
<tr>
<td>MXx</td>
<td>Miscellaneous User-Defined Message, Where xx is The Label of a User-Defined Function (10- 4-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td>Reserved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 04</td>
<td>General Response (Demand Mode)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 6</td>
<td>Voice Data Channel Changeover Advisory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 5P</td>
<td>Temporary Suspension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 0</td>
<td>Data Transceiver Auto-Tune</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 0Q</td>
<td>Voice Circuit Busy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 0S</td>
<td>Squitter Messages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 0A</td>
<td>Link Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A 0B</td>
<td>User Defined Messages (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/10-N4 - N1/10-H1/4-</td>
<td>Meteorological Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOA H1/None</td>
<td>Optional Auxiliary Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OAT H1/Any</td>
<td>Optional Auxiliary Terminal Message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OAT H1/PS</td>
<td>Keyboard/Display Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OAX H1/Any</td>
<td>Optional Auxiliary Terminal Message (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OAX H1/None</td>
<td>Optional Auxiliary Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAR B6</td>
<td>Provide ADS Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PDM None</td>
<td>Possible Duplicate Message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POS</td>
<td>Position Report Without Weather</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSN None</td>
<td>Aircrew Initiated Position Report With/Without Weather Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QTB None</td>
<td>Incomplete Message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAI 89</td>
<td>Request ATIS Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAR A6</td>
<td>Request ADS Reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCD B3</td>
<td>Request Departure Clearance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCK B1</td>
<td>Request Oceanic Clearance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDO RB</td>
<td>Command Response Downlink</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDO RB- to RB/-4</td>
<td>Command/Response Miscellaneous Message Downlink</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDO None</td>
<td>Out/Return Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RDS B8</td>
<td>Request Departure Slot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REJ HX</td>
<td>Undelivered Uplink Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REM None</td>
<td>Remarks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTN Q5</td>
<td>OUT Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTN Q6</td>
<td>OUT/Return IN Report (IATA Airport Code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDD H1/SD</td>
<td>SDU, Selected (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDL H1/S1</td>
<td>SDU, Left (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDR H1/H2</td>
<td>SDU, Right (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNR S1</td>
<td>Network Statistics Report Request</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPL None</td>
<td>Supplemental Flight Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC None</td>
<td>Communications Service Message</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC CC</td>
<td>Printer in Local or Test Mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC OS</td>
<td>Unable to Deliver Uplink Messages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC CE</td>
<td>Printer Buffer Overrun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC CD</td>
<td>Printer Out of Paper S, J</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC CF</td>
<td>Printer Initialized Before Completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC CA</td>
<td>Communication Service Message, Printer Status Annunciation - Error in Printer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVC CB</td>
<td>Printer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THR None</td>
<td>Aircrew-Originated or Auto-Sensed Takeoff Thrust</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIS None</td>
<td>Automated Terminal Information Service Report (ATIS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TIS S0</td>
<td>ATIS Request</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TT1 - TT8 H1/T1 - H1/T8</td>
<td>Cabin Terminal Messages (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWI AB</td>
<td>Terminal Weather Information for Pilots</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWR RB</td>
<td>Terminal Weather Information for Flights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TX1 - TX8 H1/T1 - H1/T8</td>
<td>Cabin Terminal Messages (No Header)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9 DN</td>
<td>Unassigned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WXM H2</td>
<td>Meteorological Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WKO H1/WO</td>
<td>Weather Observation Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WX SU</td>
<td>Weather Request</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A = Active
S = Standby
U = Unassigned
P = Provisional/Proposal
G = General/Global
J = Japan
C = Canada
A = All
S = Some
E = Equipment
D = Digital
F = Forward
R = Return
The Ham Column

GETTING STARTED AS A RADIO AMATEUR

Traveling With Amateur Radio

Using your handheld 2-meter rig to work your buddies across town is a lot of fun, but taking your radio along on your next cross-country outing will really broaden your radio horizons. You'll enjoy added safety and increased fun, and you're likely to make a bunch of new friends along the way.

But before hitting the road, make sure you know how to use your radio — especially the tricky programming functions you use only occasionally for setting repeater splits and subaudible tones, for example. Brush up on how to power your handheld (from batteries and from your car's cigarette lighter socket) and how to boost its signal using car-mounted antennas, bigger "rubber duckies," and so on. A little extra effort up front will make life on the road a lot easier! And don't forget to review repeater etiquette and procedures, too!

All Set? Here We Go!

While you're traveling, most repeaters you'll use will be on frequencies other than the ones you're used to seeing. How will you know what those frequencies are, and where the repeaters are located? The 1998–1999 ARRL Repeater Directory, a pocket-size reference that's a must-have for traveling VHF and UHF operators, is probably the best single info source (it's available from your favorite amateur radio products dealer or directly from the ARRL). RadioShack's North American Repeater Atlas is also handy.

Accessing repeaters on the road is a lot like using the ones you're familiar with close to home. Common sense will take you far, as will common courtesy. And don't be shy about letting people know you're on the air and traveling through their little corner of the world. Most hams will welcome you to whatever machine you're keying up. The few who won't aren't worth bothering with anyway.

Over-The-Road Radio

If you're not sure how ham radio can make traveling better than ever, try the following activities on for size. Remember: you may make so many new friends along the way, that extra time may be required. You'll also come up with your own activities and procedures once you're underway. Have fun!

Ragchewing: Ham radio's oldest activity is the mainstay of many radio-active travelers. On 2-meters, towns, repeaters, and conversations come and go periodically, depending on local geography and population. There are a lot of interesting people to chat with, that's for sure. With your rig along, you'll meet them for yourself. You'll discuss skydiving, cookie recipes, steam tractors, wild nightclubs — or all the above! Just be sure to coax the "lurkers" into action with your "This is WLXYZ travelin' through" calls on new machines.

Travel Emergencies: This is why many hams carry VHF/UHF radios (or cellular phones) in their cars. The nature of your

Two-Meter Mobiling Tips

- Listen to new repeaters before transmitting. If you have an emergency, however, step right up and key the mic. Often, the machine's voice controller will periodically announce any special operating procedures or events taking place.

- To let people know you're around, simply say, "This is WLXYZ monitoring." Or, while being brief, be a bit more revealing: "This is WLXYZ from Hartford, Connecticut, traveling through Ottumwa on County Road B." Or be specific: "This is WLXYZ. I'm just east of Ottumwa and I'm looking for directions." Ham radio still is a friendly hobby. Don't be afraid to let people know you're interested in chatting.

