

# POPULAR COMMUNICATIONS

APRIL 2001

## Bay of Pigs Radio War Secret Documents Released

### Deciphering Aircraft Comms Page 20

02 C0380328 2202 2104  
MR. DAVID J. STEARNS KCODDA  
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**new Two-in-One ICOM's R-3 Handheld  
TV AND Scanner! Page 12**



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### Passport To World Band Radio 2001 *New Edition*

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### World Radio TV Handbook 2001 *New Edition*

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### Pirate Radio *By A. Yoder With audio CD!*

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# TUNING IN

An Editorial

## A Questionable Variety Of Charges

**B**race yourselves, for what I'm about to tell you this month — while only momentarily funny, is far from laughable, really. It's actually very sad, indeed. (And no, it's not news of a new "Dummies" book on pronunciation by Mr. Bush; it's worse, if that's possible). Worse, because it could happen to you or me. And as Mr. Bush might say, worse yet because neither you nor I have tons of spare change for major legal bills.

Amateur operator, Tony Petersen, N7QVC, of Idaho has a personal Website, N7QVC.com. You're ahead of me already! You guessed it, just like today you'd better not open a diner called McDonalds even if your name is Marty McDonald, lest the hamburger giant grill you to perfection over an open flame. (Or is that Burger King?), Tony nearly got broiled by the TV giant.

The letter he received from QVC attorney, Stanley Macel (Scm@cblhlaw.com) charged a copyright violation, saying, "Our client is the owner by assignment of a number of United States Certificates of Registration for the well-known mark QVC. These marks are among our client's most valuable assets and must be protected against infringements and other misuses.

Your unauthorized use of N7QVC.COM is an infringement of the QVC marks.

That is, your use of N7QVC.COM is likely to cause the public to believe that you are sponsored or approved in some way by our client. In addition, your use of N7QVC.COM constitutes false advertising, because it misrepresents the nature, characteristics, qualities, and origin of your commercial activities. Your use of N7QVC.COM also dilutes the distinctiveness of our client's well-known marks. This likelihood of confusion, false advertising, and dilution makes you liable for damages and subject to be enjoined under the Federal Trademark Act, 15 U.S.C. §1051 et seq.

Furthermore, a bad faith intent to profit from the registration of N7QVC.COM makes you liable for statutory damages in an amount of up to \$100,000 under the Anticybersquatting Consumer Protection Act of 1999.

Our client, therefore, demands that you immediately cancel and delete the registration

for N7QVC.COM and permanently refrain from any use of any imitation of the QVC mark.

If we do not hear from you by January 31, 2001, that you will immediately comply with our client's demand, we will not hesitate to take appropriate action to prevent your continued unauthorized use of the above-mentioned domain name." (It was signed, Stanley C. Macel, III Esquire, Connolly Bove Lodge & Hutz LLP, 1220 Market Street, P.O. Box 2207, Wilmington, DE 19899).

Pretty nasty letter, don't you think? Tony thought so, and told me, "It was all pretty frightening, especially reading about a possible \$100,000 penalty."

We all know I'm not a regular on The Practice, but it doesn't take a Perry Mason — or legal mumbo-jumbo — to determine that common sense should prevail, and Tony, like many other hams with similar callsigns, isn't infringing on corporate America. Of course there's no guarantee today that it will, but since Petersen holds an FCC-assigned callsign and wasn't selling lipstick and facial hair removal cream on his Website, it seems to me a foregone conclusion that QVC is full of corporate cream of some sort.

Tony politely sent Mr. Macel a note saying, "This is my Amateur radio callsign. What would you like me to do? I in no way say anywhere on my pages that I'm affiliated or connected with the QVC Shopper channel."

After receiving more than a *couple* of letters and E-mails, the now egg-faced QVC Network did an abrupt about face and isn't pursuing the matter, saying in a reply to Tony, "Thank you for your reply to my correspondence of 1/4/01. I understand that N7QVC is your FCC-authorized callsign and that you have integrated the same callsign into the domain name for your personal Website.

However, as I am sure you can understand, many others with less pure motives have appropriated the letters QVC and used them in connection with Websites that do engage in commercial activities. Indeed, some of these activities are so offensive that every precaution is taken to protect QVC customers from inadvertent visitation of those sites. In

*(Continued on page 54)*

## POPULAR COMMUNICATIONS

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BY HAROLD ORT, N2RLL, SSB-596

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Whether you're a hobbyist wishing to go beyond regular voice communications or a professional who does wireless video security or counter-surveillance - nothing else comes close to the 'R3 in price or versatility. Clearly, the IC-R3 represents a quantum leap in monitoring technology.



#### There are plenty of video signals out there to monitor.

- 902-928 MHz: Part 15 video equipment; "VCR Rabbits" & wireless security cameras
- 1990-2110 MHz: Auxiliary broadcasting, Cable television, Domestic public fixed.  
*Heavily used by TV broadcasters for one way transmission services such as: portable van & helicopter mounted transmissions from remote news events; studio-to-transmitter links; and, intercity relay of video programming.*
- 2150-2162 MHz: Omni-directional transmission of point to multipoint video signals.
- 2400-2450 MHz: Part 15 video equipment, most notably the Wavecom units

Frequencies courtesy of Scanning USA, Feb. 2001 -Something new to monitor, by Tom Filecco

0.5-2450 MHz! • 450 Memory Channels with Alphanumeric Names • CTCSS with Tone Scan • 4 Level Attenuator • Telescoping Antenna with BNC Connector • Four Way Actor Joystick • Lithium Ion Power • and a 2" Color TFT Display with Video/Audio Output

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**ICOM**

# Bay Of Pigs Radio War Revealed

Newly Declassified CIA Documents Detail The Anti-Castro Onslaught

By Jon Elliston

Forty years ago this month, in April 1961, the Central Intelligence Agency staged its most daring and disastrous covert operation: the Bay of Pigs invasion. The CIA struck revolutionary Cuba on multiple fronts, including the radio spectrum. Previously released records on the Bay of Pigs operation gave hints about the "massive propaganda offensive" approved by President Eisenhower and continued by the Kennedy administration, but hid essential parts of the program behind heavy deletions.

Now the full story can be told. The CIA's early anti-Castro radio war recently came out of the shadows, when the National Archives and the John F. Kennedy Presidential Library declassified long-withheld documents. The paper trail describing the Bay of Pigs propaganda blitz offers a wealth of secrets from

the CIA's most intense radio war, and reveals that the broadcasting campaign was broader and more sophisticated than previously thought.

## Radio Swan At War

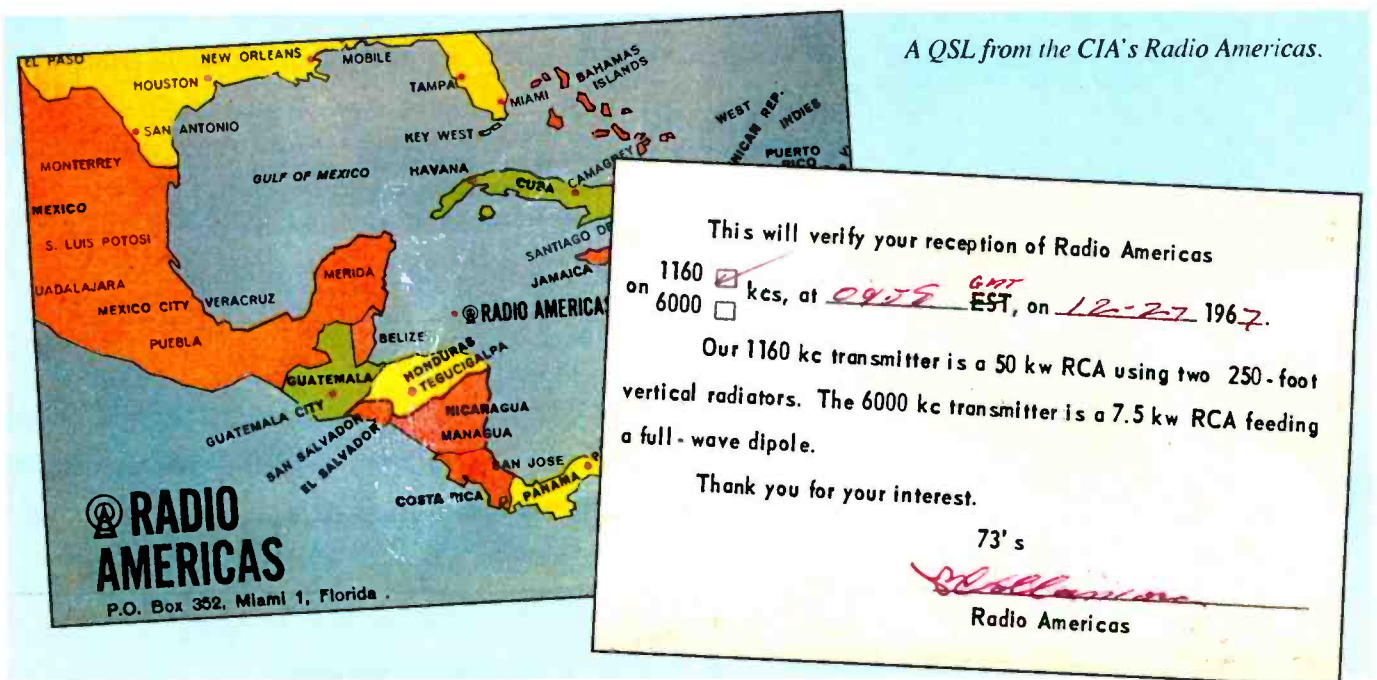
The CIA's flagship anti-Castro station, Radio Swan, made its first broadcast on May 17, 1960. Broadcasting from tiny Swan Island, 90 miles off the coast of Honduras, the CIA planned for the station to be the "major voice of opposition" to Castro, as it was described in official planning papers.

Radio Swan has gone down in the history books as one of the CIA's most ambitious (and notorious) psywar projects. A classic covert radio operation, the station was operated under the cover of the Gibraltar Steamship Company, a CIA front. The CIA gave selected anti-Castro

exiles program slots on the station, which "effectively reached not only its target audience of Cuba, but the entire Caribbean as well," according to a declassified after-action report prepared by the agency, titled "Brief History of Radio Swan."

The document explained that Radio Swan took extraordinary measures to become a tactical weapon during the "action phase" of the amphibious invasion. Six weeks before the CIA's 1,300 Cuban exile troops hit the beach, the agency terminated its regular program producers, spokesmen from the deeply divided factions within the Miami exile community, and introduced "a new, over-all programming schedule — more broadcasting hours than before — which was implacably under CIA control."

"During the military action in Cuba," the report noted, "Radio Swan was used in





tactical support of the strike force, as well as a means of communication to independent agents within the country." Along the way, the station was a source of some of the most blatant misinformation ploys of the anti-Castro crusade. Its broadcasts claimed that "Castro's forces are surrendering in droves" and that Fidel's brother, Raul, had committed suicide.

The station "was an important factor in presenting the desired picture of the fighting in Cuba to world opinion," the CIA claimed. But as the exiled invaders met a quick and ignoble defeat, so did Radio Swan's credibility.

## CIA And USIA

The CIA wasn't the only agency bar-ra-aging Cuban airwaves. The Voice of America (VOA) played an important support role with its broadcasts, which were openly supported through the U.S. Information Agency.

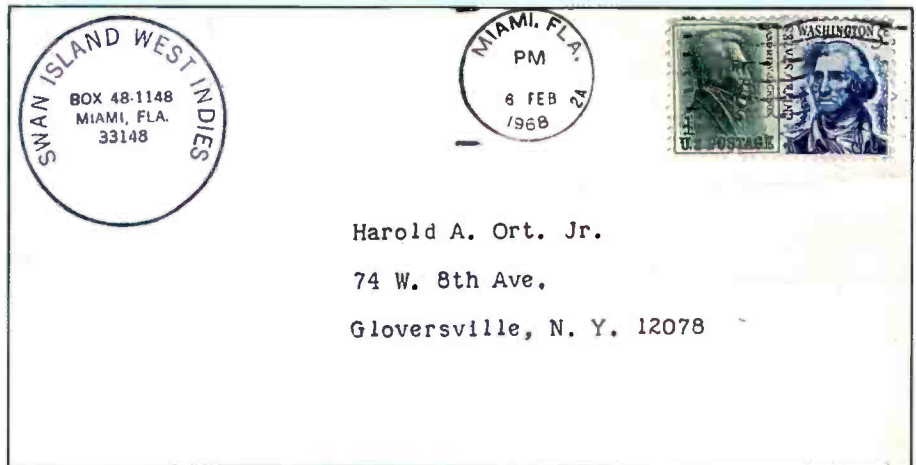
In secret strategy sessions, David Atlee Phillips, the CIA's chief of anti-Castro propaganda, and Henry Loomis, VOA director, laid the groundwork for the radio war and agreed on a "division of labor" to separate the overt and covert components of the campaign. In a newly declassified debriefing report, Phillips described a meeting with Loomis in late March, 1960, a week after President Eisenhower approved operations against Castro.

"The general understanding that developed at that meeting was that we faced a problem where we had to create propaganda which at times would have to descend to the level of Castro's propaganda in order to be effective." Phillips remembered. To get the job done, the CIA sponsored strident broadcasts by Cuban exiles and the VOA relayed the Washington's more measured denunciations of Castro.

In the year preceding the Bay of Pigs invasion, Loomis escalated broadcasting to and about Cuba in concert with the CIA's efforts, dramatically extending the reach of mainland U.S. stations in this hemisphere. In a February 1961 memo, Loomis reported that the USIA was blasting Cuba and its neighbors with a dozen powerful short-wave broadcasts. "In addition," Loomis noted, "we place roughly 400 hours a day on some 1,500 local stations in Latin America."

## CIA's Domestic Network

The VOA also provided the CIA with valuable radio intelligence. Loomis



*The mailing envelope with clear postmark for Swan Island.*

explained in his pre-invasion report that a year after Castro seized power, "a VOA technical monitor toured the entire island of Cuba and obtained complete and accurate data on both medium and short wave reception, city-by-city."

Radio Swan reached most of Cuba, but Phillips decided that "a single station was not sufficient for the task," as he explained in his memoir, *The Night Watch*. The VOA's research helped him select a network of U.S.-based stations that were powerful enough to reach Cuban listeners with CIA programming. The stations, which included WRUL in Boston, WGBS and WMIE in Miami, and WKWF in Key West, reached another important audience, noted one CIA document, which said these programs were also used "to inject rumors into [the] Miami Cuban population."

## Cuban Freedom Committee

The Cuban Freedom Committee produced most of the programs on the CIA's radio network, a front group created and financed by the agency. To further the appearance that the radio programs were a private project, the group placed ads in U.S. newspapers soliciting donations from the public. One that appeared in the November 29, 1960, *Wall Street Journal* led with a bold headline: "HOW YOU CAN HELP DRIVE COMMUNISM FROM CUBA."

In fact, the Cuban Freedom Committee never needed help from the public, as it was bolstered by generous CIA subsidies. The budget for its first year of operations was \$900,000, according to CIA records,

which state that the committee raised a mere \$330 in its first fundraising campaign. Most of its programs were produced at Radio Swan studios in Miami, and then disseminated on tape to the stations in the CIA's network.

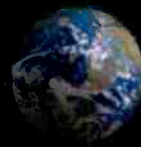
## CIA's Foreign Network

In his post-operation debriefing, David Phillips cited his "responsibility for carrying on anti-Castro propaganda throughout Latin America" and explained how he internationalized the radio war. By the time of the invasion, Phillips reported, the CIA was producing "programs on tapes made by Cuban exiles which are air expressed to about 40 stations in five countries around the Caribbean."

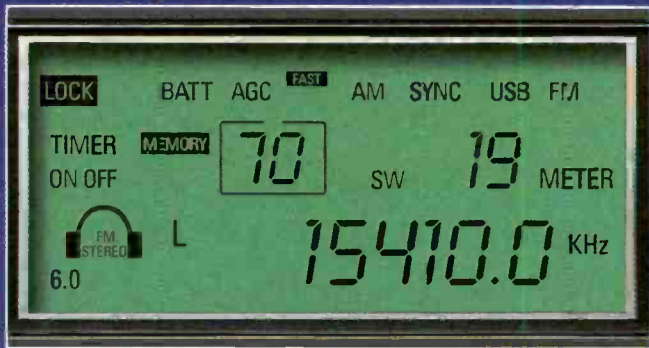
The foreign radio conduits were described in detail in a 12-page CIA document prepared shortly before the invasion, titled "Propaganda Plan in Support of Military Forces (D-day Until the Fall of the Castro Regime)." Every night, the plan says, Radio Progreso in Venezuela broadcast an anti-Castro program prepared by local CIA agents. "The program pretends to originate from a boat at sea, but is actually taped in Caracas," the document said. In Honduras, a CIA agent ran another short wave program targeting Cuba, using a transmitter purchased by the agency. In Guatemala, the agency covertly hired a commercial station to carry short and mediumwave broadcasts supporting the invasion.

"So, what it boils down to is that on the morning after D-day, a person in Cuba could have picked up, by utilizing both medium and short wave, literally dozens of radio stations which were bringing in

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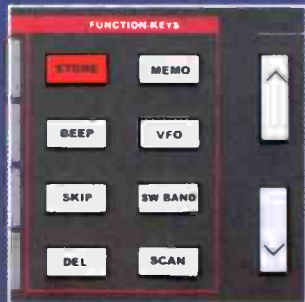
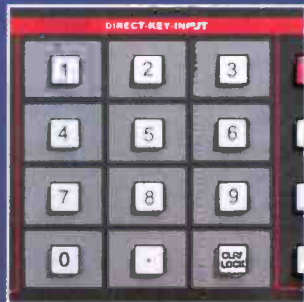
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~~TOP SECRET~~  
SECRET  
Brief History of Radio Swan

See [redacted] 47  
Version: 10/2-76-139  
Downgraded to  
Confidential  
17 3/11/11  
4/1/11

CONFIDENTIAL  
TOP SECRET

1. On 17 March 1960, President Eisenhower approved a covert action program to bring about the replacement of the Castro regime. Within the propaganda framework of that program, an important objective was to create and utilize a high-powered medium and short wave radio station. CIA was asked to provide such a station, outside the continental limits of the United States, and have it ready for operation within sixty (60) days.

2. Swan Island, in the Caribbean, was chosen as an appropriate site. The United States Navy furnished CIA with splendid support: within sixty days, equipment had been brought from Europe, a landing strip was cleared on the island, and the station was able to go on the air on 17 May of the same year, precisely on schedule.

3. Originally it was planned that Radio Swan would be a clandestine station (utilizing a "classified missile and space project" as cover). Just prior to inauguration, however, it was decided the station should be a commercial one. This was at the request of the Navy, which reasonably argued that should their participation in construction of a black facility be known, explanations would be difficult.

4. Using a "commercial" station for the tactical and strategic tasks envisaged for Radio Swan is not, of course, the most desirable way to support a covert operation. The only practical method of operation is to "sell space". Thus, program time on Radio Swan was sold to various Cuban groups. These included organizations of workers, students, women, two publications in exile, two radio

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with the other for "scoops". As time passed and the Cubans found

that their source of information were no better fellows, the program producers began to exaggerate. They give their broadcasts a touch of sensationalism. Comments which were obvious lies to the listeners. One of the announcers stated that there were 3,000 in Santiago de Cuba -- the residents had only to see that this was untrue. Moreover, the year to defy coordination. All programs but one told man that he would be a hero on the day that he. The sole exception told the Cuban militiaman to regardless of what he did. A prolonged effort exert tighter control over the programs. The called a meeting of all program producers and 30 propaganda points upon which they were all use in broadcasts. This action failed to achieve

7. As this unfortunate situation developed, operation was about to be launched. It was not allowed uncoordinated programming to continue. Attempted to provide tactical support to military of March 1961 each program producer received a message from Radio Swan informing him of the terms. Broadcasting was not suspended. Rather, it was with a new, overall programming schedule--more than before--which was implacably under CIA control. Immediately began hourly news programs of a Radio Swan. Thus Radio Swan was converted in

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stations in exile, and several political groups. There were also programs created and controlled by CIA. Programs (on tape) were produced in New York, Miami, and later, on Swan Island.

5. Radio Swan effectively reached not only its target area of Cuba, but the entire Caribbean as well. Soon after broadcasts began Castro started jamming, but was successful in hindering reception only in the City of Havana. Scores of letters were received from all parts of Cuba to show that the station had listeners. As late as March 1961, a survey was made to determine the extent of listening coverage. An inexpensive ballpoint pen was offered to those listeners who would write in to the station. The reply was immediate: almost 3,000 letters from 26 countries. This barrage of mail included significant amounts from all parts of Cuba.

6. As Radio Swan progressed, it became the symbol of the anti-Castro effort within Cuba and of opposition to Castro throughout the hemisphere. Toward the end of 1960, the effectiveness of Radio Swan began to diminish. Although great numbers of Cubans still listened

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provided the Cuban people with straight news as well as a program which stated its only function was to assist those who were fighting Castro within Cuba. This was the beginning of an intensified propaganda campaign directed against Castro. Within a few days after the change, Radio Mambi, a Cuban government station, said to its listeners, "the hysterical parrots of Radio Swan have recently raised their voices

parations by Radio Mambi,

over another radio  
tempts to destroy the  
Cuban newspaper, at  
our enemies are  
points in our dome-

Radio Swan was used in  
a means of communi-  
Radio Swan was  
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9. When it became obvious that the main attack on Cuba had been unsuccessful, Radio Swan deliberately anticipated Castro's victory statement by admitting that the Cuban Expeditionary Force had been stopped by Communist armament, but that many of the Freedom Fighters had been able to join resistance groups in the hills. Radio Swan then returned to a calm presentation of straight world news and over a period of one week changed from round-the-clock broadcasting to a normal schedule, avoiding all program content designed to incite the Cuban people. The producer of the consolidated program was instructed to present programs with a minimum of emotional content, but to continue the anti-Castro orientation through the selection of news items. At the present time, Radio Swan is broadcasting simultaneously over medium and short wave daily from 0500 to 0600, from 1230 to 1400, and from 1800 to 0015 (E.S.T.). The broadcasts are made up of hourly news, a CIA-produced consolidated Cuban program, and other commercial programs including the relay of WML's Cuba Unity Program. The clandestine Vox del Escambray still broadcasts at irregular intervals to keep up hope among the forces in opposition to Castro. Neither during nor after the strike phase has there been any criticism of Radio Swan from any country other than Cuba and the United States.

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SECRET

[CIA-prepared] news of what was happening," Phillips recalled. Castro's forces quickly crushed the CIA's invasion, but the agency's propaganda got through to its target audience.

## Voice Of The Escambray

One CIA radio outlet stood apart from the others in a unique way: It claimed to operate within Cuba. During the invasion, the agency used a separate Swan Island transmitter to broadcast the Voice of the Escambray, a clandestine station that claimed to operate from a rebel camp in a Cuban mountain range.

When it became clear that the CIA's exile brigade would be snuffed out by Castro's forces, the agency issued a statement in the name of the main anti-Castro front group, the Cuban Revolutionary Council, declaring that all was not lost. The landings had simply been the "first phase of their military operation," the statement claimed. "This phase involved the successful establishment of guerrilla troops in the Escambray mountains."

A CIA report noted that the Voice of the Escambray then "bolstered the propaganda theme that at least some of the survivors of the strike force successfully reached the safe haven of the Escambray mountains." In fact, none of them did.

## Boat-based Broadcasts

The CIA ran at least two anti-Castro radio projects from boats circling Cuba. One carried a mediumwave transmitter. Its role was described in the CIA's propaganda action plan: "Broadcasts will operate off Havana in initial days of the invasion. Once a reasonably denied area is obtained, it will go into a nearby cove or inlet and broadcast as an instrument of the rebel forces. Chief value here is the ability of the boat to move up and down the coast according to military needs."

Tony Varona, one of the exile leaders chosen by the CIA to head the anti-Castro movement, operated Radio Independiente, a shortwave transmission from a yacht. The station "broadcasts three times a day with messages directed to official [Cuban] military listeners," said a CIA summary.

## Clandestines In Cuba

While the Voice of the Escambray fraudulently claimed an indigenous origin, at least one of the CIA's anti-Castro broadcasts actually did strike from with-

in Cuba. Details about the operation are few, but a report written shortly before the invasion noted that a CIA operative "now provides a unique clandestine broadcast in the city of Havana, using a mobile transmitter to project voice messages through dormant TV channels."

The CIA also planned to infiltrate radio teams equipped with transmitters into Cuba for "broadcasting truly clandestine programs by D-Day." The invasion brigade brought along a mobile transmitter, but the ship that carried the equipment and Cuban fighter planes sank other much-needed communications gear as it approached the Bay of Pigs.

## Post-Invasion Propaganda

The CIA's Cuban exile invaders met disastrous defeat at the Bay of Pigs; almost all were killed or captured. But the CIA continued its multifaceted radio war. "We still have our mechanisms and our primary effort at this time is to try to convey to the Cubans the idea that they should not give up hope, that all is not lost," David Phillips explained shortly after the invasion.

Radio Swan, discredited because of its operational role in the exile landings, underwent a facelift and became Radio Americas, which the CIA continued to operate until 1968. The station remained just one among many in the anti-Castro chorus. A November 1961 CIA briefing paper noted that the agency was placing "anti-Castro radio programs on some 60 Latin American stations and three stations in Florida."

The propaganda apparatus expanded further in 1962, when the Kennedy administration launched its second major Cuba project, Operation Mongoose. Brig. Gen. Edward Lansdale, the operational commander, was a psywar enthusiast, and he mandated the use of "all media" in the campaign, with a continued emphasis on broadcasting. A brand new tactic was then added to the anti-Castro arsenal. The CIA transmitted the "Voice of Free Cuba," a clandestine claiming to originate on the island, from a U.S. Navy submarine in the waters off Cuba.

Operation Mongoose, of course, failed to prompt an anti-Castro uprising, just as the Bay of Pigs propaganda had failed. In a scathing report on the Bay of Pigs debacle, CIA Inspector General Lyman Kirkpatrick faulted the mission planners for misreading the extent of anti-Castro sentiments in Cuba; perhaps the agency fell victim to its own misinformation. Kirkpatrick did offer some praise for Phillips' "well-qualified" staff. "Propaganda activity had gotten off to an early start and developed rapidly," he noted. In one part of its Cuban operations, at least, the CIA could claim some success: the agency built a massive and multifaceted propaganda machine to combat Castro. ■

*Editor's note: Elliston is author of *Psywar on Cuba: The Declassified History of U.S. Anti-Castro Propaganda* (Ocean Press, 1999), and a staff writer for *The Independent Weekly* in Durham, N.C.*

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BY KEN REISS <Armadillo1@aol.com>

The first thing that comes out of your mouth when you see the new ICOM R-3 is WOW. And the second thing is "why didn't somebody think of this sooner?" At a street price of \$499, it's not a lightweight purchase, but may prove a highly-desirable radio receiver nonetheless.

In case you've been hiding under a rock for the last six months, the R-3 is a new handheld from ICOM with the most notable feature — a TV screen on the top half of the radio. If you've been reading *PopComm* for any length of time, you've seen the ads. The receiver has been available for some time and we've put it through its paces here in the *PopComm* Scanner Testing Facility (my car, mostly).

It has one of the clearest TV pictures I've ever seen on a portable color display. That fact alone is impressive, but the display can be used for other things related to scanning too. It's like having a scanner with a functional and useful TV built in. Much of my evaluation took place during the presidential election and subsequent mess that became the major news event for so many weeks. Having a portable TV handy was extremely convenient.

The display has many functions, depending on the mode and frequency range you're operating in. The display simply does not operate at all below 30 MHz as it has no real function there, and probably would generate noise in the HF portion of the band. There is an LCD numeric display which can be used in any mode and provides essential information on HF and VHF if the main screen is turned off.

Above 30 MHz, however, there are several display modes that are quite convenient. The "Simple Screen" shows frequency and tuning step, as well as the operating mode and a skip indicator. It also displays memory number and the alpha tag (6 characters) while in memory mode. This is the basic screen for operation in scanner mode.

The "multi-function screen" displays all this information plus indicators of signal strength (a very useful feature on a handheld) and volume setting on a graphic bar. There is also a "band scope screen" which shows the signal strength of frequencies on either side up to 500 kHz wide. Many people like this feature on a handheld receiver although I question how useful it really is with the limited bandwidth. It does, however, look really cool.

Finally, there is a "direction finding screen." This is really a signal strength vs. time plot of the s-meter. By using a directional antenna you could determine where the strongest signal was coming from, although you could do



*The R3 in TV mode. Note the smaller LCD display showing the TV mode and Channel 4 (That's KMOV, here in St. Louis). The smaller LCD can be used in all modes to show limited information and preserve battery life. You can even listen to TV audio with no picture if you prefer.*



*The memory display includes the alpha tag display, but unfortunately the battery life is reduced with the LCD turned on.*



Here's the full data screen display showing frequency, signal strength, volume, and other settings. It's easy to read!



Here's the handscope display showing activity on a few neighboring channels.

that with the regular S-meter display. It's not a feature I will use often, but it's there.

## Two TV Modes

When the R-3 first began to ship, there was some confusion about where and when the TV screen would operate in a TV mode. The answer is that it will operate anywhere in its frequency range in the TV mode (above 30 MHz) but there are a couple of restrictions. Actually, the restrictions are more like modes of operation.

You can use the TV mode and simply flip channels. You can also use the TV frequency mode and enter a TV frequency directly. This is the mode that will allow

TV reception anywhere there is a signal. Many have postulated that it might be possible to intercept wireless cameras used in racing or other sporting events, or possibly wireless security cameras. In reality, these cameras are very low power and would require the receiver to be pretty close for TV reception, but I suppose it is possible. I haven't been close enough to any wireless cameras to try it out and see what the range really might be.

Finally, there's the Amateur TV mode. This mode does have definite frequencies for operation (900-1300 MHz and 2250-2450.095 MHz). This mode uses FM TV (regular broadcast television is AM) and there are 50 memories available for storage of active frequencies in your area.

## Scanning With The R-3

As a scanner, which is our primary purpose, it's quite capable. There are a few

limitations in the U.S. version, however, which might be a roadblock for some. For starters, instead of the usual cellular frequency blocks being deleted from the coverage, the entire 816 to 902 MHz range is missing. That means that you will not even be able to listen to the public safety systems that operate in the 850-860 range.

Outside of this gap, the R-3 features wideband coverage from 495 kHz to 2450 MHz and 450 Memory channels in 8 banks of 50. The final 50 are scan edge memories for "programmed scan" and search ranges. In a unique twist, you can scan all of the banks, or one of the banks, but not a combination of banks. There is a memory skip function, which operates like lockouts so that if you choose to scan all the banks, you can at least exclude certain memories. I found myself using it in the single bank mode so that I was scanning only local frequencies depending on where I was located in the city. I use this



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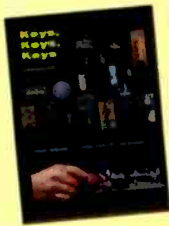


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The final mode is the signal strength vs. time plot. Here, a strong station was transmitting and then stopped, so it's strong signal strength bars are scrolling off to the right.

method quite often with other handhelds and so I was quite happy with it, but if you organize your banks differently, you may find some planning required to make it work for you.

There were a few instances of overload on the VHF and UHF ranges. Fortunately, most of the frequencies in these ranges also use tone squelch, and the R-3 is also equipped with a great CTCSS tone squelch mode that took care of the interference. However, it does not include DCS, the digital counterpart, which is coming into increased use in some areas so it may present a problem for users in high-density RF areas.

The other thing missing is a keyboard. You may remember that the R-2, ICOM's pocket-sized receiver, does not have a keyboard either and I didn't find that to be objectionable. However on the R-3, there were a few times when I think one would have been better. Computer software is available for upload and download of memories, which may eliminate this concern.

Short of a keyboard, the R-3 could have used a few more keys. Many keys on the R-3 have many functions depending on what other keys are pressed at the time and how long the whole thing is pressed. As a case in point, pushing the V/M key and releasing it immediately puts you into the VFO or Memory mode. However, pushing this key for one-second gets a beep and allows you to select a memory channel for writing or clearing. Pushing

the same key for two seconds allows you to actually write the information into the selected memory. And pushing this button with the function key down has three more functions depending on what mode of operation you're in at the time.

I did find that once I had worked with the receiver for a few days I learned the more common functions and was able to navigate quite easily. ICOM includes a "cheat sheet" in the back of the manual designed to be cut out and folded, and I suspect that this would be good advice — at least until you get familiar with the radio. In all fairness, I almost never operate one radio exclusively for any length of time and perhaps had a harder time with some of the intricate functions than I would have under normal circumstances.

## The R-3 Bottom Line

This receiver wins the way cool award hands down. However, I can see that it might not be a good choice for everyone. I don't think I would be happy with it for my only scanner, for instance. As a second receiver, or as a way to combine a personal TV and scanner, it's an excellent combination, particularly given that in my location, trunking is not a major factor, and the CTCSS tone squelch is quite useful.

Computer software to program memories would also be a highly-desirable accessory. ICOM has released an application and cable, which are available, but I have not tested them at this time. At least one third party application is also under development, so the radio should be supported quite well.

Battery life is a factor for some too. With the LCD TV screen on, it runs about two hours with the supplied rechargeable battery pack. Switching to AA batteries (which is your option) shortens the life considerably. With the LCD off, it runs for quite a while longer, however, and in scanner mode, this works just fine. There is an AC charger/adaptor supplied for use when you're near an outlet, and a cigarette lighter adapter available for use in the car. Either adapter recharges the battery pack, so it's quite convenient.

Look carefully at this radio if you find its features of interest. You may find an excellent and useful friend, or it may not quite live up to your specific requirements. If you like the features, and can live within its capabilities, you'll get many hours of enjoyment from this receiver. I certainly have. ■



# THE RADIO CONNECTION

A Look Behind The Dials

## When A Good Tube Goes Bad

I've been told that bad luck is visited upon us in three's. Thus, if one thing goes wrong, you can expect a myriad of unexpected and unwanted disasters to follow in its wake. In my efforts to keep old superstitions alive the recent run of bad luck continues onward here at the "Radio Connection" digs. I'm working on round two this month. My computer crashed, taking along with it my entire store of previous and upcoming "Radio Connection" document files, archived letters, a bevy of digital photos, and important E-mail correspondence and E-mail addresses from many of you. Yes, I lost the E-mail from those who originally asked about the MK484 chips.

The new pile of parts destined to be my new computer has been ordered and assembled — a really fast AMD Athlon 750 MHz processor and motherboard (accompanied by lots of memory, a pretty new box, and a really, really, big hard-drive, etc.), have all been assembled into a no-expense-barred-the-column-must-go-on-sort-of-exercise. Well, the new computer doesn't work for more than two minutes at a time before crashing, so I've been relegated to doing this column on a miserable laptop with its painfully tiny keyboard and equally horrid teeny display screen.

### Tube Getters

Last month's letter from reader John Caruso, W2JAC, raised these issues about conventional wisdom and tuber getters. "Some stories say: 1) The silver flashing will continue to capture residual air during tube use; 2) The tube is no good if the silver getter is cloudy or absent; 3) The silver flashing will repel stray electrons during operation; 4) If the silver flashing is cloudy, the tube life will be very limited."

We know that vacuum tubes rely on a very high vacuum to work properly. Mechanical pumps develop the initial vacuum, and once the tube is sealed the final and highest vacuum level is reached when the getter is fired capturing any remaining



*Don with his crystal set, chasing DX in his backyard. Don looks as if he is fully engrossed trying to capture a distant station when the photo was taken.*

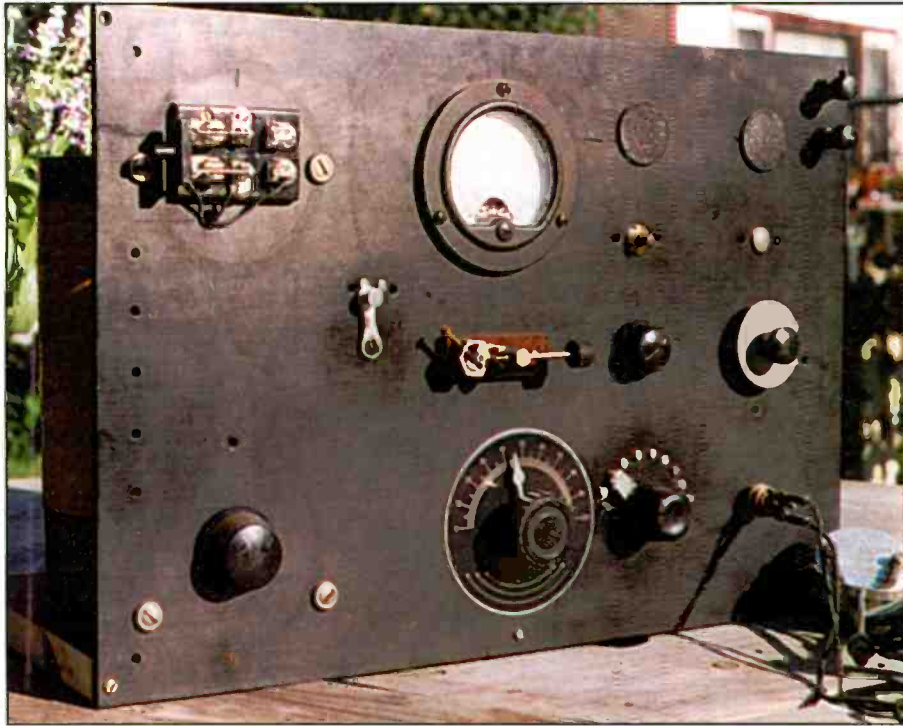
gas molecules. The remaining getter stays active throughout the tube's remaining life, capturing and bonding with gases released from the tube elements, or from small leaks at element lead seals.

We posed John's questions on an Internet newsgroup and garnered the following response from contributor Robert Murell: "According to the *Radiotron Designer's Handbook*, fourth edition, 1953: 'A very high degree of vacuum is produced during manufacture by a combination of vacuum pumps and is made permanent by the flashing of a small amount of getter which remains in the bulb ready to combine with any impurities which may have been driven off during life.' So, Rule 1 is true. Experience has taught me that if the getter is powdery white, the tube has been 'aired' and is bad."

Contributor John Martin expands further: "The getter really serves two purposes, 1) To pull vacuum down to a much lower level than that attainable with the mechanical pumps alone at seal off; 2) To continue to capture residual air molecules during the life of the tube by corroding

and taking those molecules 'out of circulation.' The most commonly used getter since the early 1930s is barium — sometimes with other constituents — and it is quite effective in cleaning up most gases. Prior to that time magnesium was used (that is what is on the inside of 01As). Although it cleaned up oxygen pretty well, it didn't do as well with nitrogen, which is roughly 70 percent of our atmosphere. The speed at which the getter is fired affects its appearance. Rapidly fired getters can appear dull, and sometimes brown, whereas getters that are fired slowly allowed to condense on the glass over time will appear more shiny. Other tubes use a bulk getter that didn't condense as a coating on the inside of the glass, yet they still may have a very good vacuum and be fine; test the tube to be sure. If the getter is turning milky white, it's been reacting with air molecules and the tube probably has a slow leak, and limited remaining life, if any. If the getter coating has rainbow-like rings around the edges (where the layer is thinnest and reactions with gas molecules are thus the most visible), the tube may have been worked hard

BY PETER J. BERTINI <RadioConnection@juno.com>



*Having lots of knobs, switches, and adjustments to chose from make operating this set an enjoyable experience!*

and liberated some gases from the elements. These tubes certainly bear testing, if one can't be absolutely sure if the tube is new. But, this isn't a hard and fast rule. I have a bunch of NOS Russian 5Y3s with rather dull getters having subtle rainbow-like edges, and they have never been used and test fine. The getter does not serve to repel electrons, although I suppose it could somehow develop a charge and do so incidentally."

I wouldn't be quick to condemn a tube exhibiting a partially clouded getter with some silver surface area remaining. Several questions arise in these cases: how old is the tube, and how long has the leak existed? Consider a 50-year-old tube that had a slow leak since it was sealed and the getter fired. The tube now shows about 1/3 of the getter being clouded with the tell-tale milky white powdery coating that indicates a leak. This tube could have another 50 years of life left. The problem is that we don't know when the leak began, or the age of the tube. Test it, and use it until it fails.

Power tubes can be overheated and release excessive gases from their internal elements. These will show a pronounced bluish glow between the inside of the plate and the cathode structure. The tubes are unusable. On the other hand, tubes with unusually high vacuum can show a slight bluish iridescent glow on

the inside of the glass envelope which is a sign of exceptionally high vacuum. This effect is often mistakenly thought to be an indication of a gassy tube!

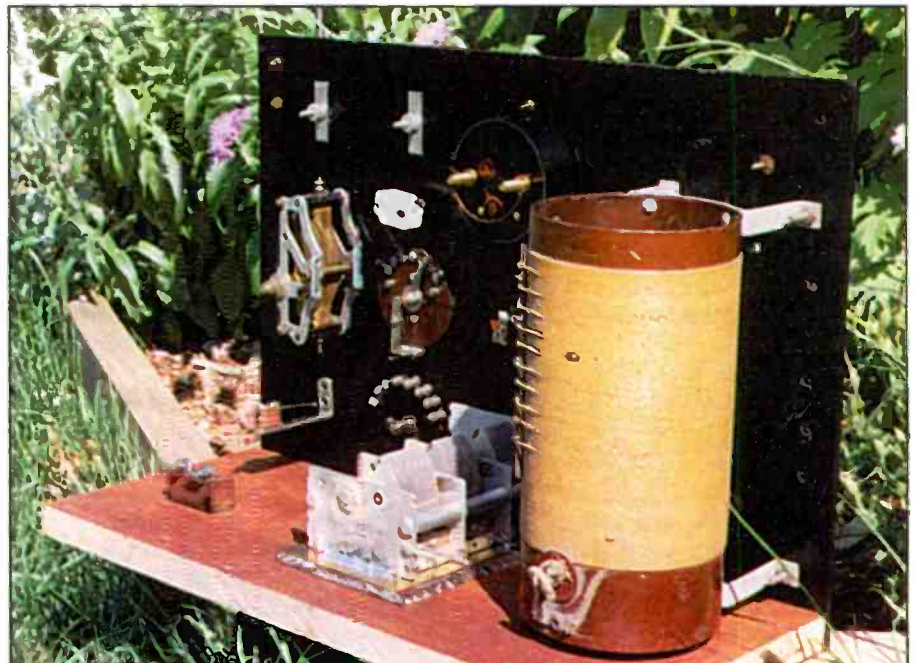
### Mail Bag

Reader Larry Stocking writes and comments on how much he enjoys the "Radio

Connection" each month. Larry asks "I have a Philco 16B and the tube shields are rusted and oxidizing. How would you restore them to look nice?"

Larry, the first thing I would try is a large ultrasonic cleaner! I've had good luck removing rust from small parts using these devices. Lacking access to a commercial sized one, you could try gently rubbing with steel wool, or one of the commercial products made for rust removal sold at your local home center. Whatever means you use, you can assume that the original plating will be removed, and that rust will rapidly reappear on the unprotected metal surfaces. You can "paint" the shields using a zinc bearing paint (check the Rustoleum products at your local hardware store's paint display); I've used similar products on cleaned up rusted chassis's with great results. You will have to use masking tape over the contact areas on the shield where they mate with the tube socket clips while painting because you want a good electrical connection here and paint will tend to insulate the surfaces.

Here's an idea for a great restoration tool! I've heard it works well, but I've never had the time to try it. First you need one of those mechanisms used underneath motel beds for massages. These are motors driving an off-centered flywheel. When rotating, the off-centered flywheel generates the massage action through vibration. If you attached a large coffee can to one of these motors, and then par-



*A look behind the dials before Don wired up the set using 24 AWG black cloth covered wire.*

tially fill the can with sand, or another similar mild abrasive; it should make a fine cleaning system for small metal parts. If someone tries this and it actually works, let us know. Send pictures and details, and we'll share the information with the others.

Reader Joe Giovanelle wrote us a long letter covering many topics. In mentioning a problem with crystal set reception he noted "The problem here was that really weak signals made the diode operate in a nonlinear manner, so there was obvious distortion. That disappeared with the stronger, local stations."

My suggestion is to match the DC and AC loads to your detector diode. If you are using a typical pair of 2,000-ohm vintage headphones, they will have an impedance, or AC resistance, of about 12,000 ohms. Try this. Place a parallel resistor-capacitor combo in series with the headphones. Use a 10,000-ohm resistor paralleled by a .02 to .1 mfd capacitor. That should do much to clear up distortion. John also commented "Like your design, I used the 1N34A. I could have wished for a diode with somewhat lower forward resistance . . ." the problem with germanium diodes is their high-leakage. As the signal level decreases a point will be reached where the forward vs. reverse resistance become equal, and rectifying action will cease. Some experimenters have reported excellent results using three or four Hewlett Packard hot carrier diodes in parallel for a crystal set detector.

## Another Lyonodyne

Don Arpin, KA9WKQ, writes "Thanks for publishing my super-regen in the February 2000 issue! These photos show my junk-box version of the crystal set published in the May 2000 column. Both articles encouraged me to utilize odds-and-ends that I have gathered over the years, and to put them together into a working radio with unique features. I have an extensive junk-box, though the old Bakelite panel was like Swiss cheese with numerous holes from projects long ago.

"My most interesting catch was a station from Birmingham, Alabama, station WEWN on 5.825 MHz shortwave. It came in with a 1/2 scale reading on the 25-uA meter on the front-panel. I added a knife switch to reverse the antenna coil since it didn't have bottom taps, and another to shunt the coil to ground to change the way it reacts on the BCB. (Bypassing the ground coupling capaci-

tor — Ed) I also added a two-position lever switch so I could go between a fixed and adjustable detector. Don"

## Boatanchor Notes

Eric Sedberg asks "I may have missed a few issues on the newsstands, and may have missed the following topics in your column — namely how to restore the radios we most often encounter in our garage-sale searches. I speak in particular of the many Hallicrafters models (I find a lot of S40As), and my favorite of

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the oldies, the Zenith Trans-oceanic! Also, I have a Hammarlund HQ-180 that I'd like to any preventive maintenance you recommend. What are the chances?"

Those older, larger communications receivers are reverently called 'boatanchors' by collectors in deference to their large-size, high tube counts, and sheer weight. Many of the ads of their day for these vintage ham and SWL sets would make one believe that heft and size were directly related to quality! Our September and October 1998 columns featured an S40A rehabilitation by Dr. Edward Engelken; and we did cover some Trans-oceanic restoration topics last month. I am not familiar with the HQ-180; but I do own an older HQ-145CX which is probably very similar in construction.

Start by giving the cabinet and front-panel a very gentle cleaning using a mild detergent. One thing to watch for is the condition of the silk-screening on the front-panel — you don't want to damage it by aggressive over-cleaning. Dust on the chassis can be freed using a small paint brush and vacuumed up with a vacuum clean hose.

If the set isn't fused, that is first thing I would provide. My Hammarlund used mostly ceramic disc capacitors, so wholesale replacing of wax caps wasn't a major issue. First, I checked the set over closely for any signs of overheated components, such as discolored resistors. That inspection revealed a burnt resistor feeding B+ voltage to an IF transformer. This led to the discovery of a shorted IF transformer — the original reason the set was disposed of by its owner. I cleaned all of the controls and switches using DeOxit spray cleaner. The bearings in the variable caps were lubed as needed; and I checked the tubes to weed out any dead ones. Since these sets date back to the late

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**"...if there is any sign of leakage, replace the cap."**

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1950s to mid-'60s, replacing the filter cans is a judgment call. I've found, from personal experience, that most filter cans from this era still have a lot of service life left in them. The alternative is to replace them with new caps, and new production can capacitors are becoming scarce and costly. Look at the seals around the terminal lugs on the bottom of the cans — if there is any sign of leakage, replace the cap. Also, I suggest forming the capacitors by bringing the sets up to voltage slowly over a period of several hours using a large Variac.

Next, you will need the owner's manual for the model radio you own. I've listed numerous resources for vintage manual reproductions in past issues. Your set probably will need a light alignment to bring it back to spec. One caveat here; be very careful when aligning the slugs in the RF and IF transformers! If the slugs are stuck leave them alone unless you want to deal with restoring a coil wound on a disintegrating plastic bobbin. This is what I ran into the bad IF transformer in my HQ-145! An internal mica capacitor had failed, arced over the plastic insulation, and shorted to chassis. While this would have been an easy fix by adding an external fixed silver mica capacitor in its place, the plastic used for bobbin assembly inside the IF can was literally falling apart. The coil had to be glued back together, the slugs removed, and tuning for alignment had to be provided by adding a combination of external fixed micas and variable ceramic trimmers the circuit in lieu of the original inductive slug adjustments.

## A Collins Story

"Hello Peter" begins a letter from Brian Davis, W9HLQ. "As a longtime boat-anchor collector, I really appreciate and enjoy your articles. I have seen radios similar to the American Bosch shown in the March 2000 *Pop'Comm*. Your technique of keeping the wiring harness intact is new to me. It has been a great time-saver over the process of removing all wires.

"Usual restoration articles don't get into this detail, limiting themselves to polishing knobs and shining up the cabinet. Please give some details on cabinet

repairs as this is the hardest part for us electronic types.

"I found a Collins S Line in an estate sale that was in very bad shape. Mice had been living in it; and when I picked it up I found the bottom was wet with mouse urine. Needless to say, this radio needed help! Since it was so far gone, I just put it in the back yard and turned the hose on it.

"I gave the radio good dry time, several days, and then put them on the Variac. They worked! I had lots of corrosion to burnish off, and the chassis looks messy, but the decals and printing on the chassis's are still intact.

"Keep up the good work. These articles teach us how to do something, have the necessary specifics, and great pictures. Thanks."

Great job, Brian! I would have suggested adding a lot of industrial-grade detergent to the first wash cycles; followed by several good rinses in pure water. Mr. Clean would be probably do. What you have done is not that drastic. I have seen similar techniques written up in *QST* and *Ham Radio Magazine* over the years. Some folks prefer to use an oven to speed the drying time — the oven must be kept at its lowest settings, preferably under 140 degrees; and all of the plastic items (dial scales, escutcheons, dial covers, knobs, etc. — anything that could melt) should be removed before going in the oven!

Once the set is dried, it should be brought up on a Variac — ever so slowly as you noted — while monitoring the AC current being drawn. I'd also suggest removing the rectifier tubes and allowing the sets to self-cook for several days before applying the high voltages — even once you're confident that the set has fully dried. Heat produced by all of those tube filaments help speed drying time. Power transformers, filter chokes, and audio transformers have lots of nooks and crannies to hold water, and driving out the moisture fully is a time consuming — but necessary — first step. I'd advise using an ohmmeter to check for leakage between various windings to each other, and ground, on the transformers after drying is completed. Another weak point for moisture is the cheaper phenolic two-piece so-called wafer sockets used in inexpensive consumer-grade radios. Moisture trapped between the wafers can lead to arcing which produces conductive carbon tracks. The socket will have to be repaired or replaced if this happens. ■

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# PLANE SENSE

Your Link To Aviation Communications

## Controller And Pilot Talk: What It All Means

Welcome to the April 2001 "Plane Sense." Though I am a practical joker I won't be playing any jokes on you, but I do have another aviation-oriented trivia question. Arguably the best, or at least most-respected fighter in the Air Force, Navy and Marine inventories was the F-4 Phantom II. It has served not only with dignity in the U.S., but with Israel, Japan, and many NATO countries and was the only aircraft used by both the Air Force Thunderbirds and the Navy Blue Angels demonstration teams. The question is: What was the designation originally assigned to the Air Force Phantom II? (Hint — it was not the F-4.) Answer at the end of the column. And no peeking.

Since I have been writing this column I have been asked questions about what the controllers and pilots have been saying. Some statements are self-explanatory, while others are not. So, in the interest of all who have written, and those too timid to ask, the next few columns will cover what you hear on our aviation frequencies.

If you remember the first column I wrote for last May's *PopComm* you may recall that I go to movies that feature aviation and air traffic control with one express purpose in mind — just to see how much the writers/producers/directors have screwed up flying in the movies. So you may see the phrase "soap-box" in this and later columns. I'm on the "soap-box" showing where these movie moguls have botched it.

### "Cleared"

One of the words used most often by controllers is "cleared." It means, simply, that a pilot has been "cleared" to do a specific thing. A local controller may tell a pilot, "cleared for takeoff" which means the pilot is allowed to taxi onto the runway, if he/she is not already on the runway, and begin his/her takeoff. Obviously there has to be a minimum amount of spacing between that aircraft and the one that took off immediately before him/her. If a small aircraft such as a Cessna 152 just took off he/she needs to be a minimum of 6000 feet ahead of a Lear Jet, a Boeing 737, or the like. Controllers need to look at not only the type of aircraft but the handling characteristics and weight of the aircraft. It doesn't matter what the second aircraft is if the first aircraft is a "heavy" jet. These types of aircraft can kick up considerable wake turbulence, which begins as soon as the aircraft lifts off the ground and ends as soon as the wheels touch down on the runway when landing. The wake turbulence is such that separation is increased both for aircraft following the heavy aircraft at the same altitude, but up to 2000 feet beneath the heavy aircraft.

Soap-box #1 — Pilots are given the phrase "Cleared for takeoff" when the aircraft is at the runway, is the first in line when other aircraft have taxied out and the pilot has requested clearance. I know of no pilot flying an aircraft anywhere that is given

clearance for takeoff while the aircraft is still in the hanger, not taxiing and the engine is not running. See the film "Iron Eagle."

### "Cleared To Land"

The controller also says "cleared to land" when the pilot is close to the runway and no other aircraft is ahead of him/her. Here are a couple of exceptions. A pilot may be given clearance to land if another aircraft is on the runway and is either taking off, and will be airborne and a minimum distance down the runway when the landing aircraft is over the approach end of the runway, or if the aircraft on the runway is landing and will be clear of the runway when the second aircraft is over the approach end of the runway.