- Don't kerchunk the repeater! Pause briefly after each transmission to keep the machine clear for emergency traffic.

- If you get a rip-roaring conversation started, move to a simplex frequency, if possible, to free up the repeater for more mobile traffic. In some rural areas, repeaters are almost never busy. If the locals seem content to ragchew on their machine, feel free to follow their lead, remembering to pause after transmissions, of course!
Emergency will determine how you use the local radio systems. If lives are at stake, don’t worry about etiquette: Get in there and grab the mic. Emergency ops have the whole show, so if your need is legitimate, everyone will assist you.

**Asking for Directions:** Although not exactly ragchewing, asking for directions often can whip up a good conversation. Some hams seem to live to dispense travel advice, and somehow they know every nook and cranny of the surrounding countryside. These folks are priceless resources for travelers.

**Eye-to-Eye:** If your cross-country pace is leisurely, on-air ragchews can occasionally lead to face-to-face encounters (called an “eyeball QSO” in some parts). You’ll may be invited to lunch or coffee, or to see someone’s new ultralight airplane, or whatever! In addition to the friends you’ll likely make, these side adventures could be more interesting than your planned destinations, so don’t discount them up front!

**Ham and Eggs?** In many parts of the country, hams get together for a Saturday morning breakfast that’s usually held at a local family restaurant (days and times vary regionally, so ask around). The hour that these group get-togethers commence usually depends on tradition and the average age of those attending: old-timers usually get up early, baby boomers often like to sleep late on weekends. Some Saturday morning groups hang around for stragglers all morning long.

**Flea Markets and Hamfests:** What traveling ham could bypass a hamfest? Certainly not me! The hamfest calendar listings in *CQ Amateur Radio, CQ VHF, or QST* will keep you up-to-date on most hamfests and swap meets. And don’t worry about finding the place: someone will always be able to “talk you in” via repeater or simplex. Ask around for unpublicized events, too. They’re out there!

**Public Service Monitoring:** Many modern FM handhelds receive frequencies outside the 144- or 440-MHz amateur bands. These frequencies often include aeronautical, police, fire, sheriff, trains, public service, federal government, military, and business, among others. Some newer rigs even double as VHF scanners, adding fun to what might otherwise be boring miles. Yet, some states restrict mobile scanners, so be sure to behave yourself appropriately — at least in situations where your radio may be eyed suspiciously by authorities. A run-in with the local authorities won’t improve your travel itinerary!

**Funnel Clouds and Flash Floods:** NOAA weather radio broadcasts on 162.400, 162.475, and 162.550 MHz are run by the National Weather Service. These continuous broadcasts contain weather forecasts, observations, and alerts for whatever area you happen to be traveling through. If your 2-meter rig can receive the NOAA broadcasts, you’ll have a 24-hour “weather channel” along for the ride.

**Hiking and Cycling:** If your travel destinations include more adventurous outdoor activities, your handheld transceiver will more than likely be up to the tasks of emergency and casual communications (and it may help you receive weather alerts). The same considerations apply, although weight and bulk probably will be more important. If your outdoor adventure party includes other hams, having your handheld in your gear makes even more sense.

**A Room with a View:** Elevation and VHF go hand in hand. During your travels you’ll probably come across some type of towering structure, natural or man-made. If you’re going to the top — even if it’s to a hotel room on the 24th floor — take your HT along. See how far it’ll “get out.” If conditions are right (summer is the season), you will be surprised! Be careful: this can be addictive!

This short list of travel activities is far from complete, but I hope you can see that there’s a lot of fun to be had in making your FM rig a mandatory traveling companion. Here’s to the open road — and those open repeaters!

Do you have a topic you’d like to see covered in “The Ham Column”? Send your suggestions, QSL cards, and letters to me c/o Popular Communications, 25 Newbridge Road, Hicksville, NY 11801. I’d like to know what you’re interested in, so don’t be shy!
Greenpeace earned its first fame by sailing into the U.S. atomic test site in the North Pacific, and from the fights it’s engaged in to save the seals and the whales. More recent battles with the French government have earned them greater acknowledgment. Greenpeace’s ships have proved to be an effective ally in Greenpeace protest actions. Indeed, some of these vessels have become known worldwide.

The S/V Rainbow Warrior, callsign PC8024, was inspired by a North American Indian legend which prophesies that when man has destroyed the world through his greed, the Warriors of the Rainbow will arise to save it again. Probably one of the better-known ship names in the fleet, the new Rainbow Warrior replaces the original sunk by the French secret service in 1985. The motor-assisted, three-masted schooner was rebuilt on the hull of the former fishing vessel Grampian Fame, and launched on July 10, 1989, the anniversary of the sinking of her predecessor. Equipped with the latest in electronic navigation, sailing, and communications equipment, she’s an oceangoing vessel intended for assignments in the Pacific. She’s some 555 gross tons.

M/V Sirius, callsign PHNA, is named for the star Sirius, the brightest in the firmament and a positive portent since ancient times. The Sirius, at 380 gross tons, was built to naval specifications at “Boele” shipyard in the Netherlands in 1950 as one of seven pilot vessels owned by the Dutch government. In early May of 1981, the ship was dry-docked in Scheveningen, where a handful of volunteers labored to get the vessel shipshape. In just 10 weeks, volunteers of all ages and from many countries came on board for a few days, or a few weeks, to help out. The ship’s color scheme was changed to a green hull and rainbow colors, and a white dove of peace with an olive branch was painted on the bow. Since 1986, the vessel has operated almost continuously in the Mediterranean, with occasional campaigns in the North Sea. She’s also homeported at Amsterdam, Netherlands.

Another well-known ship of the fleet is the M/V Greenpeace, callsign PC8023, a Dutch-built former deep sea salvage tug of some 905 gross tons, and purchased by Greenpeace in 1985. It was the readied for Antarctica where it has already been six times for campaigns against whaling and the establishment of Greenpeace’s World Park Base. It’s been a very active ship in the Greenpeace fleet, straight from its first involvement in the anti-nuclear
testing demonstration at Moruroa Atoll in 1985, where it had taken over from the Rainbow Warrior. In 1995 the M/V Greenpeace joined the Greenpeace Peace flotilla in French Polynesia to protest the resumption of French nuclear testing in Moruroa and Fangataufa. The ship was logged many times during this campaign by shortwave UTE hobbyists around the world. Besides campaigns, M/V Greenpeace has made several research trips. A helicopter pad was added in 1986.

The 949 gross ton M/V Arctic Sunrise, callsign PCTK, is Greenpeace's latest addition to its fleet. The sea-going motor yacht is the former seismic research vessel Polar Bjorn and is homeported in Amsterdam, Netherlands. A vessel that has spent most of its life in ice regions, it's now been converted to a full-fledged "campaigning" vessel. Towards the end of 1996, the vessel was prepared for its first visit to the Antarctic.

M/V Moby Dick, callsign PC8031, was built in the Netherlands in 1959, and spent 27 years as a fishing vessel before joining Greenpeace. Its weight is some 118 gross tons. Greenpeace bought her in 1986, and, in just two weeks, the organization had her converted to a Greenpeace ship. Sporting her coat of green paint on the hull, the rainbow, and white whale on the bow, the Moby Dick left Hamburg, Germany, for its first campaign on May 31, 1986. Moby Dick operates mainly in the North Sea and in the Baltic although she also spent time in the U.S., campaigning on the Great Lakes, the Mississippi, and in the Gulf of Mexico.

Greenpeace Comms

M/V Beluga, callsign DPJP, is a river ship, and is named for the small white whales that used to appear in European rivers before pollution. The Beluga was built in 1960, and purchased from the City of Bremen, Fire Department, in 1984. She is some 84 gross tons. Greenpeace workers and some 40 volunteers spent over 10,000 hours converting the former inshore fire-fighting patrol boat into a laboratory ship for work in rivers, estuaries, harbors, and coastal waters. Her territory, according to Greenpeace, has been the Rhine, Elbe, Schelde, Weser, Thames, Humber, Tyne, Tees, Mersey, Meuse, and Seine rivers; the Westerschelde and the Waddensee; the coasts of England, Sweden, and Denmark; the Great Lakes, and the Mississippi.

All Greenpeace ship-to-shore communications took place on HF up to 1984, when they started installing their first Inmarsat terminals. A lot of those comms went through station KMC-237. Greenpeace, San Francisco, California, manned by Dick Dillman. The station had been located in his bedroom and comms were in Morse Code (CW). Dick reports the last great HF comms exchange was in 1983 when the (old) M/V Rainbow Warrior landed a crew at a whaling station/mink farm in Siberia and was being chased by the Russian Navy back across the Bering Sea. Everything was on Morse. According to Dick, "I asked the radio op, my friend Lloyd, 'What are your intentions?' He replied, "Our intentions are to proceed to Nome unless fired upon!'" Worldwide press was amazed at the exchange by the "brass pounders." KMC-237 is off the air right now, but may return to the air after some equipment problems are fixed.

Primary traffic today is via satellite, but the ship's radio operators often set up schedules for informal chats. Check the maritime simplex frequencies at the top and bottom of each hour, especially 8297.0 and 12365.0 kHz USB, where they have been logged before. These chats are often in Dutch, but one should be able to make out the callsigns. If there is a major Greenpeace effort going on, it's a good time to look for the vessels involved. Last summer, there was an anti-logging campaign in the forests of British Columbia, but their satellite terminals were useless, as the satellites were too low on the horizon for them to see from the valleys and fjords in which they were operating. Luckily they had sent several Kachina MP-25 portable HF backpack radios to use and had one ICOM IC-707 100-watt radio for a base. Plus, there was the HF radio on the M/V Moby Dick, the vessel on scene. With this equipment they were able to communicate.

To QSL Greenpeace ships, send requests to: (name of ship), Greenpeace Marine Services, Attn: Tim Gortner, Keizersgracht 176, Amsterdam 1016DW, Netherlands. Good hunting!

More UTE News

Lucky Navy fans were treated to two Joint Task Force Exercises recently: one on the west coast and one on the east. More than 16,000 sailors, marines, airmen, and reservists participated in a major exercise April 13 through 24 off the Southern California Coast in Pacific Joint

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**USAF B-2A SPIRIT Serial Numbers and Names**

82-1066 DEVELOPMENT AIR VEHICLE 1  
82-1067 DEVELOPMENT AIR VEHICLE 2  
82-1068 SPIRIT OF NEW YORK (FORMER DEVELOPMENT AIR VEHICLE 3)  
82-1069 DEVELOPMENT AIR VEHICLE 4  
82-1070 SPIRIT OF OHIO (FORMER DEVELOPMENT AIR VEHICLE 5)  
82-1071 SPIRIT OF ARIZONA (FORMER DEVELOPMENT AIR VEHICLE 6)  
88-0328 SPIRIT OF TEXAS  
88-0329 SPIRIT OF MISSOURI  
88-0330 SPIRIT OF CALIFORNIA  
88-0331 SPIRIT OF SOUTH CAROLINA  
88-0332 SPIRIT OF WASHINGTON  
89-0127 SPIRIT OF KANSAS  
89-0128 SPIRIT OF NEBRASKA  
89-0129 SPIRIT OF GEORGIA  
90-0040 SPIRIT OF HAWAII  
90-0041 SPIRIT OF ALASKA  
92-0700 SPIRIT OF OKLAHOMA  
93-1085 SPIRIT OF FLORIDA  
93-1086 SPIRIT OF KITTY HAWK  
93-1087 SPIRIT OF PENNSYLVANIA  
93-1088 SPIRIT OF LOUISIANA

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**Table 1. List of B-2A names compiled by Dave Wright**

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Task Force Exercise 98-1 (PAC JTFEX 98-1). This 3rd Fleet exercise involved more than 25 ships, and various types of fixed-wing aircraft and helicopters from the USS Abraham Lincoln (CVN-72) Carrier Battle Group (CVBG) and the USS Essex (LHD-2) Amphibious Ready Group (ARG). PAC JTFEX 98-1 is the final training evaluation that certifies the forces for deployment to the Arabian Gulf this summer. On the east coast, we had JTFEX 98-2 for the Atlantic Fleet involving the USS Dwight D. Eisenhower CVBG prior to their deployment to Mediterranean Sea/Arabian Gulf area. Both were heard here in Ohio, providing a rare behind-the-scenes look at these realistic scenarios.