The only other exception is if the first aircraft has been cleared to land and another aircraft also coming into the airport has the first aircraft in sight and will keep the aircraft in sight. In that case you may hear a controller say, "Cessna 12345, number two following a Piper Cherokee on final approach, a touch-and-go, cleared to land." The controller has told the pilot of the second aircraft what type of aircraft he is following, where the aircraft is, and in this case what the aircraft is doing — a touch-and-go — which means the pilot, probably in flight training, will land the aircraft on the runway, and not stop, but roll down the runway a little bit, apply power, and take off. Again this would probably not be done if a business jet was following a small prop-driven airplane.

The third type of clearance is heard over clearance delivery frequencies (noted as CD or CLNC DEL in the various guides I have described in recent issues). If no clearance delivery frequency is available, then the ground control frequency is normally used. In this case a pilot may be given the following: "Aerostar 1234 Alpha, cleared to Atlanta Fulton County as filed. On departure fly heading three-six-zero, maintain five thousand, expect one-seven-thousand one zero minutes after departure. Departure frequency one-one-eight point eight. Squawk four-five-two-two." This is an instrument clearance. In this case the Aerostar aircraft, call sign 1234 Alpha has been given clearance to the Fulton County airport in Atlanta, Georgia. When the pilot gets the aircraft airborne he/she is to fly a heading of 360 degrees magnetic, not true north. The pilot will climb the aircraft to 5000 feet above sea level (you can't do that in Denver) and expect to climb up to 17000 feet above sea level (you can do that in Denver) within 10 minutes after he/she departs the airport. (Side note #1: the pilot will be expected to climb to 17000 at 10 minutes if for some reason the pilot loses radio contact with the approach control. Controllers call that going NORDO [for no radio]) Unless on departure the pilot is given another frequency to contact the approach control he/she will use 118.8MHz. The pilot will also set the aircraft transponder to read 4522. When the aircraft shows up on radar the controller will see "N1234A." (Side note #2: some

radar systems, mainly used by the military may just show the number "4522" on the radar scope.)

## "PIREP"

You may also hear the phrase "PIREP," pronounced PIE-REP. This is short for Pilot Report. Weather stations and Flight Service Stations can only get so much information from weather instruments and local observations. Pilots flying and on the ground at many airports can relay much information for other pilots. The minimum requirements for a PIREP are time, location, type aircraft, altitude, and one or more of the following: sky conditions, flight visibility, temperature, wind speed and direction, icing, or turbulence. This information is received from pilots through towers, approach controls, centers, and flight service stations. Towers, approach controls, and centers will relay their PIREPs to the nearest flight service station. The PIREP information is then formatted and sent out to every flight service station, who then disseminates the PIREP as needed. Obviously an airliner flying at 35000 feet from New York to Chicago would not need any PIREP about local fog conditions at Brooksville, Florida. The reason the type of aircraft is needed is because of various flight characteristics. For example the pilot of a small Ercoupe might describe turbulence as severe, when the same turbulence would be minuscule to an Air Force C5A Galaxy.

A sample PIREP given by flight service would be as follows: "Mooney 54321, 15 minutes ago a Cessna 182 over the Lakeland VOR flying at seven thousand feet heading north east towards Orlando reported the bases of an overcast at two thousand five hundred, the tops at three thousand two hundred and clear above. Flight visibility is unrestricted. The outside temperature is seven degrees Celsius and negative turbulence."

What he told the pilot of the Mooney was that 15 minutes earlier a small Cessna 182 was flying northeast over Lakeland, Florida to the north east towards Orlando. During his climb the bases of a solid cloud layer was at 2500 feet above sea level and was in the clouds for about 700 feet, breaking out of the tops at 3200 feet above sea level. Once he broke out of the clouds there was no haze, smoke, or fog to impede his view. The outside air temperature was 7 degrees Celsius or 44.6 degrees Fahrenheit. The pilot also reported a smooth ride with no turbulence. This Mooney can pretty much expect the

same thing. PIREPs are only kept and used for about one to two hours and are then discarded. This information can be crucial to pilots, especially when weather is not conducive to flying. I have talked to many a pilot who decided not to fly based on PIREPs received. When weather is iffy it is imperative that controllers solicit PIREPs from pilots for the safety of other pilots.

## A Look In The Mailbag

From Matthew Evens of New York: "Enjoyed your article on CAP Communications and the Level I refresher." Thanks, Captain. I'm glad to see that there are others in the Civil Air Patrol reading *PopComm*, too.

Leonard Beecroft of Toronto, Ontario, Canada writes: "Thank-you for answering my question in your November 2000 column — the one about Approach Control Facility Communications. Sorry for taking a while for getting back to you, but I just got my internet up and running. (The question I asked was about A.P.U.'s)" I appreciate the question from Leonard, which gave me the impetus for this and the other articles.

J. S. Couturier wrote: "I was writing to receive contact info about joining the civil air patrol. You can send the info to me."

Great question. In all I wrote in the article I failed to put in the Website for the Civil Air Patrol. Check out <http://www.capnhq.gov>. On the left side of the screen you will find a series of buttons. Press the "JOIN CAP" button and you'll get all the info you need.

Joe (Fish) Myers sent me a lengthy E-mail about his unit in Texas and its history. Joe is a 52-year veteran of the CAP. I have met few in the CAP with as many years as Joe. This is a remarkable man. He made a statement in the letter I had not thought of. He writes: "I appreciate your article and I believe in CAP, especially the cadet program and I believe every young person should be in either CAP or the Boy Scouts . . . also CAP WWII vets are never honored by the government or military organization for losing their lives on submarine patrol or border patrol. Sad."

Joe, thank you. I wish I could have used your entire letter. I will, however, contact my congressman to see what can be done to rectify this. After all, this December will mark the 60th anniversary of the start of the CAP, and just how many of our WWII vets are still alive? Readers, I ask you to contact your congressman. Please tell me your results.

Here are this month's new/old/changed aviation frequencies.

### New Frequencies

#### AR

Harrison/Boone County (HRO)  
CTAF 123.0

Hot Springs Memorial Field (HOT)  
ASOS 119.925

#### CA

Lancaster/General William J. Fox (WJF)  
ASOS 126.3

#### FL

Tampa/Vandenberg (X16 or VDF)  
AWOS-3 121.125

#### GA

Alma/Bacon County (AMG)  
ASOS 118.325

#### IL

Decatur (DEC)  
ASOS 126.35

#### IN

Indianapolis/Mount Comfort (MQJ)  
AWOS-3 124.175

#### KS

Garden City Regional (GCK)  
CTAF 118.15  
John/Stanton County Municipal (2K3)  
AWOS-3 124.175

#### McPherson (MPR)

AWOS-3 119.025

#### Pratt Industrial (PTT)

AWOS-3 118.725

#### Ulysses (USL)

AWOS-3 118.95

#### LA

Shreveport Downtown (DTN)  
LC 120.225

#### MN

Minneapolis ARTCC (ZMP)  
Des Moines Low Sector 288.1

#### MS

Meridian/Key Field (MEI)  
ATIS 126.475/279.575

#### MT

Helena Regional (HLN)  
Air National Guard Ops 321.45

Lewistown Municipal (LWT)  
ASOS 118.375

**NM**  
Carlsbad/Cavern City Air Terminal  
(CNM)  
ASOS 118.375

**NV**  
Lovell/Derby Field (LOL)  
ASOS 120.675

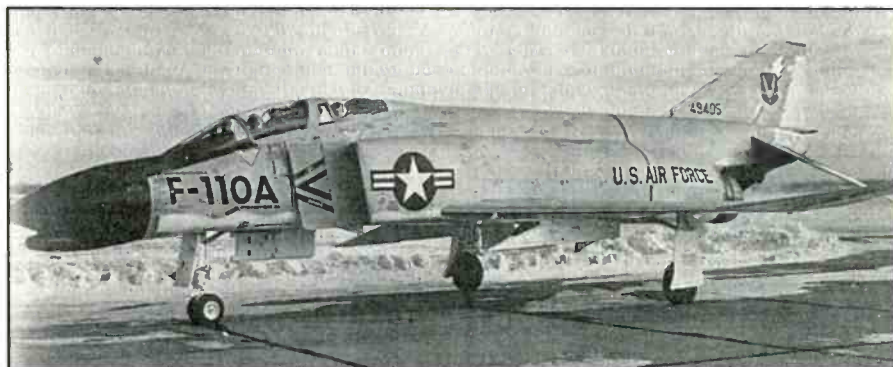
**OK**  
Alva Regional (AVK)  
AWOS-3 121.125

Chandler Municipal (CQB)  
AWOS-3 119.275

Sallisaw Municipal (JSV)  
AWOS-3 118.475

**TX**  
Lampasas (T28)  
AWOS-3 119.075

**WA**  
Tacoma/Fort Lewis/Gray Army  
Airfield (GRF)  
LC 276.4



The F-110 aircraft.

**WI**  
Wausau Downtown (AUW)  
ASOS 125.925

**WY**  
Worland Municipal (WRL)  
ASOS 135.475

#### Changed Frequencies

**CA**  
Marysville/Yuba County (MYV)  
ASOS was 132.175, now 118.475

**FL**  
Milton/Whiting Field Naval Air  
Station North (NSE)  
Approach was 123.725, now 127.35;  
was 265.1, now 291.625

Crestview/Bob Sikes (CEW)  
Destin (DTS)  
Mary Esther/Hurlburt Field (HRT)  
Milton/Whiting Field Naval Air  
Station North (NSE)  
Valparaiso/Eglin AFB (VPS)  
Valparaiso/Eglin Air Force Auxiliary  
Number 3 Duke (EGI)  
Approach was 286.0, now 269.375

**LA**  
Shreveport/Downtown (DTN)  
UNICOM was 123.0, now 122.95

**PA**  
York (EUD)  
NDB was 285 kHz, now 253 kHz

**WA**  
Tacoma/Fort Lewis/Gray Army  
Airfield (GRF)  
LC was 126.2, now 119.325; was  
241.0, now 256.8  
GC/CD was 229.5, now 290.2  
Approach was 237.5, now 239.0; was  
255.7, now 317.4  
ATIS was 248.2, now 306.2  
Operations was 393.3, now 379.1

**WI**  
Eau Claire/Chippewa Valley Regional  
(EAU)  
CTAF was 122.95, now 123.6

#### Deleted Frequencies

**AK**  
King Salmon (AKN)  
RCO 118.3

**AR**  
Harrison/Boone County (HRO)  
RCO 123.6

**CA**  
Lancaster/General William J. Fox  
(WJF)  
AWOS-3 133.875

**OK**  
Watonga (JWG)  
AWOS-1 134.175

**TN**  
Pulaski/Giles (GZS)  
NDB 375 kHz

#### Trivia Answer

The answer to this month's trivia question: The F-4 Phantom II was originally given the designation of **F-110A** by the Air Force. It was already called the F4H-1 Phantom II by the Navy. In September of 1962 the Department of Defense ordered all military services to unify the numbering systems of military aircraft. This way an F-14 of the Navy could not be confused with an F-14 of the Air Force if it was a different aircraft. (note: the Air Force does not use F-14s) or, in the case of the Phantom II, the same aircraft would not have different number types to confuse pilots and controllers.

See you next month with a new Plane Sense trivia question. ■

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# THE HAM COLUMN

Getting Started As A Radio Amateur

## Having Fun On The Net — Not The Internet!

If you mention amateur radio nets to the average nonham, he'll probably conjure up the popular TV news image of hams frantically — and cryptically — passing emergency traffic during one natural disaster or another. Typically, the hams and their rigs are in the foreground, while in the background a tide surges or a fire races down a nearby canyon wall. Because these scenes are shown time and time again, every amateur radio operator and most nonhams know that ham operators pass emergency traffic and often remain on the air when just about every other communications service is knocked out. It's one of the few images that endear hams to the general public — even when our antennas don't!

Amateur radio is a service, after all, and maintaining and training for emergency operation is a big part of what we do and how we justify our existence to the world's many governments in this spectrum-hungry era.

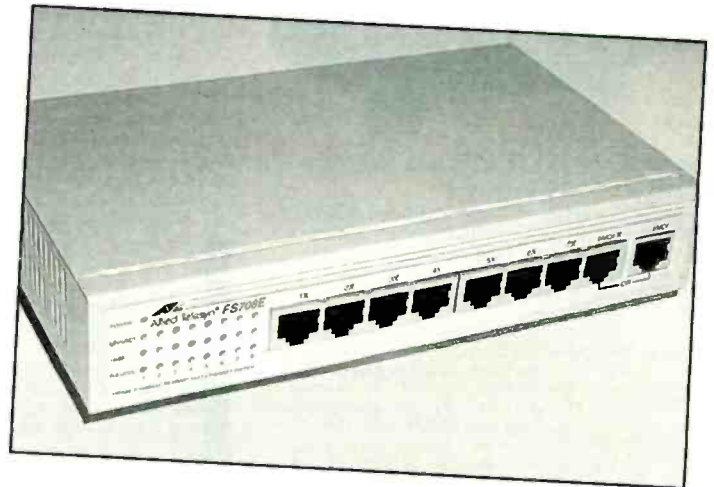
But there's more to ham radio nets than passing traffic and preparing for emergencies. Putting public service issues aside for a moment, let's shift our focus to simply having fun talking with other hams who have gathered on frequency for some mutual purpose, be it fun, education, conversation, awards-chasing, or to support hams who are mobile (on land or over water). These "just-for-fun" nets and "wide-coverage" nets number in the hundreds, yet they're often overlooked by hams who would otherwise have a lot of fun by participating!

### Kinds Of Nets

How about the Good Sam RV network (7284 kHz, Tuesdays–Saturdays, 0130Z and 14240 kHz, Sundays, 1900Z); the 75-Meter Youth Net (3970 kHz, Mondays, 0030Z); or the International Tesla Society Net (14297 kHz, Sundays, 2100Z)?

Checking into these nets is a great way to meet people — especially people who share interests similar to your own. You can make new friends, work lots of DX stations, states and counties, give school kids their first contacts, and learn about everything from old radios to new computers — you name it! And remember: SWLs are welcome, too, although the conversations are a bit one-sided!

Ham radio nets foster camaraderie and a sense of community. You might even meet your future spouse on a ham radio fun net. It's happened more than once — and it will happen again. You could be next! Because new nets pop up here and there, and established nets sometimes change their times and frequencies seasonally, and because of varying propagation conditions, keeping track of them and figuring out when "what net meets where" could be a real chore. But thanks to the ARRL Online Net Directory ([www.arrl.org/FandES/field/nets/](http://www.arrl.org/FandES/field/nets/)), a comprehensive guide to amateur radio nets, finding your favorite nets is easy. The Directory, updated regularly, lists times



*Need to network that ragtag collection of desktop and laptop PCs for your club's next contest effort? You could use a conventional network hub, but why not use a switch instead? Switches, such as the Allied Telesyn 8-port 10/100 desktop switch shown here, look and work like LAN hubs, with one important difference: Hubs split the available bandwidth among all connected PCs, while switches offer a full-bandwidth connection to each connected computer. For an extra \$15 or so, that's a powerful incentive to, ah, switch!*

and frequencies for hundreds of traffic and fun nets in the U.S. and Canada (with some international coverage).

### Mobile/Maritime Service Nets

Hams have a long tradition of keeping an eye out for travelers in campers, cars, trucks, or sailboats. Try these nets: Waterway Radio and Cruising Club (East Coast-Caribbean, 7268 kHz, Sundays, 1245Z winter, 1145Z summer)

Maritime Mobile Service Net (worldwide, 14300 kHz, daily, 1700–0300Z)

South Pacific Sailing Net (7299 kHz, daily, 1700Z).

Let me also include some of the many nets that support RVers and other travelers — as previously mentioned, The Good Sam RV Radio Network (7284 kHz, Tuesdays–Saturdays, 0130Z and 14240 kHz, Sundays, 1900Z); and the Family Motor Coach Association Amateur Radio Net (14263 kHz, daily, 1900 UTC).

### Ragchew Nets

Ragchewing is what hamming is all about, right? Judging by the number of ragchew nets listed, there's no disputing it! Here are just a few:

Bearfoot Net (New England, 3936 kHz, daily, 0000 UTC)

BY KIRK KLEINSCHMIDT, NT0Z

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Country Cousins (3972.5, daily, 0230 UTC, and 3970 kHz, daily, 0500 UTC)  
Clamdiggers (14250 kHz, daily, 1530 and 2230 UTC).

### Old-Time Radio/Technical Nets

There's a lot of technical expertise and arcane radio wisdom floating around out there in ham radio land, and when experts and enthusiasts gather to discuss or horse-trade their favorite specialties, fun and information is at hand. Want to see what I mean? Try the QCWA International Net (14347 kHz, Sundays, 2000 UTC).

### Awards-Chasing And DX Nets

These nets tend to ebb and flow with the 11-year sunspot cycle. When propagation is hot, these nets seem to be everywhere. When it's not, they're more sporadic and infrequent.

Although some long-time paper-chasing nets are not listed in the current Directory (most notably the 3905 Century Club Net, 7233 kHz, daily, 0000Z), some awards-chasing nets and nets with DX potential are listed:

OM International Sideband Society (daily on many frequencies — 3940 kHz at 0200 UTC, 7262.5 kHz at 0100 UTC, 14290 kHz at 0100Z)

The California/Hawaii Net (14340 kHz, Monday-Friday, 1700Z).

### Special-Interest Nets

All hams have at least one thing in common — the fact that

they're hams. But they also have diverse and individual interests that often find a way into ham radio and onto the airwaves. If a particular net is about "your thing," participation can be rewarding and educational. Here's a small sampling:

Tin Can Sailors Net (14255 kHz, Sundays, 2100Z)

Ayn Rand Admirers Net (14272.5 kHz, second Monday and the last Wednesday of every month, 0030Z)

Boy Scouts of America (14290 kHz, Sundays, 2030Z)

Flying Boat Amateur Radio Society (21,355 kHz, Monday-Thursday, 1530Z)

International Brotherhood of Electrical Workers (14327 kHz, Saturdays, 1600Z)

International Nude Net (14265 kHz, Thursdays, 0000Z)

International Police Association Net (14240 kHz, Sundays and Wednesdays, 1700Z)

U.S. Submarine Veterans (14243 kHz, Monday-Saturday, 1700Z).

### Net Notes

Many nets never make it into any listings, so the only way to find them is to listen around or ask other hams about the nets they participate in. Locally, many cities and regions have VHF/UHF nets. The bonus here is that you may be able to meet these "net friends" face to face.

Happy netting! Have fun and don't be afraid to join in. Keep your photos, letters, and column suggestions coming to me at "The Ham Column," 25 Newbridge Rd., Hicksville, NY 11801. ■

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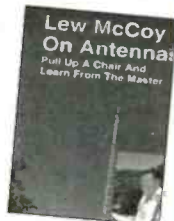
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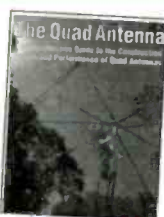
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# RADIO RESOURCES

Interesting Thoughts And Ideas For Enjoying The Hobby

## Programming Land Mobile Radio Services

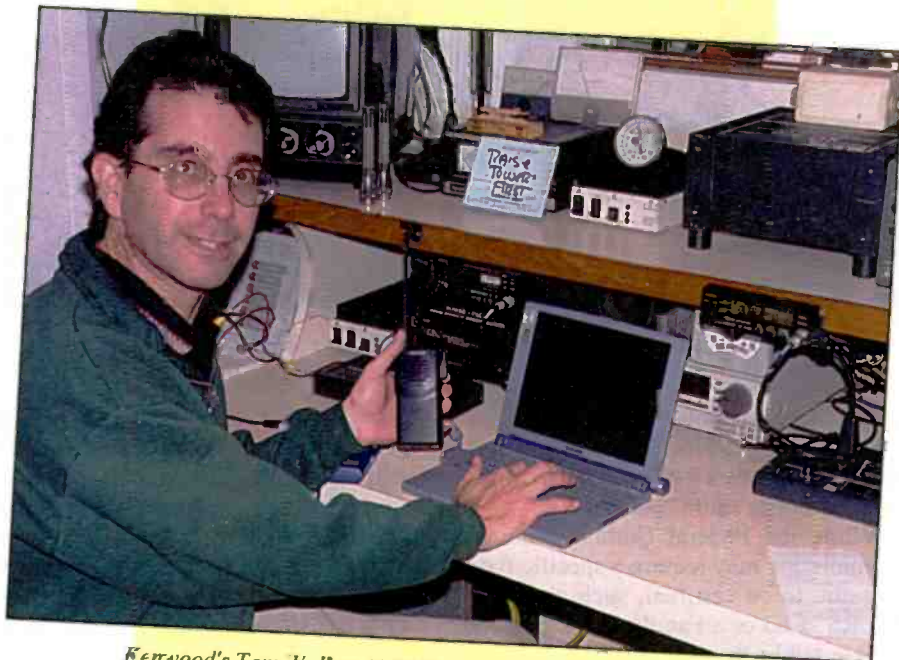
**D**id you know that almost all land mobile two-way radios may not be user-adjustable for selecting frequencies? If you have been around commercial two-way radio for sometime, you will recall that over 10 years ago the FCC put the kibosh on the type-acceptance of any commercial two-way radio that could allow the end-user to select frequencies beyond what the equipment was originally programmed. The Federal Communications Commission also dropped the requirement that land mobile radios needed to be factory- or service-shop adjusted by commercial license holder technicians. For domestic radios, the FCC now permits any competent "technician" to do the programming. If that same technician becomes the "end-user," they could do their own programming without holding a commercial General Radio Operator License (GROL).

Marine radios and aeronautical radios may NOT be internally tuned or internally adjusted unless you hold the General Radio Operator License (GROL), which was the old FCC commercial second class license, or higher. But the FCC DID allow the mariner end-user unlimited access to selecting frequency — hundreds of them — preprogrammed by the factory on their marine or aircraft radios.

Recently, the Commission also changed its "blessing process" on land mobile two-way radio and marine radio products, now calling the process "certification" as opposed to the old "type-acceptance." Two-way radio certification is an almost must when coming out with a product that transmits more than just a few hundred feet.

The FCC has some rather strict programming and user-selectable frequency rules to many radios you see on a daily basis including:

- Cellular and cordless phones
  - Portable, mobile, and base land mobile radios
  - Aviation and marine radios
  - CB, GMRS, FRS, and MURS
- This certification process and restrict-



*Kerrwood's Tom Welker, N6TVZ, loads 15 channels in a few seconds.*



*A Pryme technician shows how a computer is NOT needed to program up to 99 channels.*

BY GORDON WEST, WB6NOA



FRS and GMRS share the first seven interstitial GMRS channels.

ed user access to non-factory frequencies goes well beyond the radios I have just listed, but these are the radios we see most often as hobby radio "observers."

While the Federal Communications Commission may require a specific type of radio to be certified, such as a new MURS radio or a Family Radio Service walkie-talkie, the radio ITSELF may not require the end-user to hold a specific license. ANYONE without a license may operate a CB radio, an FRS radio, or the new MURS radio, and you certainly don't need a license to roam your home on a cordless phone.

## General Mobile Radio Service (GMRS)

GMRS falls under Part 95, Subpart A — General Mobile Radio Service. FCC Rule 95.3 specifically calls for licensing for a GMRS system, but you could purchase GMRS equipment and operate, with a specific permission, a REACT system who may already have an older station license in place. Without your own license for you and only your immediate family, your REACT involvement would most likely be on only those channels that your specific REACT unit takes part on.

The Federal Communications Commission recently cleared up the issue on whether or not a GMRS licensee could operate with a non-licensed FRS unit on their shared seven interstitial channels. The FCC said YES. Some GMRS radios had these interstitial frequencies inside,

and some didn't. Those that didn't have the channels the operator was entitled to would then need to return the equipment for reprogramming. This return might be to the local two-way radio dealer down the street, but since most Part 95 radios come in mail order, who is going to do it?

This is also fast becoming a big issue with the Federal Communications Commission: How do they classify an open-architecture two-way radio that is developed mostly around digital signal processing and software? For the radio programmer with the RIGHT software, the reprogramming takes just seconds. Case in point — I have a 15-channel Kenwood land mobile transceiver, and my friendly Kenwood technical-type came in with his ultra-small computer and made quick business of my land mobile GMRS requirements including FRS. He could even cut down on the amount of deviation on those seven interstitial FRS frequencies, too!

And Pryme radio products from Premier Communications Corporation ([www.pryme.com](http://www.pryme.com)) have an even easier solution for "technical types" managing their 460 MHz MicroConnect (TM) handheld radios — the Pryme Pro-4 programmer. The programmer could take an eight-channel Pryme Job Connect VHF handheld, and reprogram the equipment for a maximum of 99 channels. It might also hold the five new MURS channels if the equipment meets MURS certification.

The Pryme Job Connect UHF handheld originally comes factory-preprogrammed with eight channels, but the programmer

could add, subtract, or modify up to 99-channel capability. And on the 23-channel Pryme Clear Connect, this handy programmer can easily expand your original 23 channels up to 99.

## Staying Legal!

**UNDER NO CIRCUMSTANCES WOULD YOU TRANSMIT ON ANY FREQUENCY NOT AUTHORIZED.** Premier only makes this programmer available to "technical types" who are regularly in the practice of either selling their excellent low-band, high-band, and UHF programmable handhelds, or those "technical types" providing service for their radio products.

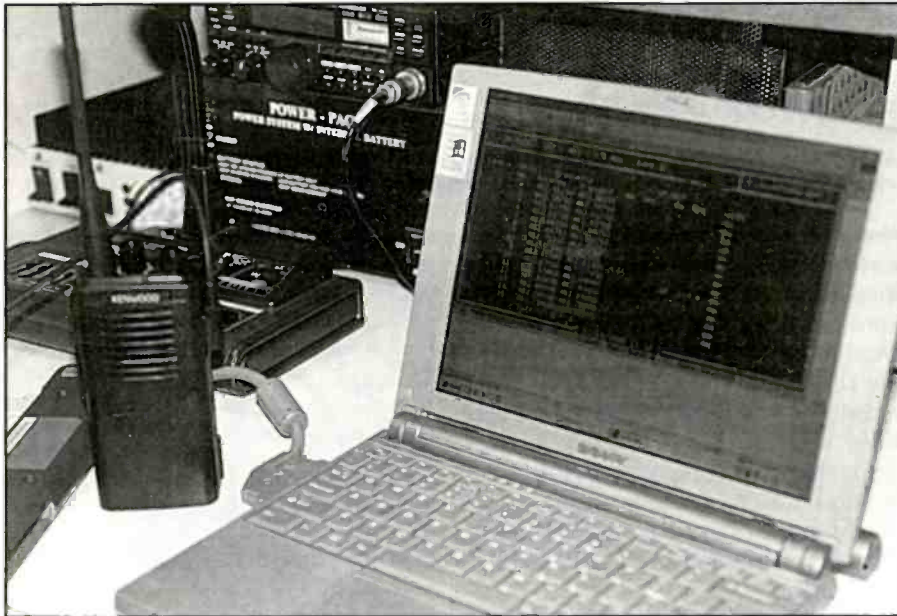
The Pryme programmer looks almost identical to a two-way radio. A keypad on the front of the programmer lets you begin your programming sequence by working through the "system menu" to set the following parameters:

1. Maximum number of channels, 99
2. Intermediate frequency
3. Intermediate frequency shift
4. Keypad personal ID code
5. Keypad group ID code
6. Battery save level

Those final two menu items allow for a three-digit code that is capable of identifying the calling group that the radio is a part of when using DTMF paging. Many municipalities still operate on DTMF



The Pryme portable programmer looks like a Standard Radio Corp. transceiver, but it is not a radio!