In other events reported by the Navy News Service (NNS), the newest Seawolf-class nuclear submarine was named the Jimmy Carter (SSN-23). The sub is scheduled to join the fleet in the year 2001. Beginning May 29, the USS Nimitz (CVN-68) will undergo a 33-month overhaul that includes alterations, repairs, maintenance, and refueling of her nuclear reactors. So it may be a while before she is logged again. Astute UTE fans will recall that she and the USS Nimitz were "the stars" of the movie "The Final Countdown" a few years back. Oh yes, Martin Sheen and Kirk Douglas were in the movie, too . . . hi! The newly commissioned Arleigh Burke-class aegis missile destroyer USS McFaul (DDG-74) arrived at her new homeport of Naval Station Norfolk on April 30. McFaul was commissioned in Savannah, Georgia, April 25. The ship is named in honor of Chief Engineman (SEAL) Donald L. McFaul, who was killed during Operation "Just Cause," which drove Panamanian dictator Manuel Noriega from power. No word yet on a callsign. The USS Reid (FFG-30), homeported in San Diego, began her eighth and final deployment April 23. Reid will conduct counter-narcotics operations in international waters in the Eastern Pacific in a joint effort with the U.S. Coast Guard under direction of Joint Interagency Task Force West. So you can soon cross her off your lists.

The Air Force News Service is reporting that the legendary SR-71 Blackbird, a pioneer in reconnaissance aircraft, will be "permanently retired from Air Force operations." The Air Force currently owns six SR-71 reconnaissance aircraft. Two SR-71A operational models were brought back to active duty in 1995 at the direction of Congress; two, including the SR-71B trainer model, are on loan to NASA for their high-altitude testing program; and two remain in returnable storage. It looks like the NASA birds will be the last chance to log a SR-71. Also, the Air Force has officially accepted the first of two C-38A aircraft. The C-38A, tail No. 94-1569, will be based at Andrews Air Force Base, Maryland, where the C-38A will replace the C-21. Because of its specialized electronics, the C-38A can assist in command, control, and communications in time of disaster or war.

During the first attempt to launch the space shuttle on STS-90, some new frequencies were passed. The frequencies that would have been used were 4708.4 (range safety) and 5718.4 (booster recovery) as passed along by Cape Radio on 10780.0 kHz. This is an interesting departure from previously used frequencies that almost uniquely ended in "0" rather than an offset.

Sad news from the PCH. Scheveningen Radio, Holland, Web site at <http://home.pip.net/~tdpch/schevrad.htm>. According to information there, the historic maritime station will close on January 1, 1999.

Reader Mail

Dan Ramos (California) has the possible solution to Mike Scott's mystery reported in the April, 1998, column. Normal CB with voice transmissions are Class "D." Dan thinks what Mike heard was a station transmitting on a Class "C" CB channel. Class C allows for remote control airplanes and paging, but no voice or music. The Class C frequencies are scattered throughout the Class D channels and are 27.045, 27.095, 27.145, 27.195, and 26.995 MHz. Scott's walkie-talkies probably weren't very selective, and hence his receiving of what sounded like a paging station. The newer CB was probably more selective. There you have it.

Thanks Dan!

Table 1 is a list of B-2 bomber tail numbers and their corresponding names provided by Dave Wright (Texas). Most of the B-2 "Spirits" are named after a state.

Alan Gale tells us that the new 1998 edition of the RAF Handbook just came out, with lots of the usual good information plus a very informative four-page article about the new ARCC at Kinloss. This book explains why Alan has heard "Kinloss Primary" and Kinloss "Alternative" a few months ago. It seems they built a second control center just a short distance from the main one with everything duplicated in case of a major failure. The article contains a nice shot of the control room and assets, but gives the bad news that a future plan is to communicate with SAR helos via satellite data bursts. Alan also reports that there seems to have been a change in callsigns for some of the UK SAR helos over the past month. The 22 Squadron now seems to be using "SRG" instead of "SRD" prefixes, though one or two pilots seem to still use the old ones out of habit. Some other unusual calls have been heard, such as SRG 34, SRD 040, and SRG 09, but Alan is still attempting to work out what these all are.

It looks like all active SAR helos are now just going to be SRG, with SRD possibly replacing some of the SMG calls (training and HQ flights). It also appears that the German "Papa Charlie" prefixes are not allocated in any particular daily order, but rather on an "as needed" basis. The Swedes are using three different prefixes: Hotel, Yankee, and Quebe. When the "Hotel" prefixes are on air, all communications are in English only, while the others are usually just Swedish, but with the occasional bit of English used. The Norwegians and Germans seem to use mainly English, but will sometimes switch to local languages for long messages. The German operators will say in English "now in the German language" before changing.

Finally, RTE-1, the state broadcaster of the Irish Republic, has a weekly program dedicated to Marine matters, called
“Seascapes.” This is broadcast at 2030 UTC every Thursday, and often features regular pieces from IMES (Irish Maritime Emergency Service), RNLI (Royal National Lifeboat Organization), and the Commissioners, or Irish Lights. The good news, for those with Internet access, is that details of this program (and back episodes!) are available in Real Audio from RTE’s Web site at: <http://www.rte.ie/radio/index.html>. Also, the latest Marine news from the “Airlite” Teletext pages can be found at: <http://www.rte.ie/aerlite/p384.htm>. Alan also noted an interesting item on last week’s program which said that IMES would become the Irish Coastguard later this year.

Jeffrey S. Austin is now doing the QSLs for the U.S. Coast Guard, CAMSLANT Chesapeake, VA, NNN. You can receive a QSL card from CAMSLANT by sending a report via regular post to: U.S. Coast Guard CAMSLANT, 4720 Mile Post Road, Chesapeake, VA 23322-4202. USA, ATTN: TC3 Jeffrey S. Austin or via e-mail at: <qsl/camslan@internet.uscg.mil>. Jeffrey suggests readers also check out their Web page at: <http://www.uscg.mil/lantarea/camslant/index.htm>.

Now, on with the show...