The Kenwood 15-channel UHF handheld transceiver is programmed by a computer with restricted factory software.

tones, and this could allow you to program specific ID groups or "all calls."

Each memory channel may be written over or reprogrammed with the following options from this handheld programmer:

1. Scanning lock-out
2. Transmit frequency
3. Receive frequency
4. CTCSS tone frequency
5. CTCSS encode on or off
6. PTT busy lock
7. Timeout timer
8. DTMF call ID code

After working the little handheld programmer, I also discovered the capability to program output power settings to each channel. On UHF, I could do 1 watt, or 2 watts, or 4 watts power output.

Users can also override the power output selection in case of an emergency and needing full output capabilities. It was a somewhat tedious job to program my Pryme Micro Connect UHF handheld transceiver with about 60 of my often-used channels spread between six different handheld transceivers:

- 7 FRS
- 8 GMRS
- 8 output talkaround on GMRS
- 8 more GMRS with different tones
- 20 440 MHz ham channels
- 5 UHF low-power American Red Cross ops channels
- 2 UHF authorized business band channels
- Several channels on-board marine UHF
- 4 EMS authorized channels
- 7 public safety RECEIVE ONLY channels, TX lockout
- 2 FEMA RX channels

Be very careful in how you plug and unplug your programming stereo mini-plugs, because if you plug in at the wrong time, it will take you a few extra minutes to get yourself back to the programming mode.

This same common stereo-to-stereo mini-plug cable lets you CLONE your laboriously memorized channels into another

Pryme transceiver operating on low-band, or on high-band, or in my case, UHF. The instruction book clearly shows "radio to radio cloning," and the entire procedure for around 60 channels only took about four minutes.

The Pryme Radio Products programmer most certainly only works with Premier-manufactured handheld transceivers. Although the Pryme programming process is probably a lot slower than what my pal could do with his Kenwood and a small laptop, the beauty of the system is a handheld-sized programmer dedicated to fulfilling a specific mission and not taking up requirements of a larger-sized computer. Licensed hams that run their UHF handheld out of their vehicle might even keep the programmer tied in continuously for a quick ham radio frequency change.

Keep in mind that this programmer is only sold to technical-type individuals who can demonstrate legal and technical applications to the Pryme handheld product line. If you are into two-way radio seriously,

I recommend reading FCC Code of Federal Regulations, Volume 47, Part 0 to 19, and Part 80 to end. These two thick books are available from Fair Press Services, 202-463-7323. Read the regulations carefully and abide by them using any channel loading program. ■

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# CB SCENE

27 MHz Communications Activities

## Why Can't We All Just Get Along?

At the height of the Los Angeles riots several years ago, a bruised and beleaguered Rodney King murmured the now famous question, "Why can't we all just get along?" Sadly, the answer to Rodney's question appears to be that despite a multitude of reasons why we should, we just can't. While our circumstances are nowhere near as dire, members of the citizens band and amateur radio communities, for years, have been asking themselves the very same question and coming up with the very same answer.

Case in point: CBer, scanner enthusiast, and aspiring amateur radio operator Patrick Dickey, recently wrote us here at *PopComm* asking, "When the FCC took the 11-meter band away from the amateur radio operators, why didn't the ARRL (American Radio Relay League — the largest and most powerful amateur radio support organization) just incorporate the new band into its fold instead of turning against it?"

Well Patrick, I have had occasion to ponder the very same question myself. And while I can't speak for the ARRL (but I bet I'll hear from them soon) I have speculated as to why. I think it really makes a lot of sense, at least initially, when you look at it from the amateur's point of view. I mean here you are, a highly selective, powerful group of mostly intelligent, rich old white men who operate on the cutting edge of technology. You hold reign over large sections of radio spectrum — spectrum that until recently was considered useless and worthless, but now, due to advances in technology, advances which you have played a major role in developing, is becoming quite useful and therefore valuable. Because it is becoming so valuable, giants of finance and industry are eagerly lusting after your prized possession. You are fighting them off, and for the most part, defeating them, on a daily basis. All of a sudden, whaaam! You lose a chunk to, of all people, the people! Wow, talk about a shock! Not only did they lose one, and nobody likes to lose, but this loss was doubly troubling. The amateurs quickly and correctly perceived that this particular loss was potentially threatening to the very core of their reason for being.

Not only did they lose spectrum, but they lost it to a service that could become a genuine competitor. This competitor could attract members, money, and power away from the amateur service. Since they could not keep this new service from becoming a reality, they decided to do the next best thing, cripple it. They did this by encouraging the FCC to impose unrealistic and largely unenforceable regulations on their newly formed potential rival to keep it from ever becoming an alternate form of hobby radio.

Patrick goes on to point out that, "The citizens band is out of control (which is one of the arguments brought fourth by amateur operators against the service). If the ARRL had stepped in and took it under their wing, then they could have helped to keep it in line (they still could). There are some people out there who would like to see the CB cleaned up. But, we can't do it ourselves. With the backing of the ARRL, and the amateur radio operators, we could accomplish this task."

### Then It Became A Hobby!

As we now know, Patrick, the ARRL's efforts to prevent CB from becoming another radio hobby service failed. Not officially, of course; the FCC still holds that CB is not a hobby. They point that out in their recent decline to change the rules for limiting CB communications to less than 155 miles by saying that such a change would encourage "contacts of a random nature." This, in their view, would encourage the hobby aspect and pose a direct threat to the amateur service. But in reality, a hobby — and a competitor of sorts to the amateur service — is exactly what CB has become. So, if one loss was not bad enough, two are even worse.

But wait, there is more. The unrealistic regulations the amateurs encourage failed to discourage people seeking an entry to hobby radio through CB. The non-hobby hobby attracted millions, far outnumbering amateurs. Soon, while the number of amateurs was in sharp decline, CB became so overcrowded that you often couldn't find enough free channel space to pass a quick 10-4 to your next-



An 11-meter QSL from 26 DIV.

door neighbor. Finally, instead of changing the rules to fit the hobby, the FCC abandoned enforcement and the rest, as they say, is chaos. Strike three, four, and five. That is why, from the ARRL's view (I think) we can't get along. That is probably why they have not, are not and will not make any effort to stabilize the band. I am sure that this is why they will oppose any changes in regulation to reflect the true nature of the service and hobby. I'll bet they still feel that the worse things are on CB, the better it is for the amateurs.

### Getting Along?

Enough about them. Let's talk about us. What are some of the reasons we should get along, ARRL willing or not. As you say, Patrick, you are, "willing to bet that a strong minority (if not a majority) of the amateur radio operators either own a CB or got their start using one. I have used a CB for the past 10 years and will continue to use one for a lot longer. I have started to venture in SSB, which I believe is a version of ham radio. Sometime in the future I would like to get my Technician





A neat QSL from Kuwait.

PROG#  TX#  RX#

Dear radio friend, I'm happy to confirm our very nice contact and QSO on:

DAY	MONTH	YEAR	TIME	BAND	RST
TH	04	2001	21:45	15	5/9

2 WAY	USB	LSB	CW	AM	FM	FTTY
						83

I hope to meet you again on the air!

Good DX and 73s

PSE I wait your QSL  
 TNX your QSL already received

102AT103-NASSER  
P. O. BOX 2430  
92400. ARBIYA  
KUWAIT

To: 95D010  
Joe

GRUPPO RADIO ITALIA ALFA TANGO

or Novice license. I have read a lot of letters in *Popular Communications* from ham operators who also have a CB in their shack or vehicle."

I'll bet you're right, Patrick. The amateur community and the ARRL would be in much worse shape today if not for CB. That is where many, if not most, new hams come from.

Written several months ago, Patrick's

note makes mention of the possibility of the 155-mile limit on CB communications being eliminated. Since Patrick wrote the note, the FCC at the urging of the ARRL, had denied the change. This archaic regulation remains on the books. But Patrick also points out, "The citizens band is actually a good place for DXing (or shooting skip). CBers could make and send out QSL cards like the amateur operators do. And

the best way for people to get into DXing is to see (or hear) a person doing it (well). The hams could teach the CBers a thing or two about shooting skip. It just might attract more people into the amateur bands (legally, that is). After all, the CB is a starting point for many amateur operators."

Right you are, Patrick, CB (11 meters) is a natural for shooting skip. That's why so many people all over the world do it.

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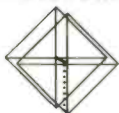
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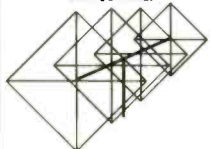
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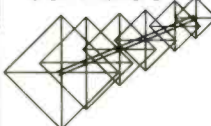
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CBers do send QSL cards. And the best way to learn to do it, and to do it right, is to hear it done properly. Easing of the laws, opening the Freeband and allowing CBers and amateurs more opportunities to interact would be an excellent way to do it. Law enforcement can go just so far and accomplish just so much. The real answer to solving most of the problems in both services is peer interaction and role models.

Patrick concludes by saying "it seems pointless to me that the amateur radio operators are using the citizens band as an example of what will happen if they don't utilize their bands more. Instead of saying that the band was 'ripped' away from them, they should consider the possibility of it being a new form of communication for them. This would be the perfect example of QRP (low power), since the maximum legal power is 4 watts (12 watts PEP)."

Gee, Patrick, I hope you do become an amateur, and then dictator, err, I mean director of the ARRL. When you do, I'll hold you to your word not to forget, as so many have, your roots here on CB. I'll also remind you (and any current members of the CB and amateur community) that times and technology are changing. For example, exotic licenses, expensive large antennas and radios are no longer needed

to "randomly contact" people from all over the world. Today, all we need is some basic equipment that most of us already have — a computer and an Internet connection. The number of potential radio hobbyists, both CB and amateur, could very well be on the decline. The time has come for radio hobbyists, in both services, to set aside their differences and work to make the hobby of radio more exciting and alluring than ever.

## April And May Mixers

For those of us who do still find the act of "randomly contacting" on the air very exciting and alluring, why not make plans to attend the next, regularly scheduled, on-air CB Mixer. They are held, wherever your are, on the last Saturday of the month. The next two will be on the 28<sup>th</sup> of April and the 26<sup>th</sup> of May from 9 p.m. until 10 p.m. local time. SSB operators work channel 36 LSB. AM operators work channel 23.

Well, that's it for now. Thanks for writing me here at the magazine or via the Internet where my address [ed@barnat.com](mailto:ed@barnat.com). And as always, if you can (especially on April 28<sup>th</sup> and May 26<sup>th</sup>) — catch me on the radio! ■

## Pop'Comm April 2001 Survey

	Circle Reader Service#		
		wideband coverage and remains in the vehicle	16
		Is a mobile CB radio	17
		Is a handheld CB radio	18
		Is a FRS radio	19
<b>1. Which is the most important to you when purchasing a communications receiver or scanner? (Please mark all that apply)</b>			
Purchase price	1		
Features	2		
Ease of operation	3	Yes	20
Portability	4	No	21
A recent Product Spotlight	5		
Friend's recommendation	6		
Advertisements	7		
Speed of dealer delivery	8		
Trade-in value of my older receiver	9	Frequently	22
Ability of the new receiver to computer interface	10	Seldom	23
Dealer reputation	11	Never	24
Shipping cost	12		
<b>2. When I travel, my radio:</b>			
Stays at home	13	None, just me	25
Always comes with me	14	1-2 friends	26
Seldom comes with me	15	3-4 friends	27
Is a mobile ham transceiver with		More than 4	28
<b>3. Do you use the Internet to find frequencies and related scanner information?</b>			
<b>4. How often do you use the Internet to listen to radio stations?</b>			
<b>5. How many other people read YOUR copy of Popular Communications?</b>			

# HOW I GOT STARTED

**Congratulations To Grant Bingeman,  
KM5KG Of Plano, Texas**

**P**opular 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.

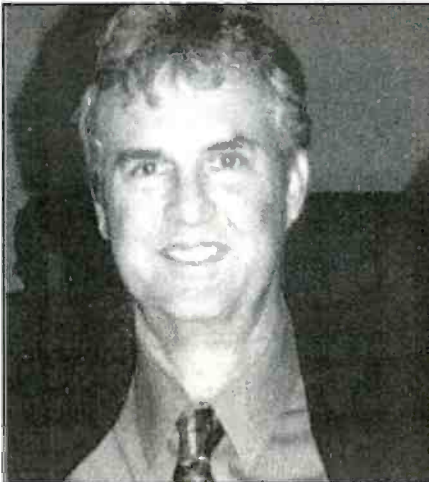
Each month, we'll select one entry and publish it here. Submit your entry only once: we'll keep it on file. All submissions become the property of Popular Communications, and none will be acknowledged or returned. Entries will be selected taking into consideration the story they relate, and if it is especially interesting, unusual, or even humorous. We reserve the right to edit all submitted material for length, grammar, and 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. If you're E-mailing photos, please send them in a separate E-mail with your name in the "subject" line.

*"Imagine being able to talk to somebody via Morse code on the other side of the world where telephone service might not even exist —"*

## Our April Winner

From Texas, Pop'Comm reader Grant Bingeman says, "Back in 1961 in Los Angeles I had a crystal radio that could tune a little above the standard broadcast band, and one night I heard a police cruiser. This was a mysterious and amazing event for an 11-year-old kid, so I wrote a short note to the LAPD asking how was it possible that I could hear police conversations on my little radio. A few days later I returned from school to see a police motorcycle parked in front of my parents'



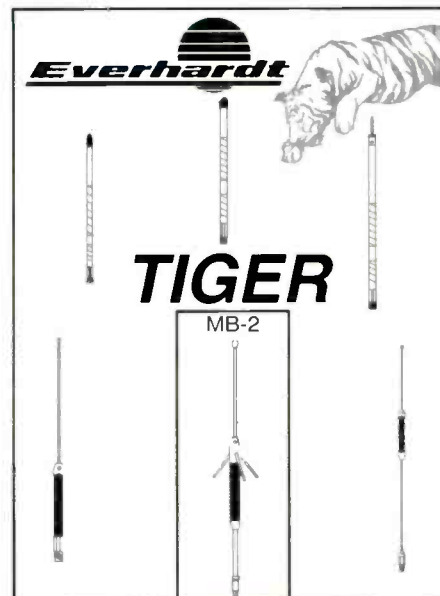
Grant Bingeman, KM5KG.

house. When I walked inside, my mother introduced me to Officer Glen Stone. I thought I was in trouble, until I eventually realized he was there to explain to me how a resonant circuit worked. I really didn't understand what he was talking about until later.

Well, it turned out that Glen Stone was a ham radio operator, and he sparked my interest in shortwave communication. In fact I took my Novice ham radio exam at his home in Encino. Glen was kind, patient, and modest, and public relations asset for the LAPD. Back then the world was a much bigger place, and shortwave communication was pure magic, like something from a Tom Swift book. Imagine being able to talk to somebody via Morse code on the other side of the world where telephone service might not even exist — before satellites, and way before the Internet. I guess you had to be there. Instant and cheap long-distance communication is taken for granted these days. To tell the truth, I liked the world better then.

P.S. Know what I used for an antenna? The bedsprings of the top bunk."

Grant Bingeman, KM5KG  
Principal Engineer,  
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# PRODUCT SPOTLIGHT

Pop\*Comm Reviews Products Of Interest

## RadioShack HTX-252 Amateur 2-Meter Mobile Transceiver

RadioShack is always full of surprises. A browse through their catalog never fails to be an odyssey into electronic product trivia. Just when I think that I am pretty well familiar with RadioShack's product line, I manage to find some hidden treasure within those pages, or perhaps somewhere behind the counter of my local RadioShack outlet. The "Shack" may not be the first place experienced hams turn to when shopping for a new rig. Nonetheless, it's time to shed the image, held by some, of RadioShack's amateur product line catering largely to newly licensed hams. If you are considering a new amateur 2-meter mobile transceiver, then you may well want to ponder the HTX-252. This rig presents an uncluttered, clean appearance and simplified functionality. And its list of features is impressive.

Is it time for a new rig? When I fired up my 10-year-old 2-meter mobile one day last week, the LCD display had magically translated the frequency numerals and functional icons that we all understand, into what appeared to be Chinese characters. Ah! An undocumented feature. But, it was pretty useless. After determining that the condition was not due to a transient static charge and after considering the logistics involved in getting the unit repaired, I decided to declare the well-worn rig "junk." In choosing a suitable replacement 2-meter mobile, I decided to go "simple" this time. Rather than spend another \$400 plus for a top-of-the-line rig with every bell and whistle imaginable, I would enjoy uncompromised basic functionality. I selected the Radio Shack HTX-252 and was delighted to see that the features most used by hams are standard equipment.

DTMF Touch Tone style signaling and all 38 standard CTCSS tone squelch codes on both transmit and receive are among the carefully selected goodies found in the HTX-252. So many state-of-the-art 2-meter and 440 MHz ham rigs do not include CTCSS decode on receive. Adding optional decode boards can cost \$30 to \$50 dollars or more. That's money saved when purchasing an HTX-252.



The RadioShack HTX-252 2-meter mobile.

This unit also has two really nice features not mentioned in the catalog. One is a scanning function, for either VFO or the memory channels. The other is a priority channel scan that can scan between the frequency set in the VFO and any memory channel (except the call channel memory location), or between two frequencies set in the VFO. It should be noted that whenever the HTX-252 is powered off, then on again, whether by the on-off switch or by disconnecting power at its source, the rig always defaults back to the previous VFO setting. So, when operating this unit, the basic thing to do is to make a habit of keeping your main operating frequency and mode in the VFO when not using the VFO to tune other frequencies.

### Tuning The 252

Tuning is provided by means of the more advanced digital PLL synthesizer. There are ten memory channels and one separate call channel function. The call channel is preset to National Simplex, 146.52 MHz, but is user programmable to other frequencies and to repeater offsets. Are 11 memory channels enough, I had to wonder? My old rig, though a premium model for its time, had 21 memory slots. This was modest when compared to many current production models with dozens and dozens of memories. The

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***“What is surprising is that this unit is user programmable for an extended transmit frequency range of 142.00 to 149.885 MHz!”***

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reality was, though, that I only actually used about four of the memory slots in ten years of mobile 2-meter hamming in several regions of the country. Ten will be plenty for most of us.

Still, there's more to the tuner. Like nearly every modern 2-meter mobile, the HTX-252 has an extended receive range of 136.00 to 174.00 MHz. And the default transmit frequency range is 144.00 to 148.00 MHz, not surprisingly. What is surprising is that this unit is user programmable for an extended transmit frequency range of 142.00 to 149.885 MHz! This is excellent for authorized MARS and Civil Air Patrol users. Qualified individuals from these groups can acquire the HTX-252 and get on the air immediately, without having to mail in paperwork and without waiting for factory modifications. Also, the repeater offsets, which default to the standard 600 kHz, can be user extended to a split of 8.0 MHz. This may allow for public safety crossband operation in those rare disaster situations where such operation may become autho-

BY ALAN DIXON, N3HOE / KST8678 <N3HOE@JUNO.COM>

rized. Additionally, there are two transmit power levels: 10 watts and 25 watts.

Once again, I had to wonder. Is 25 watts enough transmitter output power? Consider this scenario: The N3HOE mobile station has three transceivers permanently installed. One is a cellular phone. It is not the standard 600-milliwatt handheld. It is a true 3-watt mobile, the maximum transmitter power allowed in that service. Next, there is an SSB 11-meter rig. Likewise, it is not the standard 4-watt AM CB set. SSB units run 12 watts, the maximum power allowed in that service. Now, on 2-meters, the maximum legal power is 1,000 watts. Obviously, nobody runs anything near that kind of power in a mobile. Then how much power is enough? Let's consider something else. What is the longest distance across which a radio signal has ever been sent, and how much transmitter power was used. The answer, of course, involves a deep space probe. In 1972 Pioneer 10 was launched. Twenty-nine years and 6.2 billion miles later (that's right, billion with a b!), this spacecraft is still sending signals back to earth. And its transmitter runs a mere 8 watts output! No, you won't get around the globe on VHF at any power level, but in general theory at least, less than 10 watts will get you partway across the universe. Fact is in my previous ten years of mobile 2-meter use, I never successfully used power higher than the 10-watt level, anyway. Twenty-five watts on 2-meters works fine for me.

## A Compact Rig!

The HTX-252 is compact, and built rock solid. The unit is 1 1/4 inches high, 5 3/25 inches wide, and 5 1/2 inches deep, including its large heat sink. Its front panel has the requisite backlit multi-function LCD display basically centered, though just a bit to the right. At the far right is the main tuning knob for frequency or preset channel selection. The volume and squelch knobs are located to the left of the display, in an over-under fashion. The volume control is the one on top and it has the on-off function as well. The squelch knob is located below the volume control. To the far left, you will find the microphone plug. Happily, it is the standard 8-pin type used on many amateur and commercial transceivers. As the RadioShack catalog describes it, the 8-pin jack allows easy connection to an "alternative microphone" or to a packet TNC. The 8-pin plug is readily available

and easy to fit onto a mic cable. In contrast, a number of other newer amateur rigs use the trendy RJ type modular connectors that require using an expensive crimping tool.

Below the LCD display lie three push-buttons. The button to the left is the REV repeater reverse offset control. The center button VFO (T-SQ) has a dual function. Pressing this selects the VFO mode as opposed to the memory channel mode. When pressed after F function on the mic is pressed, this button toggles between the CTCSS modes. The user can select no tone squelch function, tone on transmit for closed repeater access, or total tone squelch on receive, to block out unwanted reception of co-channel repeaters. The button to the right, MR (MS) also has dual functionality. It puts the unit into memory channel mode when pressed. When pressed after F on the mic is pressed, whatever frequency, offset, and CTCSS information appears in the VFO is then stored into one of the memory channels. Amazingly, that's it for the front panel! A good portion of the HTX-252's control is actually found at the hand microphone.

The HTX-252's microphone gives the user a number of important functions, right in the palm of the hand. The mic itself has a condenser-type element with an FET amplifier. There are 16 DTMF buttons for activating phone patches and repeater controllers. The mic has a sliding DTMF lock switch below the DTMF pad. On top of the mic are both up and down frequency buttons that operate both the VFO and the 10 memory channels. On the left is the Push-to-Talk (PTT) button. Along the top front, just above the DTMF pad are four function buttons. Among these, the one on the left is the F (MHz) button. Pressing this once activates the "Function" that allows the alternate functionality of several other buttons on the rig. Immediately after this F button is pressed, in fact, pressing the PTT button causes the transmit power to toggle between its two settings. Pressing and holding the F button causes the squelch to open while it is being held down. This is a useful feature when using CTCSS on receive, to see if any blocked out stations are using the channel. It is also useful when working a distant station fading in and out of the squelch threshold. There's no need to disturb your existing squelch setting.

The second button from the left, CALL (STEP), takes you directly to the programmed call channel. It can be used to toggle back and forth between the call channel and whatever the previous chan-

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nel was, whether VFO or memory. Immediately after function button F is pressed, pressing CALL (STEP) allows the user to set the frequency increment step. This setting can be 5, 10, 12.5, 15, 20, or 25 kHz. Default step is 5 kHz. The next button to the right controls both the scan and priority scan functions already described, above. Simply touch SCAN (PRI) and the HTX-252 scans from VFO or from memory, whichever mode was being used at that moment. Or, pressing this button immediately after pressing function button F brings you into the priority monitoring mode. The LOCK

(SHIFT) button is on the far right of the hand mic. Touching this locks all controls on the entire rig except itself, PTT, F, and the volume and squelch knobs. Touching LOCK again or powering the unit off and on unlocks the controls. To set a repeater offset, press this button immediately after pressing function button F. Nonstandard repeater offsets are accepted in all memory locations and in the VFO.

The backlit LCD display has large, easy-to-read frequency numerals. Along the bottom is a straight-line multi-segment bar graph indicating receive signal strength and relative transmit signal

output. There are icons indicating "BUSY" condition, "SCAN" while scanning, "PRI" while in priority mode, "T" and "T-SQ" for the various CTCSS conditions, "LOW" while on low transmit power, "ME" while storing or scanning memory locations, and of course "TX" while transmitting. Additionally, the HTX-252 display shows icons for repeater offset, control lock on (but not for DTMF-only lock), and F (function) button pressed.

## How's The Receiver?

The dual conversion receiver section of the HTX-252 boasts an excellent image rejection ratio of 65 dB and adjacent channel selectivity of 55 dB at 25 kHz channel spacing. Its IF rejection ratio is rated at 90 dB. Normal distortion is 2 percent at 1 mV input, 3 kHz modulation and maximum sensitivity is -14 dBuV at 12 dB SINAD.

This 2-meter mobile is fun to operate since it is a breeze to learn. Its simplicity makes its form and function more like a commercial VHF transceiver than an amateur rig. In my first week of operation with the HTX-252, I worked '52 simplex, brought up repeaters, made an autopatch telephone call, and listened to Shuttle astronauts via a terrestrial repeater. And I know that it will work the new International Space Station when it is populated. Yep. Does everything I want it to do! My previous 2-meter rig had a fancy cellular phone style DTMF handset. While I will miss that handset dearly, I can't help but note that with so many localities outlawing cellular handset use, I could have easily been mistaken for a criminal cell-phone-using driver! It's safer, perhaps in more ways than one, to be back to the now politically correct hand mic.

There was also a final factor in my personal choice of the HTX-252. If this rig finally toasts itself after many years of service, I know where to go for repairs. And RadioShack is pretty quick about getting them done, from my experience. No boxing up the unit, paying to insure and ship it, then waiting weeks and weeks to get it back. I simply drop the over-worked product off at a nearby RadioShack store and say, "See you in a week or two!" After all, nobody gets excited about riding in silence and staring at a gaping hole in their dashboard or console for a month or so while their rig is in the shop. I'm actually very impressed with the set's features! ■

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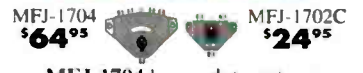
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# Pop'Comm's World Band Tuning Tips

April 2001

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.

UTC	Freq.	Station/Country	Notes	UTC	Freq.	Station/Country	Notes
0000	9885	Swiss Radio Int'l		0230	11885	Far East Broadcasting Assn, Seychelles	
0000	11830	Vatican Radio		0245	13780	Deutsche Welle, Germany, via Rwanda	
0000	9445	Voice of Turkey		0300	7175	Radio Tikhy Okean, Russia	RR
0000	4960	Radio Vanuatu		0300	9765	Voice of Russia	
0000	15400	UAE Radio, Dubai, UAE		0300	7215	Trans World Radio, via South Africa	unid.
0000	15460	Radio Thailand		0300	3320	SABC, South Africa	Atk
0000	12005	RTV Tunisienne, Tunisia	AA	0300	13770	Radio Portugal	PP
0000	5047	Radio Lome, Togo	FF	0300	11740	Radio Romania Int'l.	
0000	7275	RTV Tunisienne, Tunisia	AA	0300	9570	Radio Romania Int'l.	
0000	9525	Voice of Turkey		0300	11655	Qatar Broadcasting Service	AA
0000	7130	Radio Taipei Int'l., Taiwan		0300	15190	Radio Filipinas, Philippines	
0030	13790	Swiss Radio Int'l., via Germany		0300	6458.5	AFN/AFRTS, Puerto Rico	USB
0030	9495	Radio Sweden		0300	9760	VOA relay, Philippines	
0030	15596	Voice of Russia		0300	6673	Radio Andina, Peru	SS
0030	11945	UAE Radio, Abu Dhabe, UAE	AA	0300	6956.5	La Voz del Campesino, Peru	SS
0030	9797	Voice of Vietnam, via Canada		0300	3340	Radio Altura, Peru	SS
0030	6080	VOA Relay, Sao Tome		0300	4890	NBC, Papua New Guinea	
0045	9620	Radio Exterior de Espana, Spain	SS	0300	9780	Republic of Yemen Radio	AA
0100	11600	Far East Broadcasting Assn, Seychelles		0300	9735v	Radio Nacional, Paraguay	SS
0100	9870	Radio Korea Int'l., S. Korea		0300	3235	Radio West New Britain, Papua New Guinea	Pidgin
0100	5020	Solomon Islands Broadcasting Corp.	Pidgin	0300	4845	Radio Mauratinie, Mauritania	AA
0100	11550	KHBI, Saipan, No. Marianas	CC	0300	17765	Radio New Zealand Int'l.	
0100	4980	Ecos del Torbes, Venezuela	SS	0330	17725	Radio Jamahiriya/V. of Africa, Libya	AA/EE
0100	4940	Radio Amazonas, Venezuela	SS	0330	11655	Radio Netherlands relay, Madagascar	DD
0100	11955	BBC relay, Thailand		0330	11990	Radio Kuwait	
0100	9525	Channel Africa, South Africa		0330	6055	Radio Tampa, Japan	JJ
0100	18960	Radio Sweden		0330	13620	All India Radio	
0130	11640	World Beacon, via South Africa		0330	4800	Radio Buenas Nuevas, Guatemala	SS
0130	9445	Radio Slovakia Int'l.		0330	5765	AFN/AFRTS, Guam	USB
0130	9880	Herald Broadcasting, via Russia		0330	15330	KTWR/Trans World Radio, Guam	
0130	9710	BBC relay, Singapore		0330	4930	Radio Costena, Honduras	SS
0130	9810	Radio Ukraine Int'l.		0330	11625	Adventist World Radio, Guam	Hindi
0200	15425	Sri Lanka Broadcasting Corp.		0355	6145	Radio Japan/NHK, via Canada	
0200	15250	VOA relay, Sri Lanka		0400	5500	Voice of the Tigray Revolution, Eritrea	vern.
0200	17870	Channel Africa	PP/EE	0400	6940	Radio Fana, Ethiopia	vern.
0200	1100	Radio Singapore		0400	15400	YLE/Radio Finland	
0200	10940	AFN/AFRTS, Sicily, Italy	USB	0400	9900	Radio Cairo, Egypt	AA
0230	11820	Broadcasting Service of Kingdom of Saudi Arabia	AA	0400	4975	Fujian Peoples Bc. Station, China	CC
0230	7230	Radio Slovakia Int'l.		0400	6249	Radio Nacional, Equatorial Guinea	SS



UTC	Freq.	Station/Country	Notes	UTC	Freq.	Station/Country	Notes
0400	15410	Deutsche Welle, Germany, via Antigua		1330	15245	Radio Nacional Congolaise,	
0400	4960	Radio Villa, Dominican Republic	SS	1330	13610	Radio Damascus, Syria	FF/EE
0400	7255	Voice of Nigeria		1345	15140	Radio Sultnate of Oman	
0400	11690	Radio Jordan		1400	9835	Radio Budapest, Hungary	
0400	9525	Voice of Indonesia	II	1400	13640	Radio Telefis Eireann, Ireland, via Canada	
0400	11615	Radio France Int'l.		1400	11690	Voz Cristiana, Chile	SS
0400	9735	Radio Sultanate of Oman	AA	1400	14670	CHU, Canada (time signals)	FF/EE
0400	17680	Radio Jordan		1400	13750	All India Radio	
0400	5100	Radio Liberia		1430	4052.5	Radio Verdad, Guatemala	SS
0400	6130	Lao National Radio, Laos	LL	1430	9745	HCJB, Ecuador	
0430	9675	RAI International, Italy		1430	9435	Voice of America, via Greece	
0430	15250	RAI International, Italy	II	1430	4950	Radio Baha'l, Ecuador	SS
0430	17825	Radio Japan/NHK		1445	9625	CBC Northern Service, Canada	
0430	15785	Galei Zahal, Israel	HH	1500	5030	University Network, Costa Rica	
0500	6973	Galei Zahal, Israel	HH	1500	4915	Ghana Broadcasting Corp.	
0500	11605	Kol Israel	HH/EE	1530	11955	Radio France Int'l., via Gabon	FF
0500	6155	Radio Telefis Eireann, Ireland, via England		1530	3300	TGNA-Radio Cultural, Guatemala	
0500	11590	Kol Israel	HH	1530	15205	VOA via Greece	
0500	15084	Voice of Islamic Republic of Iran	AA	1530	15475	Africa Number One, Gabon	FF
0500	11787	Radio Iraq Int'l.	AA/EE	1530	9730	China Radio Int'l., via French Guiana	
0500	4754	Radio Republic of Indonesia, Ujung Pandang	II	1600	6040	Deutsche Welle, Germany, via Canada	
0530	15075	All India Radio		1630	9580	YLE Radio Finland	Finnish
0600	15185	Radio Africa, Equatorial Guinea		1630	6175	BBC via Canada	
0600	11402	Icelandic State Broadcasting	Ice. SSB	1630	18950	Radio Denmark, via Norway	DD
0600	10320	AFN/AFRTS, Iceland	USB	1630	7475	Voice of Greece	Greek
0630	11905	Radio Budapest, Hungary	HH	1700	9820	Radio Havana Cuba	
0700	3250	Radio Luz y Vida, Honduras	SS	1725	13750	Radio Havana Cuba	
0730	10320	AFN/AFRTS, Hawaii		1730	11600	Radio Prague, Czech Republic	
0815	15420	BBC, via South Africa		1800	11985	Radio Vlaanderen Int'l., Belgium, via Bonaire	
0830	11800	RAI International, Italy		1800	9925	Radio Vlaanderen Int'l., Belgium	
0845	15355	Radio Sultanate of Oman	II	1800	6035	VOA relay, Botswana	
0900	15180	Radio Pyongyang, North Korea		1830	4525	Nei Menggu PBS, China	CC
0900	13760	Radio Pyongyang, North Korea		1830	5025	Radio Rebelde, Cuba	SS
0900	5003	Radio Nacional, Equatorial Guinea	SS	1830	6070	CFRX relay CFRB, Canada	
0900	4800	Radio Lesotho		1830	9635	Radio Nacional, Colombia	SS
1000	11950	Radio Free Asia, USA, via Saipan	CC	1830	7405	China Radio Int'l.	
1000	12020	Voice of Vietnam		1830	7400	Radio Bulgaria	
1000	11710	Radio Pyongyang, North Korea		1900	9830	Croatian Radio	Croatian
1030	9590	Radio Norway Int'l.	NN	1900	11735	Radio Nova Visao, Brazil	PP
1030	5020	La Voix du Sahel, Niger	FF	1900	11700	Radio Bulgaria	
1045	9590	Radio Netherlands, via Bonaire		2000	11915	Radio Gaucha, Brazil	PP
1100	3270	Namibia Broadcasting Corp.		2000	11955v	Radio Nacional, Angola	PP
1100	9870	Trans World Radio, Monaco		2000	11925	Radio Bandeirantes, Brazil	PP
1100	3290	Voice of Guyana		2000	9655	Radio Austria Int'l.	GG
1100	4725	Radio Myanmar (Burma)	BB	2030	21740	Radio Australia	
1100	7125	Voice of Russia, via Moldova		2030	9945	Radio Denmark, via Norway	DD
1100	13700	Radio Netherlands	DD	2100	9580	Radio Australia	
1130	15345	RTV Marocaine, Morocco	AA	2100	17660	HCJB, Ecuador	
1130	3280	La Voz del Napo, Ecuador	SS	2100	9915	BBC	
1200	7185	RTV Marocaine, Morocco	AA	2100	9615	KNLS, Alaska	
1200	15240	Voice of America, via Morocco		2100	11734	Voice of Tanzania, Zanzibar	Swahili
1200	11770	Radio Mexico Int'l.	SS/EE	2130	6115	Radio Tirana, Albania	
1200	9705	Radio Mexico Int'l.	SS	2130	12095	BBC, via Ascension Island	
1200	13620	Radio Kuwait	AA	2130	5075	Voice of Pujiang, China	CC
1200	6185	Radio Educacion, Mexico	SS	2200	9755	Radio Canada Int'l.	
1200	3380	Malawi Broadcasting Corp.		2200	3365	Radios Cultura, Brazil	PP
1200	4760	ELWA, Liberia		2230	15476	Radio San Gabriel Arcangel, Antarctica	SS
1230	6120	Radio Vilnius, Lithuania		2245	16160	Radio Algiers Int'l., Algeria	
1300	7295	Radio Malaysia		2300	11710	Radiodifusora Argentina al Exterior	
1300	5060	Radio Progreso, Ecuador	SS	2315	7270	Radio Tirana, Albania	
				2330	9965	Voice of Armenia	
				2330	6090	Caribbean Beacon/University Network, Anguilla	

# PRODUCT PARADE

Review Of New, Interesting And Useful Products

## New Midland Handheld CB 33% Smaller

Midland Consumer Radio has announced their new model 75-785 full-power handheld CB as a replacement for their popular model 75-784. The 75-785 is 33% smaller than its predecessor. Lightweight, yet powerful, this 40 channel handheld CB is perfect for camping, fishing, hunting, or any other outdoor use. The 75-785 has a power saving setting that helps extend battery life. The unit operates on nine "AA" batteries (not included) or the supplied 12 Vdc vehicle adapter. Plus, NiCd or NiMH batteries are easily rechargeable while still in the unit, when used with the optional wall charger.

A bright LED display shows your channel selection, and includes low-battery-transmit indicators. The large speaker and electronic microphone ensure quality sound. External jacks provide for the addition of an optional speaker microphone or headsets (both available separately) and the antenna jack accepts the supplied flexible rubber antenna or



Midland's 75-585 handheld 40-channel CB.

other antennas (adapter may be required — not included).

The 75-785 CB measures 2-1/8"W x 7"H x 1-3/4"D and has an MSRP of \$79.95, with an expected street price of \$49.95 to \$69.95.

Midland Consumer Radio is the oldest manufacturer of CB radios in the U.S., and a leader since 1959. Midland has stayed on the forefront of two-way radio technology, offering the latest features at value prices. They offer a full line of CB and FRS handheld and mobile radios, marine radios, antennas, and accessories.

For more information, contact Midland Consumer Radio, Inc., 1670 N. Topping Ave., Kansas City, MO 64120-3865; phone 816-241-8500; fax 816-241-5713; E-mail [midlndcb@midlandradio.com](mailto:midlndcb@midlandradio.com), or visit Midland's Website at [www.midlandradio.com](http://www.midlandradio.com).

## Latest NOAA Weather Info Technology Travels With You

The National Weather Service has said that everyone should have a weather alert radio in their home or office, so why wouldn't you want one while you travel? Midland has announced a new NOAA Weather/Hazard alert radio that puts the latest technology in the palm of your hand. Their new model 74-250 operates on only 2 "AA" batteries, yet features the latest Specific Area Message Encoding (SAME) technology to alert you to storms and hazards only in the areas you want, down to a single county. Up to 56 specific types of alerts (tornado, thunderstorm, flood, etc.) are displayed on the backlit LCD, letting you know what conditions are threatening.

As the National Weather Service issues a severe storm alert, many of the weather radios in the area will not sound the alarm, simply because these radios are turned off, and the potential they have for saving lives is eliminated. Why would someone turn off a device that warns of unsuspected dangers? Bob Jehle, Midland's director of sales, says "because watches and warnings picked up by standard weather radios are for areas up to



The Midland 74-250 Weather Radio fits in your hand and is loaded with features!

100 miles away, and the only way to silence these unwanted alerts is to turn off the power. To eliminate this problem, the Midland 74-250 weather radio, like their model 74-200 and 74-210 home units, uses SAME technology, developed by the U.S. Weather service. Up to nine different counties can be programmed into this portable unit at one time, so as you camp, hunt, boat, or travel on vacation, you can have the same convenience and safety as at home, knowing if an alert sounds it is for your area."

The bright yellow and black 74-250 has many other convenient features, including a built-in clock with two alarms, date display, and snooze. A convenient Fahrenheit and Celsius thermometer can sound an alert when the temperature drops below freezing, reminding you to take extra precautions with camp supplies or while driving. The water-resistant, contour design with rubberized grip fits comfortably in the palm of your hand. Up-to-the-minute information is available at the push of a button on any of the seven NOAA weather channels, even up to 50 miles away.

The 74-250 measures 2-3/8"W x 4"H x 1-1/4"D, and has a general retail price of \$69.95 each. In addition to being the industry leader in weather/hazard alert radios, Midland Consumer Radio is the

BY HAROLD ORT AND R.L. SLATTERY

oldest manufacturer of weather radios in the U.S., and was the first to introduce an alert weather radio. Midland has stayed on the forefront of radio technology, offering the latest features at real value prices.

For more information, contact Midland Consumer Radio, Inc., 1670 N. Topping Ave., Kansas City, MO 64120-3865; phone 816-241-8500; fax 816-241-5713; E-mail midlndcb@midlandradio.com, or visit Midland's Website at www.midlandradio.com.



Everhardt's EV-NOTCH-1 Notch filter eliminates CB from your AM/FM radio.

## Everhardt Antennas New Notch Filter

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## National Radio Club's AM Radio Log

This is one super asset that every dedicated radio enthusiast should own! Wayne Heinen, editor of the Log has done a super job with their 21<sup>st</sup> Edition that's a full 320 pages long, three-hole punched ready for your loose-leaf binder. Radio station listings from the U.S. and Canada include up-to-the-last minute info on new X-Band stations (1605-1705 kHz).

Each station listing consists of its location, frequency, call, format, network affiliation, station address, station slogan,

day and night transmitter powers. There are even cross-references by city and call station letter.

To order, contact the Publications Center at Box 164, Dept. W, Mannsville, NY 13661-0164. Prices for the latest AM Radio Log are (if you're in the NRC or IRCA your price is \$16.95) otherwise for U.S. and Canada, \$22.95; Latin America, \$24; Europe, \$25 and all others, \$28.) Price is postage paid to your location. Make checks payable to the National Radio Club, Inc. which is a non-profit radio club, devoted to the mediumwave DX hobby. Sorry no COD or Net Account orders accepted.

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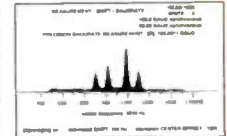
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Many radio amateurs and SWLs are puzzled! Just what are all those strange signals you can hear but not identify on the Short Wave Bands? A few of them such as CW, RTTY, Packet and Amtor you'll know - but what about the many other signals?

There are some well known CW/RTTY Decoders but then there is CODE-3 GOLD. It's up to you to make the choice, but it will be easy once you see CODE-3 GOLD. All units have an exclusive auto-classification module that tells YOU what you're listening to AND automatically sets you up to start decoding. No other decoder can do this on ALL the modes listed below - and most more expensive decoders have no means of identifying ANY received signals! Why spend more money for other decoders with FEWER features? CODE-3 GOLD works on any IBM compatible computer with MS-DOS with at least 640kb of RAM, and a VGA monitor. CODE-3 GOLD includes software and a complete audio to digital FSK converter.



Simulated Speed Measurement Module

Modes included in BASIC package	Modes included in STANDARD and PROFESSIONAL package
<ul style="list-style-type: none"> <li>• Morse *</li> <li>• RTTY/Baudot/Murray *</li> <li>• Sitor CCIR 625/476-4 ARO - Navtex *</li> <li>• AX25 Packet *</li> <li>• Facsimile all RPM (up to 16 gray shades at 1024 x 768 pixels *</li> <li>• Hellsreiber-Synch/Asynch *</li> <li>• ASCII *</li> <li>• Pactor *</li> <li>• WEFAX *</li> </ul>	<ul style="list-style-type: none"> <li>• Autospec - Mk's I &amp; II</li> <li>• DUP-ARQ Artrac</li> <li>• Twintrex</li> <li>• ARQ6-90/98</li> <li>• SI-ARQ/ARQ-S</li> <li>• SWED-ARQ-ARQ-SWE</li> <li>• ARQ-E/ARQ1000 Duplex</li> <li>• ARQ-N ARQ1000 Duplex Vanant</li> <li>• ARQ-E3-CCIR519 Vanant</li> <li>• POL-ARQ 100 Baud Duplex ARQ</li> <li>• TDM242/ARQ-M2/4-242</li> <li>• TDM342/ARQ-M2/4</li> <li>• FEC-A</li> <li>• FEC100A/FEC101</li> <li>• FEC-S • FEC1000 Simplex</li> <li>• Sports info 300 baud ASCII</li> <li>• Sitor • RAW (Normal Sitor but without Synch.</li> <li>• ARQ6-70</li> <li>• Baudot F788N</li> <li>• Piccolo</li> <li>• Coquelet</li> <li>• 4 special ARQ &amp; FEC systems: TORU-10/11, ROU-FEC/ RUM-FEC, HC-ARQ (ICRC) and HNG-FEC</li> <li>• SYNOP decoder</li> </ul>

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# UTILITY RADIO REVIEW

News, Information, And Events In The Utility Radio Service Between 30 kHz And 30 MHz

## Computer-Assisted Radio Monitoring On HF

I happen to be part of that generation of shortwave listeners who started by using shortwave radios with tubes and analog dials. It used to be a real art to be able to nail a DX station by knowing roughly where on that dial a station's frequency was located. Frankly you often had to wait for the station to announce its exact frequency before you had an accurate logging.

All of that has changed, of course, thanks to microchips and processors — particularly with their integration into the circuits of today's modern radio receivers. The result is that rather than having to "guestimate" where a station is lurking, you just look at your digital read out and write it down with an accuracy that can be up to 1 Hz.

Better still, you can now program your receiver to scan over specific ranges of frequencies so that you can increase your chances of being at the right place at the right time when a good DX station (or even a local ute that you have been trying to log) comes on the air.

What many people do not realize is how useful a tool the personal computer (PC) is becoming when it comes to assisting you with your radio monitoring needs. What is even more interesting is the fact that you do not have to use a brand new "state-of-the-art" computer in order to get the most benefit from many software packages that are available today. Often an early Pentium computer, or even an old, but fast 486, will provide all of the computing power that you need.

When I first started out researching this topic, my beginning point was the demodulation of digital signals that are on the air today. What I found was that there are many more ways to use a PC than to view RTTY text on a computer monitor.

I think that there is a very good possibility that within the next five years (if that), the "state-of-the-art" monitoring radio that most people will be purchasing will be a "black box" that will be connected between an antenna and a computer. Rather than the traditional

knobs and buttons, a computer program will control all of the functionality, and the sound of the radio will be coming out of the computer's speakers.

It may even get to the point where we may come to see the radio being placed outside with the antenna, or at least some distance away from the computer. This will be done in order to minimize traditional lead-in losses and isolate the set away from computer hash and household electrical noise.

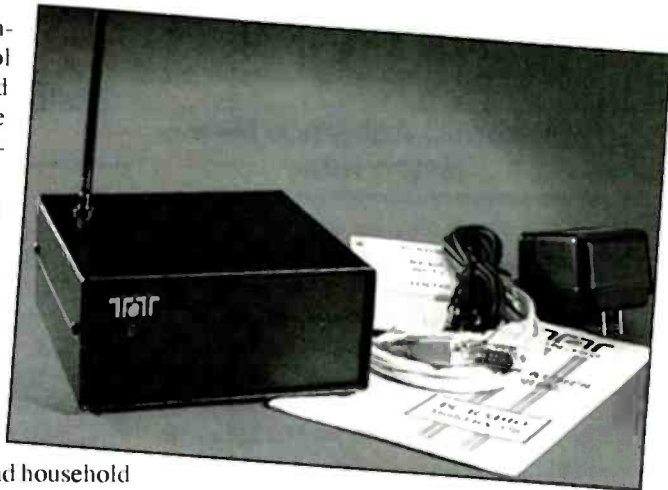
On the other hand the radio may in fact end up inside of the computer, where it could be used to distribute radio signals through a local area network so that many different people could perform radio monitoring at the same time. The latter scenario could be the solution for those who face antenna restrictions in their neighborhoods or place of residence.

Whatever the case, our next generation of radios to be used for monitoring shortwave or longwave utility stations sure won't be the one's our Dads (or Moms) used to listen to — you can bet on that.

In this month's column I'm going to do a brief overview of the three types of software that you can use with a PC that will make your ute monitoring much easier. These types of software are;

- Digital signal demodulating
- Computer control of a radio
- Digital Signal Processing

You could also include the logging of your monitoring sessions using a computer (and I will be talking about such software packages later this year). What I am interested in discussing in this month's column are those software programs that act directly upon the monitoring radio itself — either through control of its operation or the processing of the audio signals that the radio produces.



*Is this a picture of the future of monitoring radios? The Ten-Tec 320 tunes 100 kHz to 30 MHz in a black box that attaches to your computer. (Photo courtesy Ten-Tec, Inc.)*

Each of these topics could be a column by themselves, but I'm simply going to introduce them and talk about how they can be used. During the following months I am going to be reviewing specific software and hardware options that you can use with your monitoring radio.

What is going to be the most interesting part of this examination is how surprisingly affordable many of these software packages can be — some are completely free.

And yes, we have lots of good logs for this month. Even though many of our regular contributors have been busy with home- and work-related tasks, they have been diligently sending in whatever logs they have been making. Again they are to be thanked for their efforts.

While it is really good that they are hanging in there and making their contributions, it makes it all the more important for each of you reading this column to send in some of your logs each month — even if it is only one. In the end they all add up and help contribute to the success of the logging section of this column.

So enough of the housekeeping, let's

BY JOE COOPER <ur-review@provcomm.net>

get to this really fascinating topic of computer-controlled radios.

## Computer Basics For Radios

Since the 1970s the radio industry has increasingly used solid-state amplifying and switching technology within RF circuit design. The most common form has been transistors and diodes, which most people are familiar with. These devices were used primarily for amplification, filtering, and the rectification of RF signals into audio. Some of the earliest radios from this period were hybrid mixes of both tube and transistor technology.

Throughout that period great advances took place in the miniaturization of solid-state devices, enabling the development of extremely small, integrated devices. As a result, complex circuits that once required a great deal of space were reduced to the point where hundreds of transistors and other electronic components could literally fit on the head of a pin.

One of the great advances that came out of the development of the integrated circuit was the development of the microprocessor. This is an electronic device that can perform multiple pre-defined tasks in multiple steps in a very short period of time. Most of us are familiar with the most popular use of the microprocessor today — the personal computer.

We have all seen how computer software — such as a word processor package — is used to do work with the PC. Likewise most people understand that in order to use that software you also have to have an operating system, with names such as DOS, Microsoft Windows or Unix.

However, many people still do not realize how computerized their modern monitoring radio equipment has become during the same period of time. Since the mid-1970s increasing amounts of processing power has been added to the RF circuitry of the radios. Some of the tasks have been simple, such as displaying a frequency using a florescent or Liquid Crystal Display (LCD). Others have come to be more complex, such as the processing of RF and audio signals as it is being tuned within the radio.

The slow but steady inclusion of greater processing power into the modern monitoring radio has made the reception of many different types of radio signals easier than ever. Likewise tuning over a broad range of frequencies is a snap with today's radios having the ability to store up to 1000 frequencies. It is now possible to

scan hundreds of frequencies in a short period of time, making the capture of rare utility stations easier than ever before.

Likewise, the ability of the radio operator to program many of the functions found in the modern radio allows for flexible configuration of such sets with the push of a button. You can now fine-tune your radio to accommodate many different types of signals, modes and radio programs.

However, the radio manufacturers face one remaining problem with their development of such technology — the people who end up using it.

At this point in time many radio manufacturers could market a radio that is nothing more than the aforementioned "black box" into which an antenna is plugged in, and audio comes out. That type of radio, using existing computer technology, could be programmed to perform a wide range of tasks, and deliver optimum results at the speaker — without any type of control being on the box itself.

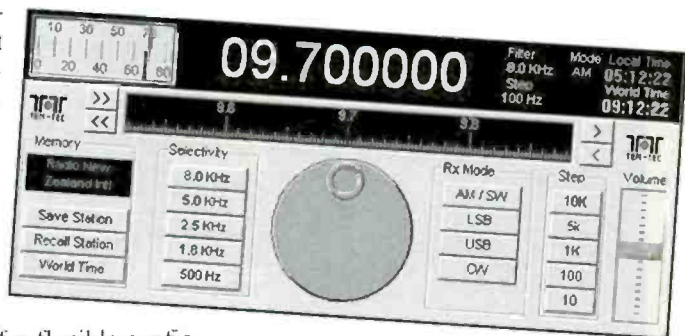
The problem is that people like to tweak and twiddle with dials and buttons, and feel like they are in control of their radio. Likewise people also have come to have a very persistent image of what a monitoring radio is suppose to look like. Even though this image is more appropriate to the mid-20th century, it is what people expect to see on the shelf at their local radio store when they go into make a purchase.

The truth of the matter is that most people who own a good-quality modern monitoring radio are often not getting the full performance out of their equipment. The reason for this is simple — they are still trying to use it like a radio from the '40s or '50s.

If one wishes to get the most from their investment in a good modern radio, they are going to have to change their way of thinking and start looking at their radios in a whole new way. From now on it will have to be looked upon for what it has become; that is a processor — rather than a tuner — of radio signals.

## The Computerized Approach

The biggest change in attitude towards the modern monitoring radio will be



*Here's how you will tune your receiver in the future. This is the computer-control screen for the Ten-Tec 320. Note how the programmers have to make it look like a real receiver today; but this attitude will change over time.*

towards its place in the radio shack. Rather than being out front and visible, it may well be hidden away from view. Most modern radios no longer need to be controlled directly, but rather can be connected to a personal computer and controlled through a software package.

The most common way in which the connection itself is made is through the serial port of the personal computer through the use of a serial cable. This cable is connected between the radio and the computer, and carries the necessary digital information needed for the two devices to "talk to each other."

To save costs, some radio manufacturers make this computer connection an option, so that you have to purchase a separate part in order to make it happen. In that case, you normally plug the computer into the accessory device, and then from there into the radio using another cable.

In all cases, check with the manual that came with your radio first in order to see what method of connecting your radio to a personal computer — if any — is available to you.