UTE Logging’s SSB/CW/DIGITAL

206: NDB LR, Las Cruces, nightly. (BF)
251: “SV,” new NDB at the Silver City, NM airport at 0300, used to be identified as SVC in powerful AM at 1500. Also noted on 3250-6400 kHz. (TY)
2118: MV Stefania I at 0200 in USB wkg Sydney CG Radio, Canada, re collision w/deliberate barge, vsl enrt back homeport. (RK)
2182: M/V Mayday at 0854 fm SV Pooh Grew (55 ft yacht) re vsl taking on water near the Bahamas. USCG Group Moriches (NY) responds & tells Skipper how to fix pump. Pump is repaired but can’t fix leak. Group Moriches notifies Key West Group & all QSY 5966 at 1000. Key West adv cutter was enrt along with helo to hoist crew. USCG Southwest Harbor Group at 0128 clg USCGC Adak no joy. MAYDAY fm FV Alaska King at 0400, vsl had run aground on underwater reef & raised Constsl Kodiac & USCG Adak Group, posn 55-42N/176-55E. Ship was breaking up. CG helo later rescued all on board. M/T Emerald Star vsl CCG vsl Terry Fox, crew member of tanker wanted to talk to his brother aboard the Terry Fox which was going on arctic patrol. Hrd at 0450. All in USB. (RK)
2357.5: OUA32, Danish Navy Aarhus, DNK at 2159 in CW w/VV marker. (AB)
2391: PIUM, mv Idselsborg at 2304 w/nv Flinterzijl (PEEC), req change to 2420 kHz. PCUN, mv Arrow, at 0001 w/nv Emmaplein. Both in USB. (AB)
2591: ARCHITECT at 0320 in USB w/aero wx, mostly unreadable in ORN. (AWH)
2592: IPL, Livorno Radio, at 2156 in USB w/nav wng. (AB)
2656: IPA, Ancona Radio, at 2151 in USB w/nav wng. (AB)
2688.5: OUA32, Danish Navy Aarhus, DNK at 2150 in USB, tape w/psn rpt in USB at 0746. (HOOD)
3016: Tokyo Volmet w/avion wx info in USB at 0746. (HOOD)
3212.9: Russian Air Defense, RUS heard at 1745. Also noted on 5230, 7605 kHz. (TY)
3698: Cuban Aeronc spook in at 1200 in AM w/SGFs already in progress. (AWH)
3810: HD2IOA, TS Guayaquil, Ecuador at 0800 in AM w/time pips & ann. in SS, first time I’ve heard it in several years. (J)
4015: USCG Comm Sta New Orleans, La at 1149 in USB clg WOX, norep. (AWH) (a new CG freq for me — Ed.)
4040: Unid tactical comms, U.S. (Navy?) at 1355 in USB w/3E wkg 5B re setting up radios. (AWH)
4073: Und “time” station at 2315 in CW, transmits time in UTC+4. Is one minute ahead of UTC+7. (AB)
4178: Fishing vsl ADVANCED FISHERMAN at 0752 wkg Bern Radio w/psn rpt in USB at 0746. (HOOD)
4182: Fishing vsl ADVANCED FISHERMAN at 0752 wkg Bern Radio w/psn rpt in USB at 0746. (HOOD)
4235: Vessel v/psn 5N 0800 in AM w/time pips & ann. in SS, first time I’ve heard it in several years. (J)
4311: Fishing vsl ADVANCED FISHERMAN at 0752 wkg Bern Radio w/psn rpt in USB at 0746. (HOOD)
4395: FOXTROT WHISKEY, Air Defense Warning (ADW) net for PAC JTFEX (Pacific Joint Fleet Exercise) 98-1 at 0218 in USB w/psn rpt in USB at 0746. (HOOD)
4447: Russian Navy single letter HF CW marker at 1634, where is the “R” on this? (TY)
4575: “V” (Khiva) Russian single letter HF CW marker at 1322. (TY)

Another member of the Greenpeace fleet is the MY Greenpeace, seen here after installation of an aft helo pad in 1986. (Photos courtesy Greenpeace)
late '80s & early '90s primarily for passport checks, now seems to be only for use setting up RTTY codes. (II) 5307: Cuba’s "5689" type net 1215-1500ish in USB, brief SS/OM OSO, at 1350 check had 4FG tic read by man using cardinal numbers. At 1358 running Russian vocoder w/accounpanying digital 100/170 key stream. lots to say, maybe numbers. Telco hum between transmissions. (AWH) 5320: USCG Group Ft. Macon at 1215 wkg CG41425, assumed radio guard, in Gulf of Mexico. (AWH)CG41 foot patrol boat, rare catch on HT — Ed.) RESCUE 2100. USCG HU-25B at 0318 clg for radio check. (DW) Both in USB 5322: FD12, French Air Force Narbonne. F in 2017 in CW w/VVVM marker. (AB) 5377: 12B & 14, New Zealand Army at 2135 in USB w/radio checks & logistical msgs. (II) 5411: USS Eisenhower Battle Group at 0100 to 0200 in USB, using phonetic alphabet call-signs (i.e. KILO, FOXTROT, CHARLIE, etc.), traffic concerned course/speed duration, data links, & when certain call-signs would go multi freq. (RM) 5422: 14, Papeete Radio, Tahiti in USB. Also noted on 6485, 6494 kHz. (TY) 5435: ART2, Mossad, Israel, hrd in USB at 1800. (TY) 5550: New York Radio at 0212 in USB w/various Seletal checks, KINGSAIR 1960, FORCE 427 & CHINA 217, along w/LIFEGUARD were among flights checking in. (SW) (Lifeguard is an air ambulance on a medical mission call-sign, not common on HT — Ed.) 5637: Cuba, EMPRESA FINAL wkg OCTAVO CUARTO 1400, also Babbler w/short counts. (AWH) 5680: Echo Sierra (Irish helo El-MES) at 1316 clg Malin Radio (IRL), SRG 123 at 1145 in r/check w/Kinloss (G). SRG 122 at 1133 wkg Kinloss. Navy 703 at 1219 in r/check w/Kinloss. "Bullseye Formation" at 1416 wkg Kinloss. Wessex & Puma helos enrt from Liverpool to Aldergrove rqt r/watch. St. Anthony's CG Radio at 2324 w/est cnt. Foxtrot 97 (RAF Puma) at 1425 clg Kinloss for r/watch, ent from EGAS (RAF Shawbury) to EGAFA, Belfast Aldergrove. Kinloss Rescue at 1057 wkg Magic 98. Stuff 95 then clg Magic 98 to ask if he could assist. R123 at 1126 clg Magic 98, QSY 376.8 kHz. (MG) 5699: Rescue 115 (Irish S-61N helo) monitored at 1652 in USB clg Kinloss Rescue (G) for r/check. (AG) 5709: VDE, Enigma ID M29 numbers station. at 1902 in CW w/VVVM DE VDE & SFG. (AB) 5714: Caught tail end of RAF "Architect" msg in USB at 0332. (HF) 5718: Cape Radio net at 1354 in USB w/boster vsl Freedom Star wkg Dol Cape, carrier on 1717, another net on 4708.4 for STS-90 launch support. (AWH) 5746: Lincolnshire Poacher in USB at 2200, also noted on 9251, 6951 kHz. (TY) 5836: Poss phone link Papua New Guinea/ Solomon Islands monitored at 0800 in USB, YL w/recorded msg "Please speak after the tone." (U) 5881: TELESTRA Katherine, NT, Australia at 0700 in USB, YL w/phone call. (IJ) 5885: North Korean numbers sts (R. Pyongyang) hrd in AM at 1000. Also noted on 4770 khz. (TY) 5929: Christian Radio Missionary Fellowship Station, Papua New Guinea at 0900 in USB w/general chit-chat. (II) 5938: Unid French Forces at 2355 in ARQ-E 192/400, too weak to lock, maybe Corsican link. New freq for me. (AWH) 6200: NRRI, USCCG Laurel (WLB-291) heard at 1919 in USB wkg CAMSLANT (on 6501) re new HFDL (High Freq Data Link) frequency. (Ed.) 6245: U.S. tactical w/IPECASS at 1430 to 1530 on, frequent a/c talk info as typical "IPECASS (UPDATE/HOSTILE/FRIENDLY) TRACK NUMBER 2201 F43 30 HEADING 098 ANGELS 25," DEUCE on frequency also. (AWH) 6253.5: Cayfish boats around New Zealand at 2330 in USB w/rt re setting up cray pots,
confirming it's RFLIG to RFLI.