Once you have secured your physical connection between your personal computer and your radio, you are then ready to set-up and use an appropriate software package to perform the actual control. The simplest task that should be expected of such software is the ability to control the frequency tuned by the radio. From there the range of functions is limited only by number of programmable functions found in the radio that can be access through the software program being used.

## Controlling Your Radio

So you have properly installed and configured the software that you intend to



*This Grundig Satellit 800 is pure nostalgia in its design, and a great performer. However, it's time to begin rethinking how a radio "should" look. (Photo courtesy Grundig)*

control your radio with. What exactly can you do with it?

The simplest thing that you should be able to do with your software is type in a frequency, and have the radio tune it almost instantly. You should also be able to change modes, filter widths, and in some cases, the squelch levels.

The next most important task that you should be able to perform is to be able to set a high and low frequency between which the radio will scan. In conjunction with that you should also be able to set the frequency width for each scanned step, the timing rate of the scan, and whether to use the squelch to detect signal activity.

What this should all lead up to is the ability on the part of the software to use databases of frequency information. What you should be able to do is create lists of frequencies for a specific service (air, marine, military, etc.) and scan those in the order that you want to. These lists can be created by you using compatible software programs, or be purchased from people who create such lists.

The advantage of using a computer program, rather than the radio's own memory, is the flexibility programs have in managing large amounts of information. Rather than being limited to up to 1000 frequencies, you may be able to create and use databases of even larger sizes. Likewise many of these software programs allow you to define complex banks of frequencies that you can use to divide up a group of frequencies into more manageable chunks.

What the bottom line is for such control software is their ability to manage a list of frequencies that you want to hear in ways that the radio's front panel con-

trols cannot. You can simply listen to more frequencies with greater ease and flexibility with the software than you can by using the radio alone.

Best of all, you can really begin to make the best use of the frequencies that are posted here in the column's logs. Again, using your compatible database software, you can begin to build up your lists of frequencies from each month's logs posted here. You can either punch in the whole lot, or you can select those that you specialize in and build your list of possible targets. You then use this data with your software in order to scan known "hot" frequencies for new ute stations to monitor.

## Processing Signals

Along with controlling your modern radio with a computer, you can also use your PC to process signals or demodulate digital signals. There are many software programs today that will allow you to either view digital modes (such as CW, RTTY, SITOR, or others) as text on your computer's video screen. Likewise there are others that will allow you to process an audio signal through an almost infinite number of filter modes by using your computer's soundcard.

Digital signal demodulating techniques have taken off over the past two years. The result has been a proliferation of easy-to-use and relatively inexpensive software packages. The majority of these are available from the Internet.

There are basically two types of digital demodulators available today. These are designed to interface with your radio by either the serial port or through a sound card. In general those that use the serial port must also include the use of a special

modem (modulator/demodulator) and operate under DOS. The ones that use a sound card are generally compatible with either Microsoft Windows or DOS — but not both.

The reason it is important to understand these differences is because it is central to understanding how demodulation software works.

In order for a digital signal to be accurately demodulated so that the message can be viewed the digital pulses must be accurately timed. If the timing is accurate, then the software can properly "count" the pulses and know exactly what letter or number a group of pulses represents. If it is not accurate, then all you get is garbage on the video screen.

The problem for programmers is that Microsoft Windows — no matter which version you use — does not do a good job of doing such counting if you use a serial port. If you send it through your soundcard though, that device contains enough independent processing power to both demodulate the audio signal into a digital form and keep track of the counting at the same time.

Even then many people have found that while sound cards are fine for simple digital modes such as CW and RTTY, it is still not accurate enough for many of the high-speed error checking modes that you will encounter in ute monitoring. It has been found that using a serial port modem in conjunction with the DOS operating system is the most reliable set-up for serious digital monitoring.

However, for digital signal processing (or DSP) a sound card is mandatory in order to bring an analog audio signal (what you hear at your radio's speaker) into computer in digital form. Here a fast CPU of modern vintage (such as the Intel Pentium III or equivalent) is of great advantage as its processing power is needed to act upon the rapidly changing signals that audio produces.

Computerized DSP allows an almost infinite number of combinations of filtering types that can be programmed. In practice, though, the actual number of practical filters will be smaller in number. However, while you can have multiple filters, the jury is still out as to whether the digital approach is superior to a well-built mechanical filter.

As with anything, DSP has its advantages and downside. The fact of the matter is that when you pass an analog signal through a digital filter you do not get all of the information that you put in back out. What the DSP program does is "sam-

ple" the analog signal and process representative parts of it.

Just like the phenomena of persistence of vision that allows us to watch a motion picture as smooth flowing action, so to does the ear "fill in the blanks" when listening to sampled digital sound. Yes, it is often clear and sharp, but what it is missing is important harmonics and overtones that can only be created with an analog source. These missing components contain important information that helps the listener "decode" the sound that they are listening to. (I will come back to this point in future columns).

## Summing It Up

Hopefully this overview of using computers with modern compatible monitoring radios will help you assess the software and hardware components that I will be introducing in my next column. While there is a lot of detail that must be covered and understood in order to use computers with your radio, once you have the main points down it is a lot simpler than it may first appear.

The key is to first plan out what you want to accomplish, then start building your system up based upon those needs. Next month I will outline some software and hardware configurations that are based upon particular user needs. Ranging from the beginner through to the power user, I will provide you with the details that you need in order to make more efficient use of your monitoring radio through computerized control and processing.

It will be the way in which radio monitoring will be done over the next few years. So now is a good time to begin understanding exactly what it is and how it is done. Hopefully my efforts here will help you take advantage of these developments and expand your enjoyment of the ute monitoring hobby.

## Reader's Letters

I have been continuing to receive letters and E-mails from many of you, and each and every one is welcome. I would just like to remind everyone that you may write to me directly at:

PMB 121  
1623 Military Rd.  
Niagara Falls, NY 14304-1745

Don't forget that I also have a personal Webpage which has a section devoted

to this column located at <http://www.provcomm.net/pages/joe>.

Here are two recent letters that contain some interesting questions and requests for information.

Hello Joe — I am a DX enthusiast and my main interest is in the utility bands. I was particularly interested in your column in the February 2001 issue of *Popular Communications*. I am a subscriber and will seek earlier editions of your wonderful articles as they are most helpful in my search for new frequencies.

Question #1: Can you suggest where I can obtain a copy of Klingenfuss' book, *2000 Guide for Utility Stations*? I cannot find a dealer in the Denver-Boulder area who carries this guidebook. I've tried Barnes & Noble and amazon.com without success as well. Any other related frequency guides also appreciated.

Question #2: I am looking for station location and additional information on the following frequency — 12.3583: (Unknown Station and Location), Weather-related transmissions between weather forecaster "Herb" and sailing ships in the North Atlantic and Caribbean area in USB. Heard daily from 2100–2300 UTC. Reception here in Boulder is excellent on "Herb" and "Good" to "Poor" on those ships and boats contacting his base station.

Thank you very much for your assistance on my request and I will look forward to hearing from you.

Sincerely,  
C. F. Alan Cass  
Boulder, CO

The Klingenfuss book (and CD as well) can be obtained directly from him at: Klingenfuss Publications, Klingenfuss Radio Monitoring, Hagenloher Str. 14, D-72070, Tuebingen, Germany. Phone ++49 7071 62830; Fax ++49 7071 600849 or E-Mail [klingenfuss@compuserve.com](mailto:klingenfuss@compuserve.com). He's also on the Internet at [www.klingenfuss.org](http://www.klingenfuss.org). Locally you can also pick it up through Universal Radio, and they can be contacted at 6380 Americana Pkwy, Reynoldsburg, OH 43068. Phone 614-866-4267 or by E-mail [dx@universal-radio.com](mailto:dx@universal-radio.com).

Check with each for the current prices on the guide.

Alan also raises an excellent point about Herb, the weather forecaster, whose contribution to marine safety in the

Atlantic and Caribbean have been legendary amongst the boating and sailing community. To tell his story properly I would like to devote a proper amount in the column, and I would like to ask the readership for information about Herb at this time. Do you have any recollections of events involving Herb that you heard while monitoring, or have any background information on Herb's work that you can contribute?

Next we have another request that is worthwhile reading.

Dear Mr. Cooper,

I have just about worn out my September 2000 issue of *PopComm*. Your article on Aeronautical Services theme has trapped me in my radio room for more hours than I care to share. I have always been a listener to 11.175 MHz. After going through your article, I have most of my memories in my HF radio programmed to the aeronautical frequencies. As a result of having my magazine open to the page of the radiotelephone networks map, plus eating a number of meals over it, it is practically ruined.

I am interested in obtaining one of these maps, which I would frame and hang over my radio position for the fun reference it would provide. If you can assist with information of where I may obtain a copy, I would very much appreciate it. Keep up the good articles, and thanks in advance for any information you may have for me.

Regards,  
Don Ferguson/N0ZWC

Well Don, I am really happy that my writing is providing you and the other readers with such rewarding monitoring experiences. What I am going to do is make the map available to anyone who sends along his or her address to me. Either use the Niagara Falls mailing address, or E-mail me at [ur-review@provcomm.net](mailto:ur-review@provcomm.net).

By the way, if you want to get complete back issues of *PopComm*, they are available from Hicksville at \$4 each, post-paid. They can be ordered by calling 800-853-9797 during EST business hours.

Speaking of monitoring, there is a good selection of logs this month. One thing that I have been pleased about is the international nature of the contributions. We have people from Japan, France, New Zealand, and other locations all actively contributing on a regular basis. There is still lots of room for more, and as I have

said before — even if it is only one log, I will still publish it! So on to the logs.

## Reader's Logs

Note: All frequencies in kHz.

**0000:** STATION, Anytown, USA, summary of traffic heard in MODE at 0000 UTC, personal comments here (JC)  
**2598:** VCM: CCG St. Anthony 0107 USB w/MIB. (MADX)  
**2598:** VOK: CCG Labrador 0137 USB w/MIB. (MADX)  
**2625:** FTJ: Israeli Mossad, E10, heard in USB at 1900. (TY)  
**2670:** NMF2: USCG Group Woods Hole 1017 USB w/MIB. Weak, but readable. (MADX)  
**2670:** NMN37: USCG Group Ft. Macon, NC 0104 USB w/MIB. (MADX)  
**3195:** SLHFM-R, Izhevsk, Russia, MX, heard in CW at 1115. (TY)  
**3415:** SLHFB-A, somewhere in Russia. MX, heard in CW at 1239. (TY)  
**3417:** ART, Israeli Mossad, E10, heard in USB at 2130. (TY)  
**3658:** SLHFM-V, Khiva, Russia, MX, heard in CW at 1300. (TY)  
**4146:** Taupo Marine R. OM WX (TL)  
**4233:** So-called slot machine heard in AM at 1428 also on 4292, 6419, 6446, 8589, 8705 kHz. Vy noisy but interesting signal (*Readers — any ideas what this is? — Ed*) (TY)  
**4273:** 7MI: 0335 USB wkg GIANTKILLER: FACSFAC Va Capes in the clear + ANDVT. At 0337, R3X wkg GIANTKILLER. (MADX)  
**4280:** UNID RTTY (TL)  
**4292:** So-called slot machine heard in AM at 1023. (TY)  
**4560:** YHF, Israeli Mossad, E10, heard in USB at 1900. (TY)  
**4590:** RTTY Husky oil rig Canada (?) (TL)  
**4718:** RESCUE 51: RAF Nimrod a/c 0740 USB wkg KINLOSS RESCUE. At 0744. KINLOSS RESUCE clg RESCUE 193. (MADX)  
**4724:** ANDREWS broadcasts MKPHJT EAM type msg, 28 characters, simo on 6712, 6739, 8992, 11174, 11244, 13200, and 15016 kHz. Echoed probably by an airborne CP at 2110Z on 8992 and 11244. (JH)  
**4724:** EAM type 28 character message (MKR-VOA) broadcast by ANDREWS, simo on all the GHFS frequencies above. Echoed by MINCEMEAT (probable airborne CP) at 2127Z on 8992 kHz (ends with "THIS COMPLETES MESSAGE OF 28 CHARACTERS.") (JH)  
**4724:** ANDREWS broadcasts another EAM type 28 char (MKO6D3) simo on 6712, 6739, 8992, 11174, 11244, 13200, and 15016 kHz. OFFUTT and HICKAM echoed this msg at 0155Z (on 8992, 11175, and 11244), at 0156Z (on 11175 and 15016 kHz). HICKAM simu 0232Z on 8992 11175 15016 (JH)  
**4724:** LAJES: 0652 USB w/22-character EAM (75WKUG). (MADX)  
**4724:** ANDREWS 0330 USB w/28-character

EAM (75UQL5... ). Heavy echo on all freqs. /6712/ 6739/ 8992/ 9025/ 11175/ 11244/. At 0333, echoed by OFFUTT. (MADX)  
**4880:** ULX. Israeli Mossad, E10, heard in USB at 1900. (TY)  
**4991:** PANTHER: DEA Nassau 0241 USB wkg 03C: USCG HH-60J #6003 on SIERRA BRAVO. After radio check, units switched to "PANTHER ALPHA." (MADX)  
**5120:** OWF: Danish Military 0825 MIL-STD 188-141A clg OWC: Danish Military. (MADX)  
**5154:** SLHFM-K, Peteropavovsk Kamchatsky, Russia, MXC, heard in CW at 0944. (TY)  
**5338:** Korean Fishing Boats Pacific 0832 UTC USB two OMs in KK with a chit-chat. (IJ)  
**5377:** Russian pseudo-time signal station, M21, Russian Air Defence, sending then pause for 50 secs, followed by CW at 2146. This time is UTC+3 hrs but not accurate. (TY)  
**5422:** LP lady, Cyprus, E3, heard in USB at 1900, also on 6485, 8464 kHz. (TY)  
**5435:** ART, Israeli Mossad, E10, heard in USB at 1900. (TY)  
**5450:** MVU: RAF Volmet 0532 USB w/aviation WX. (MADX)  
**5500:** CALDAS3: Colombian Navy Corvette Caldas CM-52 0924 MIL-STD 188-141A clg CESYP: Special Command San Andreas and Providencia Islands. (MADX)  
**5509:** ROCKVILLE: Washington Gas and Light, Rockville, MD (WPPY393) 1642 MIL-STD 188-141A (LSB) w/sounding call. (MADX)  
**5690:** RESCUE 2121, USCG HU-25 USB wkg CAMSLANT for phone patch to District 1 Command Center requesting additional aircraft for SAR Case and passing location of strobes/EPIRB and fuel state. (RRM)  
**5696:** CAMSLANT USB wkg 2131: USCG HU-25C (CGAS Miami) USCG HU-25A (CGAS Miami). (MADX)  
**5696:** RESCUE 2121, USCG HU-25 USB wkg CAMSLANT, USCGC Spencer for a SAR on strobe lights co-located with EPIRB position. (RRM)  
**5696:** BCST, unknown 1050 USB, clg CAMSLANT and answered but no response (IDd phonetically BRAVO CHARLIE SIERRA TANGO). (RRM)  
**5696:** DOLPHIN 81, USCG 6581 0350 USB, clg SHARK 01 with no response. (RRM)  
**5696:** USCG HH-65 USB, clg CAMSLANT with no response. (RRM)  
**5696:** USCG HU-25 USB, wkg CAMSLANT departing Guantanamo Bay en route to CGAS Miami with 6 POB. (RRM)  
**5696:** RESCUE 6544: 0312 USB clg Group Charleston. (MADX)  
**5786:** BATZ: Ile de Batz, France 0040 MIL-STD 188-141A clg HOUAT: Ile de Houat, France. At 1043, MOLENE: Ile de Molene, France clg GROIX: Ile de Groix. At 1052, MOLENE clg BATZ. (MADX)  
**5846:** Many stations Solomon Islands USB with various OMs and YLs passing traffic in Pidgin EE. "Go ahead." (IJ)  
**6224:** Taupo Marine R. OM WX signed off as

Taupo ZLM Marine Radio. (TL)  
**6224:** Taupo Maritime Radio ZLM OM coastal WX reports and danger reports YL survey vessel at Raglan. (TL)  
**6322:** UIW: Kalinigrad Radio 0412 CW w/call tape "DE UIW KLD" plus ARQ free idle. (MADX)  
**6348:** FUE: French Navy Brest 0706 BAUDOT 150/780 w/test tape. (MADX)  
**6370:** VLB2, abnormal Mossad transmission Rptng callup only for over 30 mins in USB at 2150. On another day usual VLB2, Israeli Mossad, E10, heard in USB at 2115. (TY)  
**6378:** 4XZ: Israeli Navy Haifa 0343 CW w/call tape. (MADX)  
**6419:** So-called slot machine heard in AM at 1023. (TY)  
**6446:** So-called slot machine heard in AM at 0835. (TY)  
**6485:** LP lady, Cyprus, E3, heard in USB at 1900. Also on 5422, 8464 kHz. (TY)  
**6491:** The Backward Music Station, XM, heard in USB at 0833 (TY)  
**6498:** PCD2, Israeli Mossad, E10, heard in USB at 1900. (TY)  
**6501:** U.S. Coast Guard (Maryanna or Marinna?) the Town or Port sounded like Qualmouth? (*Note to readers — can you help with this one? Tony cannot find it on any map of the USA and an ident would be appreciated — Ed*) (TL)  
**6532:** San Francisco Aeradio wkg various a/c in USB at 1452. (TY)  
**6575:** HNC8, deep cover and mission specific Israeli Mossad transmission, heard in USB at 1345. On another day HNCM, also vy rare Mossad transmission, heard at 1447. Usually R. Pyongyang beamed Europe is busy on this freq. (TY)  
**6604:** VOLMET New York John F Kennedy Intl. Airport OM position 00072 NY. (TL)  
**6658:** KPA2, Israeli Mossad, E10, heard in USB at 1915. (TY)  
**6673:** UNID Radio WX OM Brisbane Townsville Melbourne etc./tx 0834.  
**6676:** Volmet Brisbane OM 8695 Maritime CW Chile. (TL)  
**6712:** ANDREWS broadcasts FZ5TSY EAM type message, 28 characters. Echoed by RAINFALL (airborne CP) on 8992 and 11244 kHz about 2110Z, 2127Z, and 2156Z; and by SALINAS on 13200 at 2115Z. (JH)  
**6796:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress heard at 1210. (TY)  
**6805:** UNID: Pacific Island Telecom or Inter-Island net 0825 UTC USB with OM and YL in a Pacific Island language. (IJ)  
**6825:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress heard at 1215. (TY)  
**6845:** VLB60: Private Outpost Station Pretty Gully, NSW Australia 0910 UTC USB OM with a chit-chat. Mentioned about the difference in reception on this freq, compared to 4055 the previous evening. (IJ)  
**6854:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress heard at 1207. (TY)



- 6866:** UNID: 0803 CW w/32wpm "345"(x3) then "TTTTT" (cut 0). QRT at 0804 w/no t/c. Ident, anyone? (MADX)
- 6876:** UNID: station Russia 0902 UTC USB with OM in RR. (IJ)
- 6881:** NNN0MUA: 2128 PACTOR-1 100/200 WKG NNN0WPT w/BBS system. (MADX)
- 6900:** L P lady Cyprus. E3, heard in USB at 1900, also noted on 10426. 11545 kHz. LP lady usually appears on this 6900kHz and Saturday at 1900. (TY)
- 6912:** E10: Mossad Numbers Station 2349 AM w/SYN2. (MADX)
- 6912:** MIW2, Israeli Mossad, E10, heard in USB at 2215. (TY)
- 6933:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress heard at 1208. (TY)
- 6960:** TCS. E5, heard in USB at 2200, also on 9090 kHz. Similar but non-parallel TCS transmission heard on 6912. 10352 kHz.
- 6986:** ART. Israeli Mossad, E10, heard in USB at 1500. (TY)
- 7019:** Russian man numbers heard in AM, accurately AM compatible reduced carrier LSB mode. Started w/presumed 3FG's for four mins. Ended w/sounded -like "Noil Noil Noi." Station is heard regularly at 1104 on every Thursday. Always heard w/heavy QRM. Stn is similar to S6, but without ENIGMA code. (TY)
- 7039:** SLHFM-F, Vladivostok, Russia, MXC, in CW at 0847. (TY)
- 7358:** FTJ2, Israeli Mossad, heard in USB at 2100. (TY)
- 7433:** FDG: French Air Force Bordeaux 0423 CW w/call tape. (MADX)
- 7453:** UNID: station China 0920 UTC LSB with YL in CC passing traffic to OM. Ack. with "Roger and OK." (IJ)
- 7535:** RAMMAGE: *USS Ramage* DDG-61 1452 USB w/kg NORFOLK SESEF w/radio systems check. (MADX)
- 7535:** RED THUNDER: aka V3E unid (not Ohio CAP) 1506 USB w/kg NORFOLK SESEF. We're trying to raise station R3X. (R3X was active 12 hours earlier working GIANTKILLER on 4372) (MADX)
- 7628:** ZLCA201: Mainland Communications Christ Church New Zealand 0555 UTC USB relaying NZ Fire service VHF audio for the Canterbury region over their P-T-P link to ZLCA ComCentre Auckland. Often do this to keep the link open, when they're not using the freq. (IJ)
- 7629:** KAT: unid 1031 MIL-STD 188-141A w/sounding call. Again at 1051 and 1111. On 20-minute sound cycle. (MADX)
- 7685.5:** UNID: 2200 PACTOR 100/200 c/g NNN0CSP: Spencer, NNN0CMV: Tampa, NNN0CCK: Bear, NNN0CXS: Dallas, NNN0CCK: Gallatin, NNN0CSA: Seneca, NNN0CYU: Vigilant, NNN0CNY: Campbell. Using typical shortened Pactor call signs: NN0C. vice NNN0C. (MADX)
- 7762:** RGH77(probable): Arkhangelsk Meteo 0737 FAX 60/576 w/weak signal. Chart unreadable. (MADX)
- 7773.4:** UNID: station possibly outbanders Indonesia 0915 UTC USB 2 OMs in Indonesian with CB style chit-chat. (IJ)
- 7781:** RTTY ISB DEN London Eng.04/01
- 7787.8:** UNID: 0020 PICCOLO apparently encrypted. Not MFSK-16. (MADX)
- 7797.5:** Japanese Fishing Boats Pacific 0918 UTC USB three OMs in JJ with a chit-chat. (IJ)
- 7811:** Abnormal VLB2 transmission, Israeli Mossad, Rptng callup only for over 30 mins in USB heard at 1259. On another day usual CIO2, Israeli Mossad, E10, heard in USB at 1445. (TY)
- 7980:** UNID: Russian Military 0813 81-81 81/220. Note: too weak to be Cuban. (MADX)
- 7980:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress heard at 1325. (TY)
- 7992:** CYP: UK FCO Station Cyprus 0320 MIL-STD 188-141A/USB w/sounding call. (MADX)
- 8040:** GFA: Bracknell Meteo 0940 FAX 120/576 w/surface analysis chart. (MADX)
- 8076:** Summer Institute of Linguistics stations Papua New Guinea 0926 UTC USB two YLs with a chit-chat. (IJ)
- 8094.5:** FDC: French Air Force Metz 0443 CW w/call tape. (MADX)
- 8127:** VLB2, Israeli Mossad, E10, heard in USB at 2245. (TY)
- 8136:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, heard at 1115. (TY)
- 8167:** TWA-891 2340 USB w/kg STOCK-HOLM w/pp to MCI-Maintenance. 891 has hydraulic failure on the right side, with right side thrust reversers and right-side autopilot unusable. (MADX)
- 8308:** Unid stn 4XML Rptng "VVV BFR7 DE 4XML" over and over in CW. At 1010. Also on 10822 kHz. (TY)
- 8375:** CC/YL nbrs heard in AM at 1300. YL opr Rptng "All center stations, this is Beijing speaking" in Mandarin Chinese for app. five min. (TY)
- 8400:** PADILLA3: Colombian Navy prob Almirante Padilla CM-51Type FS1500 Corvette 0329 MIL-STD 188-141A/USB w/sounding call. (MADX)
- 8464:** LP lady Cyprus, E3, heard in USB at 1900, also on 5422. 6485kHz. (TY)
- 8465:** UNID: 0840 BAUDOT 100/810 encrypted. (MADX)
- 8484:** HLF: Globe Wireless Seoul 0852 CW w/call tape. (MADX)
- 8495:** SLHFM-F and K, Vladivostok and Peteropavovsk Kamchatsky, Russia, MXC, heard in CW at 0955. K station with a dirty distinctive hum. (TY)
- 8508:** UNID: Russian Navy 0854 36-50 50/250 in t/c. QRT at 0855. (MADX)
- 8514:** WLO, Mobile Radio 0857 SITOR-B w/t/c list. (MADX)
- 8549:** UCE: Arkhangelsk Radio 0902 SITOR-B w/t/c list. QRT at 0903. (MADX)
- 8551.5:** CTP: Portuguese Navy Oeiras 0906 BAUDOT 75/810 w/call tape. (MADX)
- 8557:** SPB: Szczecin Radio 0911 CW w/call tape and ARQ idle. (MADX)
- 8589:** So-called slot machine heard in powerful AM at 0649. (TY)
- 8617:** XSV, Tianjin R., sending Sitor and CW ID at 1045. On another day XSW, Kao-hsiung R., Taiwan, w/CQ mkr in CW at 1050. (TY)
- 8638:** VNG time station Llandilo 0916 AM w/time pips. (MADX)
- 8638:** VNG Llandilo Penrith NSW Aust S333 03/01 (TL)
- 8641:** SYN2, Israeli Mossad, E10, heard in USB at 1345. (TY)
- 8646:** FUJ: French Navy Noumea New Caledonia 0920 BAUDOT 75/800 w/test tape. "DE FUJ TESTING RYRYRYRYRY 6492". The number increments by one as the tape runs. (MADX)
- 8650:** SPE42: Szczecin Radio 0926 CW w/call tape. (MADX)
- 8705:** So-called slot machine heard in powerful AM at 0649. (TY)
- 8758:** VOICE: ship to shore OM/YL cc (TL)
- 8764:** NMN: USCG CAMSLANT Chesapeake 0931 USB w/MIB. /4426/6501/. (MADX)
- 8864:** TWA 721 with Gander ATC, CAN Dec 17 1800z position 58N 50W 01888.0 IPD Civitavecchia Radio ITA Dec. 17 1910z WX in Italian. (PP)
- 8867:** Brisbane chk 143 maintain height Ak R 0458 climbing 88 to Bris. (TL)
- 8867:** NZ1448 643 Freedom Air 18 314 NZ 184(TL)
- 8965:** E30138: E-3C AWACS #80-0138 2009 MIL-STD 188-141A c/g OFF: Offutt AFB. Attempting a ALE-originated pp to DSN 884-xxxx (Tinker AFB). (MADX)
- 8965:** PLA: Lajes Airfield 2011 MIL-STD 188-141A+USB w/kg JNR: Scope Command Salinas w/ALE and voice radio check. (MADX)
- 8971:** LIMA CHARLIE 089 with DOOR-KNOCK, operational traffic. (JH)
- 8971:** FIGHTING TIGER-742 working with GOLDENHAWK. FT-742 passed that "GADGET SEVERELY DAMAGED, WEATHER ON STATION VERY POOR." GOLDENHAWK said he'd pass the info to WHISKEY OSCAR. (JH)
- 8971:** TRIDENT 725: USN P-3C VP-26 1527 USB w/kg GOLDENHAWK: TSCC NAS Brunswick. At 1530. GOLDENHAWK w/kg JOSHUA 56: 24th MEU-related a/c. At 1604: FIGHTING TIGER 725 w/kg GOLDENHAWK. (MADX)
- 8971:** JOSHUA 56, USN P-3C USB w/kg GOLDENHAWK advising they were given an erroneous lat/long for target and requesting that HIGH VOLTAGE be advised they were en route to the correct lat/long (RRM)
- 8974:** VOICE: OM "change over recommend you change over" . . . syd Af airport qsl over Syd airdrome . . . eagle 514 right o this s eagle out. (TL)
- 8983:** HC-130: USCG USB, w/kg CAMSLANT, CAMSLANT passing that AirSta Clearwater requests ETA to Great Inagua. (RRM)
- 8983:** CAMSLANT: 1930 USB w/kg 2112: HU-25C (CGAS Miami) and 2131: HU-25C (CGAS Miami). (MADX)
- 8992:** MUGBEER communications test count