(DW) Same at 0205 w/5LG msg on C.I. "RTI"
0521 in ARQ-E3 192/300 idling, presumed id.

7643.3: RFLIG, French Forces Cayenne at
THE MONITORING MAGAZINE at 1252 a constant beep beep. (CT)
in USB clg 382, 1234567890 count, I noticed
7547: The Counting Station // 10529 at 1300
7038.9: "C," Russian Navy Moscow, RUS at
7038.8: "P," Russian Navy Kaliningrad, RUS
ter HF CW marker at 1326. (TY)
7002: "V" (Khiva)-Russian Navy single let-
0725 w/comms in a Pacific Island language.

SIGONELLA - Kinloss Rescue, G. (AG) (USN a/c of VR-24,
6901: Executive 1 Foxtoy wkg Andrews in
USB w/FAX 120/576 chart. (DW)
7900: ZME, Joint W/DOC Station, Raoul
Island, the Kermadecs at 2145 in USB, the link to
NZ was left open for over 24 hours & a
recorded msg was continually playing "This
is the Counting message the person you're clg
does not wish to be disturbed at the present
time. Please call again later." (JI)

8014: The CIA counting stn hrd in AM at
1500. Also noted on 9274 kHz. (TY)
8026: Executive 1 Foxtoy wkg Andrews in
USB at 0257, heavy interference & data so
they QSY to F-005 (9120) at 0258 & then back
to 6993 (F-117) at 0259. (FH)
8062: Unid Cuban net at 1420 in USB w/600
w/kg, 371, 350, 379, 446, sounds like fixed
net rather than Air Force which has appeared
here rarely. (AWH)

8157: SRR Cuba testing at 1355 on, test tones
up to 1400 into EE/OM voice (not usual
woman) "989" repeated, some cracking on
audio. Some 5FG tfc also including call-up for
567 19 at 1406. (AWH)
8279: 9HVG4, Volgabalt 1451, wkg Helsinki
in USB at 2000 w/CW VVV CQ 747.077 & 5FG. (AB)
8303.5: LOR, Argentine Navy, Puerto
Belgrano, Argentina at 0735 in RTTY 75/850
w/5LGs, then went into a long msg in SS about
various Terrorist organizations, and that the
Argentine Armed Forces National Police were
on alert due to a prediction made by an
American Clairvoyant that there would be
armed intervention in Brazil in the next 25
hours. Nothing happened. (IJ)
8320: Cherry Ripe at 1200 in USB w/47717
ID. 5FG's. (CT)
8398.5: Swedish vehicle carrier "Rigoletto"
(c/s SFMN) w/ETA for Seenbank pilots via
Global's Goeteborg Radio tuned in ARQ at
1653.

8401.5: Russian fishing vsl "Forecheck" (c/s
UHFQ) sending arrival msg to Faroe Islands
 thru UIW, Kaliningrad Radio using 50Bd
RTTY at 0725. (HOOD)
8453: HWN, French Navy Paris, F monitored
at 1320 in RTTY 75/850 test tape to FAA (general
call). (AB)
8540: RUF9, Tenrykky, Radio, RUS, sending
new navs (NAVGP) in RR CW heard at 1708,
then QSG 8343 to be called by UGUX at
1716. (HOOD)
8682: NMC, USCG CAMSLANT Point Reyes,
Ca, USA monitored at 1513 w/FAX 120/576
w/chart. (DW)
8752.5: CCM, Colombian Navy, Magallanes,
Chile at 0625 in RTTY 100/425 w/SLGs. (L)
8761: LF w/ann "Govorit Novorossiysk"
Radio" in USB at 1743. (HOOD)
8764: NMN, USCG CAMSLANT
Chesapeake, VA heard at 2017 in USB w/kg
USCCG Forward (WMEC-911) w freq reg
CRATT. (Ed.)
8806: Monaco Radio w/ID in USB at 0731 &
passing sea w/tx to FQFY "Grand Bleu III"
(all in FF), this was a St Lys channel. (HOOD)
8819: Alma-Aty Meteo, KAZ at 2315 w/
Vomol bucast. At 2320, Tashkent Meteo,
UZB w/Vomol. Both in USB. (AB)
8852: Fijian Military Forces at 0610 in USB
w/kg in Fijian. (JI)
8861: Irunisk Volmet, Russia, w/avian wx
info in RR in USB at 0925. (TY)
8921: Qantas DOC, Sydney, NSW, AUS at
0540 in USB w/QRs 48 for a radio ck. (L)
8939: "GG." NDB Moscow. RUS at 2013 in
CW, operates on 290 kHz, but audible on
Volmet freq. "TQ." NDB Moscow. RUS at
0520 in CW, operates on 468 kHz, but audible
here. (AB)
8942: Manila Air Radio w/kg Japan 710 in
USB at 1733. (HOOD)
8957: Shalmon Volmet, Ireland, w/avian wx
info in EE at 1630 in faint USB. Also noted on
13264 kHz. First time I’ve hrd European
Volmet this year. (TY)
8968: BLUE STAR (P3 op's NAS Roose
Roads) w/kg LIQUIFY. GOLDFISH, PASS-
PORT and PONY w/voice & ANDVT comms
at 1830 in USB. (RK) (maybe they thought
they were on 8971?, but GHFS stns were con-
fused — Ed.)
8971: U.S. Navy net at 1436 in USN
w/Rockfish 08 w/kg E0?, req go green &
into ANDVT comms, also SHADOW 31 on
freq. (AWH) WOLF2 w/kg BLUESTAR at
0325, then into green for radio check. (FH)
BLUESTAR w/FALCON 01 at 0710 req close
down. (IJ) BIG BAD WOLF, as NCS w/kg
SIDECAR. GOLDOLOCKS & SKUNK 02
w/voice & data from 0030 to 0042 in USB.
(AB) SIDECAR is the Canadian NORAD
0901.6: USCG New Orleans at 0735 in USB clg unid CG cutter couldn't get the name, then switched to ANDVYT. (I.I)
0916: AUTHORIZE clg NIGHTWATCH 01 in USB at 0335 in USB no joy, then tries DEERSIGN at 0354 again...no joy. (HF)
0918: SHADOW 91 wkg SHADOW 92 in USB at 0140 looking for the tankers, typical refueling chatter. (HF)
0922: JJ04, presumed Japanese Navy std seen heard at 0930 in USB w/3 November Papa X-ray in J & EE w/radio cks. The Japanese SDF used to use 9021 as one of their freqs for comm's w/their patrol a/c up until four years ago, the a/c would always sign as "Japan Navy **" then. (I.I)
0923: COURAGEOUS WARRIOR clg OKIE SAM at 1224 w/no reply, also clg RELENTLESS. (AWH) SIDE CAR, Canadian NORAD SOCC at 1451 wkg ZSU. (DW) Both in USB.
0979.7: RFQP, French Forces, Djibouti at 0124 in ARQ-E3 100/342 bd. (AB) Both in USB.
0985: Unid North Korean Diplo at 2155 on RTTY 50/1000 w/SFG, then quickly off, back w/CW fills on 9187. (AWH)
10046: 4XZ, Haifa, Israel, w/V marker in powerful CW at 1710. (TY)
10051: Gander Radio Volmet at 1159 in USB w/VN Radio following at 2000. (SW)
10075: Delta 8655 at 1543 in USB wkg Houston Radio for sc check: EL-82. (AB)
10720: YBU FARPSI Station tuned at 0930 in RTTY 75/500 w/RVYR. 1/11 NZU & 5LGs. (I.I)
10780: Cape Radio at 1120 in USB clg USS Philippine Sea during 2nd att of launch of STS-90. (Ed.)
10869.3: RFVI, French Forces Reunion at 2135 in ARQ-E3 100/400 w/CdV on ckt "RUN." (AWH)
11021: Ansett Airlines LDOC, Melbourne, VIC, AUS at 0005 in USB, "Dispatch" w/VH-HYT, a A320-211 Airbus. Was inbound Darwin from Brisbane trying to find a passenger's missing cell phone onboard. Afterwards Dispatch called ANSETT 869 w/a request from ATF they change to 128.2 (I.I)
11030: AXM3, Melbourne Motoe, AUS at 1519 w/FAX 120/576 wx chart. (DW)
11175: REACH 9501, USAF C-17, at 1545 wkq MacDill w/pp to FURIOUS, SOUTHCOM AMC Theater Airlift Control, 9501's tail number is 96-0007. (DW) BOOMER 94 wkq Offutt w/pp BOOMER Op's at 0115 re IFE (in US Navy enemy on board strike on wind- shield, permission granted to divert to Grand Forks AFB. (RK) Both in USB.
11181: PATCOM 01 wkq Thule w/pp "Stanley Field op's" (Falklands?) at 0107 in USB, re has priority cargo on board, Stanley adv will hold all air traffic. (RK) (probably PACOM 01, w/C/CINCPAC Comm-in-Chief Pacific Command) aboard Ed.)
11201: RED DOG wkq BOOKSHELF in USB at 0317, one unit adv has "smoke in the cockpit" & will have to return." At 0317 KADS 63 (maybe Scads?) is wkq RED DOG adv is on the ground at Ft. Smith. (HF)
11214: LIGHTFALL wkq ASHES w/signal ck at 0107 in USB (RK)
11279: Thilisi Volmet ID & wx by YL heard at 1200. Aktyubinsk Volmet ID w/xy by YL at 1205 all in RR &. (HOOD) Tashkent Volmet, UZB, w/avian wx info in RR at 1230. (TY) Both in USB.
11279: "PK" NDB St.Petersburg, RUS at 1405 in CW, operates on 342 kHz, audible via St.Petersburg Meteo. (AB)
11490: WAR-46, Alternate National Military Communications ID, at 1857 in USB clg NIGHTWATCH 01 no joy. At 1904, NIGHTWATCH 01 clg MARIGOLD on Z205, no joy, then wkq WAR-46. (DW)
11565: EZI2, Mossad, Israel, std in USB at 1530. Also noted on 15353 kHz. (TY)
12056: Cherry Ripe at 2000 in USB w/Cherry Ripe tune, 33842 ID, SFG's. (CT)
12196: "MIG," Russian FAPSI, Lourdes, Cuba at 2300 w/RTTY 75/500 RYTO to "WFO," then 5LG's on link 0013. (Ed.)
12201: Air Europe 749 wkq Stockholm Radio for private pp to Italy in USB at 0740. (HOOD)
12269: Russian vsl "Aleksandr Popov," c/s UDUN, clg 9AR, Rijeka Radio, for USB pp at 1708. This is a cargo and training vsl owned by the Volgofanker Co. (HOOD)
12272.5: Russian trawler "Sovetskaya Kraya" of unknown port is unknown at this time, have been instructed to maintain course & speed. (AB)
12356: IFE (In Flt Emer) due to bird strike on wind- tail number is 96-0007. (DW) BOOMER 94 wkq Offutt w/pp BOOMER Op's at 0115 re IFE (in US Navy enemy on board strike on wind- shield, permission granted to divert to Grand Forks AFB. (RK) Both in USB.
12387.8: Cuban MFA net at 2000 in Packet 300/200 w/or ORAR & NORA. NORA sent "act" command tx, ORAR responded w/ SFG tlc. Haven't heard them since. (AWH)
14402: AATJ3USP, unid Army deployed 14402: AATJ3USP, unid Army deployed MARS std at 2343 in USB wkq AAR3CB. USA MARS std, for pp ttc. (Ed.)
14451.7: Egyptian MFA (tent) at 1750 in ARQ w/carrier staying on & alternating mark- space between packets, ATU80 text. (AWH)
14469: Cherry Ripe in USB at 1100. Also noted on 9263, 13386 kHz. (TY)
14681: VSG, MFA Bucharest. ROU at 1235 in ROU-PEC 164bd, Radiograma circulara to many embassies. (AB)
14708: HUTANG at 1625 in USB wkq "HOME OFFICE" re is underway from Anchorage, heading towards rendezvous point. At 1634, ENDIAR wkq HOME OFFICE re their cargo is to be taken into port as to destination port. At 1640, adv have been diverted to "Country of Green," w/o member of the boarding party onboard. USN comms (maritime interdiction) related to JTFEX off of California. (DH)
14753: Spook std "Boris Badanov" at 1236, OM/EW w/SFGs, fair sig but low audio, flux- tury. (AWH)
14823: FAPSI, SUS at 1430 in RTTY 75bd clg OPO, 11177 01900 00000 25232 01091 & SFG's. (AB)
14890: GXX, Portside Air, G at 2115 in USB passing wx to Western 940. (I.I)
15013: Navy JM69 at 1322 in USB wkq Kinloss Resort (G). (AG)
15021: MacDill at 1533 wkg ADMQ, USAV Fort Donovan (LCU-2019). (DW) LOOK 35 (RC-135, 55th Wng, Offutt AFB) wkq Offutt GHF's re landing wx. (RK) Both in USB.
15064: Cherry Ripe in USB at 1000. Also noted on 17499, 10452 kHz. (TY)
15804: Poland? Unid std at 1900 to 1918 in POL-ARQ 100/100, mostly beta idle, at 1905 Polish text, at 1908 "KONIEC" & idle to 1918. (AWH)
16101: HBD20, Swiss MFA Berne, SWZ at 1240 ARQ w/SLG vs to HBD46, Havana, Cuba. (Ed.)
16198: CIA Counting Station at 2345 in USB, YL w/numbers. (I.I)
16322: "C" (Moscow), "P" (Kalininglad), "S" (Arkhangelsk) — single letter HF CW mark- space between packets, ATU80 text. (AWH)
13505: AA6USA, US Army MARS Ft. Sam Houston, TX at 1557 in PACKET 300/200 w/or ATSTM. US Army MARS Sta. (DW)
13533: EZI2, Mossad, Israel, std in USB at 1530. Also noted on 11565 kHz. (TY)
13550: ZKLF, Auckland Motoe, AUS at 1507 w/FAX 120/576 wx chart. (DW)
13587:8: Cuban MFA net at 2000 in Packet 300/200 w/or ORAR & NORA. NORA sent "act" command tx, ORAR responded w/ SFG tlc. Haven't heard them since. (AWH)
14402: AATJ3USP, unid Army deployed MARS std at 2343 in USB wkq AAR3CB. USA MARS std, for pp ttc. (Ed.)
This month's contributors are: (AB) Ary Boender, The Netherlands; (AG) Alan Gale, UK; (AWH) Albert W. Hussein, FL; (BF) Bill Farley, NM; (BS) Bill Smith, GA; (CT) Clarence Thompson, TX; (HF) Harry J. Ferguson, Pa; (HOOD) Robin Hood, UK; (IJ) Ian Julian, New Zealand; (RK) Richard Klingman, NY; (RM) Roland R. "Mac" McCormick III, GA; (SW) Sue Weilden, IN; (TY) Takashi Yanaguchi, Nagasaki, Japan; and (Ed.) ye editor in Ohio. Thanks to all.