1-5-1 simo on 11175, 11244, and 15016 kHz. (JH)

**8992:** FOXBREATH (or FOXLESS) broadcasts FZHA4E 28 character EAM type message. Ends with "THIS COMPLETES MESSAGE," which seems to be typical procedure for an airborne CP. (JH)

**8992:** LIGHTENING-32 with ANDREWS, radio check. L/C by Andrews. (JH)

**8992:** ANDREWS and SPAR-56. Callup was "THIS IS PACOM. CORRECTION SPAR-56 ON 8992 RADIO CHECK." This was the same female voice using callsign PACOM-01 at 1746Z on 11175 kHz. (JH)

**9025:** 240070: C-17. REACH 262 0645 MIL-STD 188-141A, ALE contact with JNR (GHFS Salinas) then USB phone patch to CORNSTONE (?) (RRM)

**9025:** RSC: Rockwell Scope Command Facility 0427 MIL-STD 188-141A sounding (RRM)

**9032:** Ak to Memurdo cntl CW(TL)

**9057:** AMC134(ale id:360134): C-141C #66-0134 1958 USB+MIL-STD 188-141A wkg ANDREWS (ale id: ADW) w/"ACS check." (MADX)

**9090:** TCS, E5, heard in USB at 2200, also on 6960 kHz. Similar but non-parallel trans. heard on **6912, 10352 kHz.** (TY)

**9153:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress at 1005. (TY)

**9238:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress at 0918. (TY)

**9257:** CW unid (TL)

**9270:** VLB2: MOSSAD No Station 0550 UTC USB with YL repeating VLB2. (24/DEC/00) (IJ)

**9270:** Abnormal VLB2. Israeli Mossad, Rptng callup only for over 30 mins in USB at 1259. (TY)

**9446:** Rptng "V CP17 DE L9CC" over and over in CW at 0955. First time I've ever heard L9CC on this freq. (TY)

**10125:** Abnormal MIW2 marathon, Israeli Mossad, E10, w/callup only for over 60 mins in USB at 1425. (TY)

**10126:** The Cuban Cut CW numbers, DGI, Cuban Intelligence, M8a, in progress at 0912. (TY)

**10132:** Unid station repeating only "4" over and over in CW at 1115. (TY)

**10160:** RTTY SSB Cairo Egypt-Mena nx break tx 0921(TL)

**10204:** AXEMILL radio checks with POLLYWOG and BEACHBONE on 290. (JH)

**10236:** The Cuban Cut CW numbers, DGI, Cuban Intelligence. M8a, in progress at 0830. (TY)

**10352:** TCS, E5, heard in USB at 2200, also on **6912 kHz.** Similar but non-parallel trans heard on **6960 and 9090 kHz.** (TY)

**10423:** TCS, E5, heard in USB at 2200, also on 12197 kHz. (TY)

**10426:** LP lady. Cyprus. E3, heard in USB at 2000, also on 6900, 11545 kHz. (TY)

**10581:** S84: Swedish Embassy Washington DC 1018 MIL-STD 188-141A/Swedish MIL-STD 188-110A 2400bd wkg S93: Swedish Embassy Havana. (MADX)

**10608:** ANTIQUA3: Colombian Navy Corvette Antioquia (CM53) 2034 MIL-STD 188-141A w/sounding call. (MADX)

**10610.9:** Moscow Meteo 0824 FAX 120/576 w/beginning of chart. Weak signal, chart unreadable. (MADX)

**10924.5:** UNID: Station presumed from the Philippines 0820 UTC USB with YL reading back numbers.(IJ)

**11175:** RIP-31 working with SALINAS, requesting message traffic. (JH)

**11175:** MALEPLUG with ANDREWS, requested working freqs for station AXEMILL (phonetically spelled). Primary freq 190, secondary 175. (The typical "Z" was omitted in the freq refs.) (JH)

**11175:** SHUCK-76 with ANDREWS for radio check and personal phone patch. (JH)

**11175:** REACH-6016 working with EGLIN COMMAND POST (CP used callsign RAYMOND-11). Ident himself as a C-5 inbound to Eglin, gave offload data and requested billeting for 10 aircrew. (JH)

**11175:** NAVY-227 with ASCENSION, p/p to Tactical Support Center Rosy Roads, Puerto Rico, DSN 831-3580 or 831-8344. Phone-patch quality was too poor to establish so Ascension relayed aircraft landing time of 2130Z to Rosy Roads (Roosevelt Roads NAS). (JH)

**11175:** FIGHTING TIGER-576 working ANDREWS, p/p to GOLDENHAWK. Passed "Spare group 151700." GOLDENHAWK QSL'd 1730Z. (JH)

**11175:** PACOM-01 calling MAINSAIL for R/C on 11175 (female voice). ANDREWS replied with GO AHEAD, but no more calls from PACOM-01 on this freq. Instead, the same female voice was heard at 1748Z on 8992 kHz calling ANDREWS as PACOM, then correcting her callsign to SPAR-56. (JH)

**11175:** TOPSPOT to MAINSALE with comm. test 1 - 5 - 1, "TOPSPOT OUT." Signal was 5X5.(JH)

**11175:** SKYKING message broadcast by ELMENDORF: echoed by HICKAM and THULE at 0243Z on 11175. (JH)

**11175:** HICKAM broadcast another SKYKING message; a third SKYKING message broadcast by ELMENDORF at 0255Z, and echoed by THULE at 0256Z. (JH)

**11175:** HUG-31 working with MCCLELLAN, p/p to DSN 728-1288. Was told that the weather was bad at Mountain Home [AFB] "AT TIME OF SCHEDULED APPROACH, DIVERT TO ELLSWORTH. WEATHER GOOD TOMORROW." (JH)

**11175:** HICKAM broadcasts two SKYKING messages, separates the two with "MORE TO FOLLOW" after the first message. (JH)

**11217:** AAT3BFMARS: U.S. Army MARS Delaware 1653 MIL-STD 188-141A w/sounding call. (MADX)

**11226:** OFF: Offutt AFB 1906 MIL-STD 188-141A + USB wkg ADW: Andrews AFB troubleshooting unid data circuit w/voice and ALE. AMD msgs include: ADW DE OFF

HOW COPY DATA; OFF DE AND RGR. (MADX)

**11232:** TRENTON MILITARY 1718 USB wkg DeHavilland 16 w/sc check (MS-HJ) on HF1 and HF2. (MADX)

**11232:** ALEC-56 in phone patch with EGLIN Metro, requesting weather for Eglin AFB for ETA 0330Z. (JH)

**11233:** UNID: 1313 USB w/NATO scrambled speech system. (MADX)

**11244:** DATENUT with RICOCHET, req freqs for the day. RICOCHET replied Z250 is primary, Z175 secondary. (JH)

**11244:** METRO (or PETRO) broadcasts MKFTOI 28 character EAM type message; ends with "MORE TO FOLLOW," then sends just three more letters to end the message. (JH)

**11244:** ANDREWS 1931 USB w/29-character EAM (75LOCB...) (MADX)

**11325:** FMFPED001: unid S/Central American 0047 MIL-STD 188-141A clg NAVPED000: unid S/Central American. Operators up in SS USB comms following ALE w/mix of SS numbers and NATO phonetics. (MADX)

**11455:** ANTIQUA3: Colombian Navy Corvette Antioquia (CM53) 2051 MIL-STD 188-141A clg RADGENA: unid. (MADX)

**11468:** UNID: Russian Navy 0749 36-50 36/250, into t/c 50bd at 0752, QRT at 0755. (MADX)

**11489:** DEPT: Moroccan MOI 1939 MIL-STD 188-141A (LSB) w/sounding call. (MADX)

**12216:** FM4FEM: FEMA Region Four 1722 MIL-STD 188-141A wkg FM1FEM: FEMA Region One. (MADX)

**12376:** VLB2, Israeli Mossad. E10, heard in USB at 1245. (TY)

**12790:** NMG: USCG COMSTA New Orleans 1810 FAX 120/576 w/tropical surface analysis chart. (MADX)

**12856:** RFTJE: French Navy Dakar 2035 BAUDOT 75/810 w/call tape. (MADX)

**12857:** RFTJE: French Navy 2030 BAUDOT 75/850 w/test tape. (MADX)

**12955:** CW UFL Vladivostok R.Russia. (TL)

**13062:** CLA: Havana Radio 1656 CW w/call-tape. "CQ de CLA QSW RX 8368/12552 TX 8573/12673.5 QSW CLA20/32 QRJ C/809 K." (MADX)

**13089:** NRV, Apra Harbor R., USCG. Guam, sending navigational warnings in USB with heavy QRM from unid stations on the same freq at 0345. (TY)

**13432.6:** BISCAYNE: USCGC Biscayne Bay WTGB-104 2124 MIL-STD 188-141A w/sounding call. At 2138, RED: unid USCG District 9 unit/station w/sounding call. (MADX)

**13444:** The Counting Station 1424 AM w/5FGs (3/2) already in progress. (MADX)

**13470:** FAPSI: Link 80061 1427 BAUDOT 75/500 w/5LGs. Msg end at 1427. Into second message (5LGs) at 1438. QRT at 1447. (MADX)

**13485:** CGE. CANFORCE 1400 MIL-STD 188-110A/MIL-STD 188-141A wkg CRC2: CANFORCE. Active in PSK and ALE. (MADX)

**13528:** SLHFM-F and S. Vladivostok and Arkhangelsk, Russia, MXC, in CW heard at 0840. (TY)  
**13530:** COVENAS: poss Covenas Air Field Colombia 0209 MIL-STD 188-141A clg RADGENA: unid Colombian Navy. At 0218, TUMACO: Colombian Coast Guard Base Tumaco w/sounding call. (MADX)  
**13530:** CESYP: Colombian Navy Special Command San Andres and Providencia 1742 MIL-STD 188-141A/CLOVER 2000 wkg CALDAS3: prob Colombian Navy Frigate Caldas CM-52. (MADX)  
**13533:** EZI, Israeli Mossad, E10, heard in USB at 1430. (TY)  
**13555:** TCS, E5, heard in powerful AM at 1400, also on 15732 kHz. (TY)  
**13827.5:** UNID: poss USCG CAMSLANT 2037 PACTOR II. This is the Atlantic daytime frequency for the USCG Pactor II net. The Atlantic nighttime frequency is 7685.5. Al Dudley found both freqs. (MADX)  
**13958.5:** HBD20: MFA Berne 1341 SITOR-A w/5LGs. QRT at 1349. (MADX)  
**13980.3:** RFFA: MOD Paris 1801 ARQ-E3 100/383 w/plaintext metoc data, already in progress. At 1817, several CdV messages w/ckt id IRE (Paris-Reunion). (MADX)  
**14340:** BAF47: Beijing Meteo China 0935 UTC RTTY 850/50 Bd with WX synopsis. (J)  
**14396.5:** AFA3HY: SHARES Coordination Station Shawnee KS 1700 USB w/SHARES weekly net already in progress. At 1709, switching to ALE portion of check-in. (MADX)  
**14436:** GFE23: Bracknell Meteo 1333 FAX 120/576 w/end of chart. New chart at 1336. (MADX)

**14441.7:** UNID: Egyptian MFA/Embassy 1940 SITOR-A w/telegram from KDFYKC: Egyptian Embassy Rabat to large audience. (MADX)  
**14487:** LP lady, Cyprus, E3, heard in USB at 1300, also on 15682, 16084 kHz. (TY)  
**14558:** CW USB AFE Cape Canaveral Afs fl fa USAF/NASA "Cape R." (TL)  
**14577:** TCS, E5, heard in AM at 1400, also on 16198kHz. (TY)  
**14582:** RJ1: unid Brazilian mil 2140 MIL-STD 188-141A clg BR1: unid Brazilian Mil. At 2202, RS1: unid Brazilian Mil clg BR1. (MADX)  
**14636.7:** RFLI: French Forces Fort de France 2019 ARQ-E3 192/381 CdV on ckt IRT [Fort de France — Cayenne]. Paired with 14876.7 kHz. (MADX)  
**14639:** XWK0A: KPL Vientiane Laos 0855 UTC RTTY 425/50 Bd with RYRY, followed by De XWK0A 14640 KHZ HOASANEPAT HETLAO 08 -: 1 EE M DAILY TRANSMISSION ED LAG HR T LAO. (J)  
**14689:** ZOW: unid Romanian Embassy 2030 MIL-STD 188-141A clg CENTR5: Romanian MFA. (MADX)  
**14780:** UNID: poss British mil Cyprus 1857 F7B 4-tone 195.3/600. (MADX)  
**14782:** UNID: stations the Philippines 0848 UTC USB with OM and YL in Tagalog and some EE. "That's right over." (J)  
**14790:** UNID: Ferry boat net the Philippines 0845 UTC USB with 2 OMs in Tagalog. Mentioned Captain. (J)  
**14824.8:** UNID: stations China 0932 UTC USB with OM and YL in CC. (J)  
**14866:** Abnormal MIW2 marathon, Israeli Mossad, E10, w/callup only for over 120 mins in USB at 1020. (TY)

**14876.7:** RFLIG: French Forces Cayenne 2049 ARQ-E3 192/390 w/CdV on ckt RTI [Cayenne — Fort de France]. Paired with 14636.7 kHz. (MADX)  
**14931:** 8BY, French Intelligence, Saint Assise near Paris, France, sending "VVV 8BY followed by 3FGs separated by a slant bar" in faint CW at 0540. (TY)  
**15016:** LC-089 with OFFUTT, p/p autovon 476-2108, duty office. Received weather for homeplate, indicating the storm has not yet hit. LC-089 requested customs and driver. (JH)  
**15016:** HICKAM with SWORD-11, comm. check ("HOW COPY"). (JH)  
**15034:** CHR: CANFORCE VOLMET Trenton 2125 USB w/aviation wx. (MADX)  
**15094:** AAR7ALMARS: U.S. Army MARS Overton NE 1709 MIL-STD 188-141A + USB wkg AAR1DDMARS: U.S. Army MARS West Hartland CT w/ALE calls and voice troubleshooting. (MADX)  
**15682:** LP lady, Cyprus, E3, heard in USB at 1300, also on 14487, 16084 kHz. (TY)  
**15732:** TCS, E5, heard in AM at 1400, also on 13555 kHz. (TY)  
**15820:** S82: Swedish Em Maputo Mozambique 1748 MIL-STD 188-141A clg S53: Swedish Em Amman. (MADX)  
**15962:** DATENUT radio check with BAG-MONEY "on 250." (JH)  
**15980:** EZI, Israeli Mossad, E10, heard in USB at 1330. (TY)  
**16084:** LP lady, Cyprus, E3, heard in USB at 1300, also on 14487, 15682 kHz. (TY)  
**16198:** TCS, E5, heard in AM at 1400, also on 14577 kHz. (TY)  
**16215:** UNID: Stations the Philippines 0902 UTC USB OM and YL in Tagalog with a chit-chat. (J)  
**16228:** UNID: stations the Philippines 0905 UTC USB OM and YL in Tagalog with a chit-chat. (J)  
**16332:** SLHFM-S, Arkhangelsk, Russia, MXC, in CW at 0837. (TY)  
**16544:** MARQUEZ: Colombian Coast Guard Vessel Jorge Marquez (PM117) 2047 MIL-STD 188-141A clg RADGENA: unid. This is a new frequency for the Colombian Navy ALE net. (MADX)  
**16789:** UNID: relay of PNA News 1904 SITOR-B in EE. QRT at 1906. (MADX)  
**17050.5:** ASK, Karachi R., Pakistan, rptng "DE ASK ASK QSX 12/16MHz CH 3/4 K" faint CW at 0747. (TY)  
**17165.5:** CLA: Havana Radio 1806 CW w/call tape. (MADX)  
**17170:** Abnormal MIW2 marathon, Israeli Mossad, E10, w/callup only for more than 60 mins in USB at 0940. (TY)  
**17341:** HLS, Seoul R., South Korea, rptng Beethoven's 9th Symphony "Ode to Joy" bwn ppatches in USB at 1110. (TY)  
**17490:** LUA: British Embassy Luanda 1927 MIL-STD 188-141A w/sounding call. (MADX)  
**18003:** 240065: USAFC-17A #94-0065 1816 MIL-STD 188-141A clg OFF: Offutt AFB. At 1818, E30138: E-3C AWACW #80-0138 wkg ADW: Andrews AFB w/attempted ALE-initi-

**CQ**

## 33 Simple Weekend Projects

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ated DSN pp: 884-3918, Tinker AFB. No comms noted. (MADX)

**18036:** TCS, E5, heard in AM at 1000, also on 16198 kHz. (TY)

**18178:** VLB2, Israeli Mossad, E10, heard in USB at 1045. (TY)

**18757:** P6Z: MFA Paris 1846 FEC-A 192/291 with 5FGs for 3GF: French Em Santiago Chile on ckt ID SGO. (MADX)

**18757:** RFGW: French MFA 1903 FEC-A 192/380 w/5LGs. (MADX)

**18864:** CR lady, E3a, heard in USB at 1100, also on 23461 kHz. (TY)

**19131:** ATLAS: DEA-contract Comms Center Cedar Rapids 1930 USB wkg 411: DEA a/c. (MADX)

**20048:** SLHFM-S, Arkhangelsk, Russia, MXC, in CW at 1120. (TY)

**20474:** CR lady, E3a, Guam, heard in USB at 1000. (TY)

**20631:** E30138/CHALICE BRAVO: E-3 AWACS #80-0138 1912 MIL-STD 188-141A wkg ELMENDORF then calling in voice. (MADX)

**20946:** 8BY: French Intelligence (Enigma Designator M16) 1750 CW w/call tape. (MADX)

**20946:** 8BY. French Intelligence, Saint Assise near Paris, France, sending "VVV 8BY followed by 3FGs separated by a slant bar" in faint CW at 1055. (TY)

**20958:** S84: Swedish Embassy Washington DC 1929 MIL-STD 188-141A wkg S94: Swedish Embassy Guatemala City then into Swedish Diplo 2400bd serial modem. (MADX)

**21866:** WGY910: FEMA District 10 1841 USB + MIL-STD 188-141A wkg WGY918:

FEMA MERS Denver w/quick msg t/c. ALE IDs: FM0 (WGY910) and FM8FEM (WGY918). (MADX)

**21866:** CR lady, E3a, Guam, heard in USB at 2300. (TY)

#### Log Contributors

IJ — Ian Julian, New Zealand

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Thanks again to everyone for their contributions. Each and every one is appreciated. Be sure to start sending in yours soon.

And don't forget — a suitable for framing certificate of appreciation is available to anyone who submits a log to this column. Just provide me with your mailing address and I will send it along to you at no cost.

Once we get things rolling with that I will start to keep track of the number of logs that are being sent in by individuals, and will begin to send out other rewards — generally in the form of books on radio monitoring. Watch this column for more details in coming months.

Next month I will continue my overview

of the computer hardware and software and how it is used to control your modern radio and process its signals. What will be presented are specific software packages and hardware components, such as serial port modems and sound cards — along with how they are used.

The way that I will be presenting the information will show how you can build a computer component into your radio monitoring depending upon the type of radio set you are using, and how you need to apply the computer technology to your monitoring needs. You may be surprised how inexpensive and easy to do it will be.

I also ask again for your input regarding future topics for the column. There are many of you out there who have a great deal of skill and knowledge, and I would like to see you share it with the readers here. As I said before, even if you are not all that good at writing, get your ideas down and let me polish them up for you.

Likewise if you have a suggestion for a future theme, please pass that on to me. There may be something out there that needs to be covered that I may have overlooked. My passion is research, so please put me on the trail of something interesting that I can explore and share with the readers — *of your column*.

Until next month, may all of your radio motoring sessions be fun, productive and enjoyable! ■

## Tuning In (from page 4)

order to protect the valuable QVC trademark and its customers, we must take every precaution and be extremely vigilant of others' use of the mark, innocent or not.

While we find nothing objectionable about the manner of use of the QVC mark in your domain name, nevertheless, as the owner of a highly distinctive radio callsign and domain name yourself, I am sure you can understand the care with which we monitor QVC's brand identity. As you indicated on your home page 'ham calls are unique, no one in the world has this symbol.'

QVC is the way in which QVC, Inc. establishes its brand identity. Just as you would find troubling the use by another of your callsign or your Social Security Number, so does my client find it troubling when others use its valuable trademark without its permission.

In order to resolve this matter, relying upon your representation that your use of the letters QVC in your domain name are used only for your personal use, and not for commercial activities that would create the impression that you are affiliated or con-

nected with QVC, Inc. in any way, we will take no further action.

Thank you for your cooperation in this matter."

Obviously the bigs at Mr. Doug Briggs' QVC suffered a major league lapse in judgement and certainly regret their error. Nevertheless, I'm still amazed. Here's QVC, this multi-bazillion dollar enterprise selling everything from dolls to jewelry, apparently doesn't have any hams in their company — at least on their legal team. Frankly, I wonder about these lawyers on their team — after all, any grade-school student would have first checked Tony's Website and made an immediate determination not to pursue the matter in the first place.

I've checked his Website and talked with Tony. He seems like a pretty average guy to me. He was married last year, they've got some dogs and cats (Moxie, Smokie, Popcorn, Toby, Mammakey,

Jenny, and Nuts), a good-sized backyard, some homebrew projects and family photos and a whole lot more on the Website — nothing indicating any copyright infringement.

All of this makes me wonder how many other callsigns there are out there in ham radioland that will either offend someone or corporately crank off some nerdy lawyer. I'm thinking about calls with FAT, BIG, KFC, AOL, CBS, ABC, NBC, OLD, HOT, BAD, NUT, DIM, DOG, FEM, BUM, TUB, WAD, and the list goes on.

Please, Mr. Briggs, give your legal whiz kids at QVC a much-needed vacation far away from the books, computers, and cell phones. We're not laughing now. It's time to hire some PR pros. Please also give Mr. Macel a jar of Quigley's Vanishing Cream with our compliments.

Now that I think about it, Bill Prices' "Loose Connection" column didn't make it to me this month. Could it be that William Shatner and the Priceline folks — no, not a chance! ■

# CLANDESTINE COMMUNIQUÉ

Tuning In To Anti-Government Radio

## Targeting Iraq, North Korea And Cuba With Radio!

If you've been trying to log the **Voice of Sudan** you can forget it. The station, which was operated by the National Democratic Alliance, one of several groups opposed to the current Khartoum government, has been closed down. Apparently some sort of an agreement was reached between the government's of Sudan and Eritrea, where the station was based. The Voice of Sudan was well heard on **8000** and **9000** MHz, where it jockeyed around with official Sudanese radio.

Another anti-Sudan station, the **Voice of Freedom and Renewal**, announced its "current" schedule as daily (except Fridays when it's 0600-0800) from 0330 to 0430 and 1300-1400. The frequency wasn't given, but it has most recently used variable **7000**.

The **Voice of the Democratic Path of Ethiopian Unity** continues to broadcast via DTK transmitters at Jutlich, Germany. Try for it from 1830 sign-on, on **15715**.

**Falun Dafa Radio**, whose broadcasts make the Beijing biggies unhappy, is being noted around 2200 sign-on (sometimes a few minutes earlier.) As to the frequency, that can change from day to day, even during a particular broadcast. Normally they hang out around the 9300 area so try such spots as **9305, 9310, 9315, 9320, 9324, 9340 and 9350**. The same kinds of games take place up above 12 MHz during the same period — **12130, 12135 and 12140** (maybe others as well) are used at various times between 2200 and 2300. These are believed to be from a site in Bulgaria. Falun Dafa programming is in Mandarin Chinese. All the jumping around is to try to escape Chinese jamming.

**Radio Voice of Hope**, aired via the Radio Netherlands relay in Madagascar, uses **12060 and 15320** from sign-on at about 0425 to closing at 0525. Richard D'Angelo in Pennsylvania heard it on **12060** at 0425 sign-on with an EE ID as "Good morning and welcome to another program from Radio Voice of Hope." Then into musical segments, EE and AA talks, and brief interviews with Sudanese living in Kampala (Uganda). **15320** not as good.

The **Voice of Palestine** is on the air daily from 0330 to 0430 on **7250, parallel 9610**, both of which have been fairly well heard recently. These transmissions are aired over the facilities of the Voice of the Islamic Republic of Iran.

The **Voice of the Kurdistan People/Voice of the People of Kurdistan** (the names seem to be interchangeable) is one of the more likely to be heard of this species. And **6995** is the best spot on which to park. Robert Montgomery in Pennsylvania has taken several logs on this one; at 0310 in AA, strong enough to even allow copy of their Website address (<http://www//aha.ru/~said/dang.htm>). Bob notes, "the Website is a good one." He also heard the station at 0422 in AA with music and talk interludes. And, at 0329 with an ID and news in Arabic. Brian Alexander, also in Pennsylvania, got them at 0405 on **4062.35**, as well as **6995**. The latter frequency, he notes, was the better of the two.

**7357** is the new frequency for the **National Radio of the Saharan Arab Democratic Republic**, which formerly used **7450**. It's heard with Arabic programming up to sign-off just past 2300, and has been heard by both Alexander and D'Angelo, both in Pennsylvania.

Tricia Ziegner in Massachusetts has heard "**Radio Oromo**" (more commonly called the Voice of Oromo Liberation), aired via Germany on **17713** (nominal **15715**) at 1700, with programming in Oromo and Amharic. Lost to WYFR sign-on at 1755.

D'Angelo noted **Radio Iran of Tomorrow**, airing via **Moldova on 12055**, from 1825 sign-on with open carrier and tones until a female vocal began at 1829. Then an instrumental music bridge at 1830, man with ID and sign-on announcement. Then news with frequent mentions of Iran and another ID at 1832. Later, a studio announcer began talking via telephone to other men "in the field." Audio cut at 1859:45 and carrier cut at 1900 sharp.

Alexander picked up the **Voice of the**



*Radio Voice of Hope announcer presenting news items in studio Radio Netherlands, Hilversum*

**Iraqi People on 9563** at 0230 to 0316 sign-off. All Arabic with man talking. Koran at 0308. Closed with the Iraqi national anthem. Parallel **9568.5** was also heard but both signals were just fair. Parallel **11710** was very weak (Argentina was not on since this was UTC-Sunday.)