Tuning In
(from page 4)

NOAA weather radio, wouldn't you? And what about the general availability — or perhaps more accurately, unavailability — of SAME-equipped consumer NOAA-type weather radios? I'm told by NOAA that RadioShack is currently the only manufacturer of the new receivers. So, here we are in 1998, at a time when vehicle passenger and side airbags are becoming commonplace, lifesaving medical scans detect pre-cancerous tumors, "black boxes" for vehicles are being developed to speed emergency help to accident scenes, GPS receivers guide us through unfamiliar territory, and computers are being installed in every school room around the country. But what good is it if we haven't spent $40 on shoes?

For More Information

For questions about the NOAA network, contact: National Oceanic and Atmospheric Administration, National Weather Service, 1325 East-West Highway, Silver Spring, Maryland 20910. Also check out their Web site at <http://www.nws.noaa.gov/nwr>.

For information on the technical aspects of the network, please write: NWR Program Manager, National Weather Service, 1325 East-West Highway, Silver Spring, MD 20910.

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Until this day, I had always avoided things which could sting me, because “a hundred-million hornets” had once stung me repeatedly on the back of my neck when I was very young. Somehow I thought this was the day to overcome my fear of wasps the way I’d overcome my fear of heights the way a professional wasp-herder would, the way I’d overcome my fear of wasps the way I’d overcome my fear of wasps the way I’d overcome my fear of wasps the way I’d overcome my fear of wasps

Eventually, “the sting led the paralyzed” back to the center of the roof where I licked my wounds, and Dave’s motor functions returned. We climbed down the iron ladders to some stairs and a first-aid kit from which all but the four-by-four gauze pads and adhesive tape had been made-off with. Sensing my pain, Dave dragged me into an elevator to the commissary kitchen where he pointed to the wide-eyed cook, not from our culture, looked at me and asked, “You gonna eat his arm?” We eventually made up some ammonia-water for my arm and a grain of meat-tenderizer. The wide-eyed cook, not from our culture, looked at me and asked, “You gonna eat his arm?” We eventually made up some ammonia-water for my arm and a grain of meat-tenderizer.
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