For a number of years now, clandestine authority Mathias Kropf of Germany, has issued an annual survey of clandestine radio activity. For the year 2000, Kropf reports that activity in Asia increased by 17 percent, to 958 weekly broadcast hours (WBH). African activity has nearly doubled — to 227 WBH. The number of target areas has risen from 18 to 20. Morocco, Zimbabwe, and the Democratic Republic of the Congo were new targets during 2000, while Turkey no longer has clandestine broadcasts aimed at it.

Kropf further notes that the most active targets are **Iraq** (359 WBH — an increase of 29), **North Korea** (217 WBH, up 77), and **Cuba** unchanged at 162.

That does it for this time. When you log or confirm clandestine broadcasts please let us have the details. If you run across other information — on locations, contact info, background material about sponsoring organizations and the like, please share it with us. We're also in need of copies of any QSLs you may receive from clandestine broadcasters. As always, thanks for your continued interest. Until next month, good hunting! ■

BY GERRY L. DEXTER

# THE LISTENING POST

What's Happening: International Shortwave Broadcasting Bands

## United Methodist Church Calling Africa

Last month we mentioned the shortwave test broadcasts by the United Methodist Church and presumed to guess that these might lead to permanent regular broadcasts by the UMC. And so it is. UMC has begun regular transmissions to various parts of Africa on a regular basis. Broadcasts in French occur daily at 0400–0600 on **11775** and 1700–1900 on **13810**. English is aired from 0400–0600 on **13685** and 1700–1900 on **15485**. All transmissions are via Deutsche Telekom's transmitters at Julich, Germany. Officially, the broadcasts are part of the Africa Radio Project of the General Board of Global Ministries of the United Methodist Church. Reception reports can be sent to the above department at 475 Riverside Drive, NY, NY 10115.

WRNO in New Orleans, the broadcaster that broke through the FCC's resistance to granting further shortwave licenses some two decades ago, has now become a DX target within its own country. The station's power is down to something like a mere 100 watts (probably less than that), rather than the 100 kW they're listed for. Look for 'em on **7355** during our evening period, from 2300 to 0400. Most of WRNO's shortwave schedule carries the Overcomer Ministry (Brother Stair). All this is a far cry from the station's original plan!

Robert Montgomery in Pennsylvania alerts us to the fact that **Radio Cristal International** in the Dominican Republic has been reactivated. He found it around **2330**, midst two other stations on or near Cristal's **5010** spot, but it took a lot of digging over several days to pull out a clear ID. If you can pick them out and want to send a report it should go to Apartado Postal 894, Santo Domingo.

There may be a new Venezuelan station in our future, though it is likely to be a good ways off, if it happens at all. Jeff White, the head guy at Radio Miami International/WRMI, says he has been told he can use **4730 kHz** for a station in the town of San Juan de los Cayos, on the Caribbean coast. That, it seems, was the



KSDA's transmitter building on Guam.

easy part, for White and company have been filing forms, more forms, and then more forms in an attempt to move to the next level — the securing of a construction permit. All this has been going on for a couple of years so no one is doing any celebrating. We'll try to keep you advised of the progress, if any.

Somewhere along the way the Voice of Greece seems to have changed the times for their brief English segments within their mostly Greek broadcasts. They're now airing English Monday to Friday from 0300–0306 (just a newscast) on **5890, 7455, 9375 and 9420**. And from 0610–0617 on **7475, 9420, 15630 and 17520**. Also 0750–0800 on **9420, 15170, 15630 and 17520**. And, on a daily basis, from 1110–1120 on **9420 and 15630**, as well as 1945–1955 on **7475 and 9375**. Special feature "Hellenes Around the World" is heard on Saturdays from 1700–1800 on **9420 and 15630**. "It's All Greek to Me" is aired Sundays from 1900–2000 on **7450, 9420, 17565 and 17705**.

Even though it's been nearly ten years since the Gulf war, Iraq's foreign service still seems in a world of hurt. What was once an easy catch here continues to be difficult to hear, much less hear well. **Radio Iraq International** uses variable

**11785** (there's often a het in the area) and has English from 2000–2045 and again from 0200–0245. German, French, and Turkish follow in one hour, half-hour and 45-minute segments respectively. But the station isn't on the air daily, nor can you depend on its carrying the complete schedule. Start times also vary.

The North American broadcasts of **Radio Vilnius** at 0030 on **6120** should, by now, be coming from a transmitter at Sitkunai, Lithuania, and not a relay via Julich, Germany.

We've selected **Bruce R. Burrow** of Snoqualmie, Washington as our book winner for this month. Bruce has received a copy of the 2001 edition of *Passport to World Band Radio*. Our thanks go to Universal Radio for providing this month's prize. If you don't have Universal's mammoth radio catalog you should get a copy. It has over 100 pages of radio stuff — from portable shortwave receivers to antennas to books. Call them at 614-866-4267 and ask them to send you a copy. It's free.

Remember we're always in need of interesting things we can use as illustrations. That includes photos of you and your equipment, station pictures, spare QSL cards you've received, schedules, station brochures — whatever you have!

BY GERRY L. DEXTER



Here's a shot of the Studio Eleven control room at Radio Netherlands.

**Abbreviations Used in Listening Post**

AA	Arabic
BC	Broadcasting
CC	Chinese
EE	English
FF	French
GG	German
ID	Identification
IS	Interval Signal
JJ	Japanese
mx	Music
NA	North America
nx	News
OM	Male
pgm	Program
PP	Portuguese
RR	Russian
rx	Religion/ious
SA	South America/n
SS	Spanish
UTC	Coordinated Universal Time (ex-GMT)
v	Frequency varies
w/	With
WX	Weather
YL	Female
//	Parallel Frequencies

Needless to say your reception logs are always wanted, too. We make every effort to use most, if not all, of the logs sent in, so don't be shy or feel yours aren't good enough. They are! Just be sure to list your logs by country and leave enough space between then one so we can navigate scissors easily. Logs are cut into strips and then sorted by country, so be sure to use only one side of the paper otherwise some of your logs won't survive. Also include your last name and state abbreviation after each logging. As always, thanks so much for your continued interest and participation. Note that we don't focus much on logs of transmitters in the continental U.S. submitted by U.S. listeners.

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.

**ALASKA** — KNLS. **9615** at 1532 in CC. Music. address. (Newbury, NE)

**ALBANIA** — Radio Tirana. **6115** at 0245 with IS, ID, time/frequency info, news, "Albanian Press Review," (Jeffery, NY) 0249, //7160. (Newbury, NE) 7270 at 0307 with ID, talks in presumed Albanian. (Brossell, WI) **9540** at 2227 and **6115** at 0330 with IS, ID, schedule for UK and US, news. (Burrow, WA) Trans World Radio, **12070** at 0804 and another day at 0840. (Becker, WA)

**ALGERIA** — Radio Algiers Int'l, **15160** at 2005 with news, ID, Middle East music. ID at 2028 and again at 2100 with schedule. (Burrow, WA)

**ANTARCTICA** — Radio San Gabriel Arcangel, Argentine Antarctica, **15475.6** at 2041 to 2049 close, next day 2025 to 2045 close. Mix of SS talk by man and music segments. (D'Angelo, PA)

**ARGENTINA** — Radiodifusion Argentina al Exterior. **11709.16** at 0200 with EE program. Local music. sports news. IDs. ID at 0259 and into FF at 0302. (Alexander, PA) **11710** at 0200 with EE and E-mail addresses. QSL offer. music. (Newbury, NE)

**ANGUILLA** — Caribbean Beacon. **6090** at 0011 with Dr. Gene Scott. (Newbury, NE)

**ANTIGUA** — BBC. **5975** at 0000; //9915 (Newbury, NE) 0300. (Jeffery, NY) 0405. (Wilden, IN)

**ARMENIA** — Voice of Armenia, **9965** at 2040 with anthem, ID, schedule, and into EE service. (Burrow, WA)

**ASCENSION ISLAND** — BBC relay, **12095** at 2355. (Newbury, NE) **17830** to West and Central Africa at 2000. (Jeffery, NY)

**AUSTRALIA** — Radio Australia, **5995** at 0303 in Pidgin and **6020** in Pidgin at 0907. (Miller, WA) **9580** at 1320. (Newbury, NE) **11880** at 1708. (Burrow, WA) **15515** at 0524. (Limbach, PA) **21740** at 2146. (Jeffery, NY)

**AUSTRIA** — Radio Austria Int'l. **9655** at 0130 in GG. (Newbury, NE) 0316 in GG. (Miller, WA)

**AZAD KASHMIR** — Azad Kashmir Radio. **4790.4**, via Pakistan. at 0155 just above the noise floor with "sweeper" QRM. Possible ID at 0155. (Montgomery, PA)

**BELGIUM** — Radio Vlaanderen Int'l, **9925** at 0805 with comments in DD and rock. //11700. (Newbury, NE) 1830 with "Brussels Calling." Also **11985** (via Bonaire) at 0423. (Burrow, WA)

**BOLIVIA** — Radio Mosoj Chaski. **3310** at 2309 with talk, rustic vocals, ID at 2315. (D'Angelo, PA) (SS or vernaculars — Ed) Radio Eco (presumed) **4409.8** at 2316 with continuous romantic vocals. Poor (D'Angelo, PA) (in SS — Ed) Radio Tropico. **4452.4** at 2331 with long talks by man, occasional rustic vocals, poor but in the clear. (D'Angelo, PA) (SS)

**BOTSWANA** — Voice of America relay, **6035** monitored at 0315. (Newbury, NE) **2045** with address, phone and FAX numbers. (Brossell, WI)

**BRAZIL** — Radio Cultura, **3365** at 0017 with pop and romantic vocals, jingle IDs, commercials and simple "Cultura" IDs between most selections. PP. (D'Angelo, PA) Radio Nova Visao, **11735.2** at 0015 with host, PP talks, ballads, ID at 0030 jingles and choral vocals. (D'Angelo, PA) Radio Riberao Preto, **3205** at 2213 with mainly PP talks, some pop vocals and commercials. IDs at 2215 and 2230. (D'Angelo, PA) Radio Gaucha, **11915** with news in PP at 0029. (Miller, WA) Radio Bandeirantes, **11925** at 2315 with music, PP ID. //9645. (Newbury, NE)

**BULGARIA** — Radio Bulgaria, **7400** at 0000 with IS, ID, schedule, news. (Burrow, WA) **7405** (new? Ed) at 0040 with opera, //9400. (Limbach, PA) **9400** at 0340 with Bulgarian music. (Newbury, NE) 11700 at 2100 with EE program. (Miller, WA)

**CANADA** — CHU. **14670** at 1830 with FF/EE time checks. (Watts, KY) CBC Northern Service. **9625** at 1345 with "Fresh Air." (Jeffery, NY) Radio Canada Int'l. **9755** at 0013. (Newbury, NE) CFRX, **6070** at 0915 with relay of CFRB. (Miller, WA) CFVP, **6030** at 2123 relaying CKMX-1060 medium wave with '70s hits and ID as "CKMX, AM 1060." (Burrow, WA)

**CHILE** — Voz Cristiana, **11960** at 0320 with SS announcer and religious pops. (Newbury, NE)

**CHINA** — China National Radio (CNR) 2. **4850** at 2237 with man and two women in EE talking about Argentina, Buenos Aires, restaurants and night life, etc. Woman in CC at 2255. (D'Angelo, PA) CNR program one, **5880** in CC at 1538 and **6110** in CC at 1544. CNR-5 on **5090** at 1635 in CC. CNR-6, **6790** in CC at 1606. (Becker, WA) Voice of

Pujiang, Shanghai, 5075 in CC at 1531. (Becker, WA) Fujian People's Broadcasting Station, 4975 in CC at 1143. (Becker, WA) Nei Menggu, Hohot, 4525 in CC at 1251. (Miller, WA) China People's Broadcasting Station, Beijing, 5010 in CC with ID at 2230. (D'Angelo, PA) China Radio Int'l, 7405 at 1440 with EE features. (Newbury, NE) 9730 in EE at 0408. (Limbach, PA) (via *French Guiana — Ed.*)

**COLOMBIA** — Radio Nacional, 9635 at 0157 in SS with music. (Miller, WA) 2332 in SS with Andean and other Latin styles. (Newbury, NE)

**CONGO (Rep.)** — RTV Congolaise, Brazzaville, 9610 in FF monitored at 1550 with man announcer, African music, drums. (Newbury, NE)

**CONGO (Dem. Rep.)** — Radio Nacional Congolaise, Kinshasha, 15245 at 1513 with woman, later man, in FF. (Newbury, NE)

**COSTA RICA** — University Network, 5030 at 0433 with Dr. Gene Scott. (Newbury, NE) RFPI, 15048 at 0023. (Newbury, NE)

**CROATIA** — Croatian Radio, 9830 at 0815 in Croatian. Man talking to a woman on the phone. (Newbury, NE)

**CUBA** — Radio Rebelde, 3600//4200//5025 at 0945 with SS music, talks and back to music. Rooster crow at 1000. Too weak to copy a possible ID at 1000. 3600 is 6x the 600 kHz mediumwave station there. (Montgomery, PA) Radio Havana Cuba, 6000 at 0412. (Wilden, IN) 9820 at 0143 with "DX'ers Unlimited." (Newbury, NE) 13750 in EE at 2031 with program preview, news. (Jeffery, NY) China Radio Int'l, 9570 via Cuba in CC to North America at 1210. (Becker, WA)

**CZECH REPUBLIC** — Radio Prague, 7345//7385//9435 at 0400 with news, weather, ID. Seemed to be different feeds on different frequencies. (Burrow, WA) 9435 at 0425 with accordion music, IS of Dvorak melody on trumpet. (Newbury, NE) 0405 and 11600 at 0451. (Limbach, PA)

**DENMARK** — Radio Denmark, 9945 via Norway, 0350 in DD. (Brossell, WI) 18950 via Norway at 1628 with IS, sign-on. (Newbury, NE)

**DIEGO GARCIA** — Armed Forces Network 12689.5 USB, at 0512 with country and 2138 with news. (Jeffery, NY)

**DOMINICAN REPUBLIC** — Radio Villa, 4960 at 0340 with salsa and SS talk, ID. (Newbury, NE) 0423 with continuous music. (Jeffery, NY)

**ECUADOR** — HCJB, 9745 at 0302. (Newbury, NE) 11840//9745 at 0438. 17660 at 1910 with "DX Party Line." (Limbach, PA) Radio Baha'i, tentative, 4950.1 at 1033 with child in SS, short talks and local music. Same child back at 1042. (Montgomery, PA) Radio Progreso, 5060.1 at 0016 with man in SS, IDs at 0046 and 0056. man/woman with reverber announcements. (Montgomery, PA)

**EGYPT** — Radio Cairo, 9780 in AA with Koran at 1524. (Becker, WA) 9900 in EE at 0018. (Newbury, NE) 0347 in AA. Also at

2045 in FF. (Brossell, WI) 1315 in AA. (Northrup, MO) 2115 in EE with time pips, ID, music. Again at 2129 and 2215. ID as "English service of the Voice of Africa." EE service ends at 2244. (Burrow, WA)

**ENGLAND** — London Radio Service, via WWCN, 5070 at 0230. (Watts, KY) BBC, 6175 via Canada at 0400. (Jeffery, NE) 9515 (via Canada) at 1330. (Northrup, MO) 11765 (via South Africa) at 0433 with "Network Africa." 17830 (via Ascension) with concert program at 1945, //15400. (Limbach, PA) 15420 via South Africa at 1844. (Miller, WA)

**EQUATORIAL GUINEA** — Radio Africa, 15184.9 at 1640 in FF with phone contacts. (Newbury, NE) 15184.8v at 1845 with U.S.-produced EE religious programming; "Hour of Decision" and others. ID and addresses for reports at 1936. Sign-off and long national anthem. Varied between 15184.7–15184.88. (Alexander, PA) 2219 with religious talks, program change at 2230. (Montgomery, PA) Radio Nacional, Malabo, 6249. News by man in SS, music, marimbas and children singing. Lost at 2208. (Montgomery, PA) 2136 with SS talks and highlife vocals. (D'Angelo, PA) Radio Nacional, Bata, 5003.4 at 2141 to close at 2202. Long SS talks until sign off announcements and long orchestral anthem. (D'Angelo, PA)

**ETHIOPIA** — Voice of the Tigray Revolution, 6315 at 0330 with news, fanfare, ID, music, talk. Severe utility QRM. //5500 was in the clear. (D'Angelo, PA) 0355 with flute music. Normal start up is normally an hour earlier. Apparent news in Tigrinya at 0401. //6315. (Montgomery, PA) 0355 sign-on with stringed instrument, sign on announcements at 0401, Amharic talk, and local music at 0407. Good. Fair on //6315 but with RTTY QRM. (Alexander, PA) Radio

Fana, 6209.9 at 0336 with lively Horn of Africa vocals, multiple IDs at 0339. Fair on this and //6940. (D'Angelo, PA) 6940//6210 with announcements at 0410, music, more talks. (Montgomery, PA) 0328 sign-on with IS, opening ID. Amharic talks, local music. Weaker on //6209.9. (Alexander, PA)

**FINLAND** — YLE Radio Finland, 9580 at 0050 in Finnish. 15400 at 1412 in Finnish. (Miller, WA) 1520 with talk and rock, ID. (Newbury, NE) 1345 with talks and news. (Weronka, NC)

**FRANCE** — Radio France Int'l, 11615 at 1625 with news. //11995, 12015, 15210. (Newbury, NE) 11955 via Gabon with FF news at 2132. (Miller, WA)

**FRENCH GUIANA** — China Radio Int'l, 9730 at 0401. (Newbury, NE)

**GABON** — Africa No. One, 15475 at 1654 with music, time pips, news in FF. (Burrow, WA) Radio France Int'l relay, 11955 at 2004 with pops and screaming DJ in FF. (Brossell, WI) 12150 in FF at 2150. (Newbury, NE)

**GERMANY** — United Methodist Church via Julich, 0359–0458 on 13685. (Silvi, OH) 15485, 1753 to 1859 close. Postal address as 475 Riverside Dr., NY, NY 10015. E-mail as radioint@gbgm-umc.org and fax as 212-870-3748 for listener reports. Good signal but //13810 only fair. A test broadcast but apparently commitments have been made for full-time operation. (D'Angelo, PA) Deutsche Welle/Voice of Germany, 6040 (via Canada) at 0110. (Limbach, PA) 9700 (via Antigua) at 0319. (Miller, WA) 9765 (via Canada) at 0130; 11795 (Bonaire) at 0525; 15410 (Antigua) at 2110; 17835 (Rwanda) at 2110 and 21780 (direct) at 1618, all in EE. (Limbach, PA) 17730 (Antigua) at 1649. (Newbury, NE)

**GHANA** — Ghana Broadcasting Corp.,



Another control room half a world away — at China Radio International.



3366 with classical piano, man in EE, reggae at 2155, ID top of the hour, then news. (Montgomery, PA) **4915** at 2300 in African dialect with organ music in background. (Newbury, NE)

**GREECE** — Voice of Greece, **7475** at 0300. ID in GG and EE, into EE news. (Burrow, WA) Voice of America relay, **9435** at 0427 with sign-off. (Newbury, NE) **15205** at 1358 with IS, ID, "VOA News Now." (Jeffery, NY)

**GUAM** — Armed Forces Network, **5765** USB at 1016 with sports, PSAs for military events. Next day with booming signal at 1200 and non-stop rock. (D'Angelo, PA) 1620. (Miller, WA) 1205. (Watts, KY) KTWR/Trans World Radio, **15330** from 1427 sign-on with IS, man announcer opening usual religious fare. (D'Angelo, PA) Adventist World Radio, **11625** at 1521 in Hindi. Flute with percussion, EE ID. (Newbury, NE)

**GUATEMALA** — Radio Buenas Nuevas, **4799.7** with pretty ballads, "Onward Christian Soldiers" at 1115, ID in SS at 1116. (Montgomery, PA) Radio Verdad, **4052.5** at 0051 to 0109. Piano music to ID and sign-off announcements by man at 0056, brief music, elaborate choral national anthem. Off at 0109. (D'Angelo, PA) 0245 to 0302 close. SS talk, religious music, ID, long vocal national anthem. (Alexander, PA) Radio Cultural/TGNA, **3300** with EE preacher at 0355. (Newbury, NE)

**HAWAII** — Armed Forces Network, **10320** at 0340 with "Wheel of Fortune," anti-smoking PSAs. (Newbury, NE) **0358** with weather for Asia and the South Pacific. (Barton, NM)

**HONDURAS** — Radio Costena, **4930** with SS religion and religious pops at 0435. (Newbury, NE) 1204 with female giving ID. Mostly continuous music. (Montgomery, PA) Radio Luz y Vida, **3250** with several IDs by man at 1100. Mostly continuous SS ballads. (Montgomery, PA)

**HUNGARY** — Radio Budapest, **7135** at 2015 to 2030 close. DX program. (Brossell, WI) **9835** at 0330 with various reports. (Burrow, WA) 0401 with program and schedule info. (Newbury, NE) **11905** in HH at 1417. (Miller, WA)

**ICELAND** — Armed Forces Network, **10320** at 0343 with basketball coverage: 0506 with PSAs and music. (Jeffery, NY) Icelandic State Broadcasting Service, **11402** in Icelandic at 2316. (Newbury, NE)

**INDIA** — All India Radio, Calcutta, **4820** in Hindi at 1406. (Miller, WA) **4920** from Chennai at 1220 with apparent interview, brief talk at 1228 prior to music segment, time pips at 1230, network ID and news. (D'Angelo, PA) **10330** with Indian music at 1310. (Northrup, MO) **11620** at 0123 with sitar, pipes. (Newbury, NE) **11715** at 2107 and **13750** at 1920, both EE. (Burrow, WA) **13620** with Indian music at 0245. (Watts, KY) **15075** at 1205. (Barton, NM)

**INDONESIA** — Radio Republik Indonesia, Ujung Pandang, **4753.3** at 2154 with

music and some II talk prior to Song of the Coconut Islands at 2159, RRI ID and Jakarta news. (D'Angelo, PA) 1138. (Miller, WA) RRI Ambon, **4845**, with continuous sub continental music, man with short talks, more music, ID at 2304. (Montgomery, PA) RRI, Jambi, **4925** at 1204 with Jakarta news in II including numerous remote reports. Brief drum at 1216, generic RRI ID by man and quick Jambi ID by woman, and back to the network. (D'Angelo, PA) Voice of Indonesia, **9525** at 1204 in II with news, music. (Newbury, NE) 1852 with GG news. (Miller, WA)

**IRAN** — Voice of the Islamic Republic of Iran, **7115** at 1618 in EE with various talks, ID, schedule and frequencies. Into another language at 1630. (Burrow, WA) **15084** at 0133 with AA singing. (Newbury, NE)

**IRAQ** — Radio Iraq Int'l, **11784.96** from 1932 sign-on. AA music and talk, Koran at 1947. Covered by Germany sign-on at 1957. (Alexander, PA) **11786** with woman in AA at 0327, EE ID at 0332: "Radio Iraq, Baghdad," followed by AA singing. Poor modulation. (Brossell, WI) **11787** at 0325 with AA music. Garbled. (Newbury, NE)

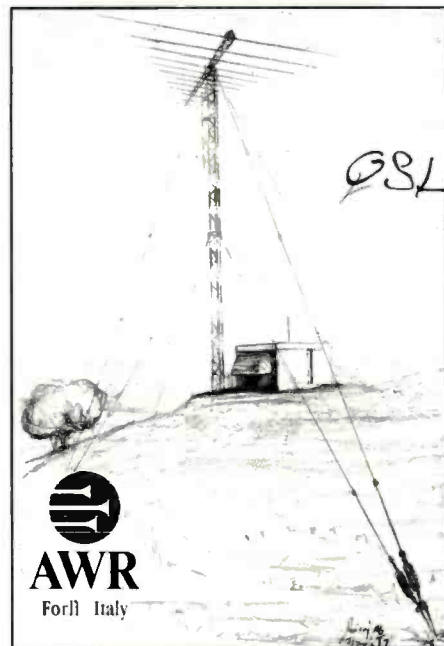
**IRELAND** — Radio Telefis Eireann, **6155** via England at 0130 with news, weather, financial report. (Newbury, NE) **13640** via Canada and **21630** via Ascension at 1830 with Irish news. (Burrow, WA)

**ISRAEL** — Kol Israel, **9435** at 0500 with EE news. // **11605**. (Limbach, PA) **11590** in HH at 0446. (Newbury, NE) **11605** at 1659 with IS, time pips, HH news, EE news at 1701. Off at 1729. (Burrow, WA) **15760** in HH at 1848. (Miller, WA) Galei Zahel, **6973** (new) at 0115 to 0700 close. HH talks, local pops, phone talk, ID, news. Switches to **15785** after 0700 sign-off. (Alexander, PA)

**ITALY** — IRRS, Milan, **7120** with ID at 2338 and Radio Free Euphoria program. (Montgomery, PA) RAI, **9675** in II at 0045 with ID, anthem and into EE at 0050 with frequencies and times. (Newbury, NE) **11800** at 0050 with news. (Weronka, NC) 0317 in II. ID as "RAI International" at 0324. (Brossell, WI) **15250** at 1905 and off 1906. (Miller, WA) Armed Forces Network, (Sicily) — **110940.5** USB at 0006 and 2146. (Jeffery, NY) 0307. (Newbury, NE)

**JAPAN** — Radio Japan-NHK, **5775.1** with ID at 0015, "Asia in Focus" at 0017. // **6145**. (Montgomery, PA) **6005** in JJ at 0905. (Miller, WA) **6145** (via Canada) at 0017 with "44 Minutes." (Jeffery, NY) **9505//15335** at 1712 with news, ID, "44 Minutes." (Burrow, WA) **11855** (via Ascension) at 2135 with "Music Archives 1980." (Limbach, PA) **17825** at 0308 with ID, news. (Newbury, NE) Radio Tampa, **3925//3945** in JJ at 1247. **6055//6115** in JJ at 0909. (Miller, WA)

**JORDAN** — Radio Jordan, **11690** at 1452 with rock and EE. (Newbury, NE) **17680** at 1450. ID at 1500, "Listeners Choice" hosted by fast talking woman DJ. E-mail requests being accepted. (D'Angelo, PA) 1452. (Weronka, NC) 1555 with discussion, ID, news. (Burrow, WA)



*This Adventist World Radio QSL features a drawing of the Forli, Italy, transmitter site, which will soon be replaced by a new facility.*

**KUWAIT** — Radio Kuwait, **11675** with Koran at 0340. (Brossell, WI) **11990** with "Golden Pages" program at 1800. (Weronka, NC) 1810 in EE with AA music between segments, ID, rock. (Newbury, NE) 1904 with UK-accented EE announcer with "hits" music program. ID 1931 and program explaining Ramadan fasting. (Burrow, WA) **13620** in AA at 1415. (Barton, NM)

**LAOS** — Lao National Radio, **6130** at 1152. Talk by woman, instrumental music and vocal selection until seven big gongs at 1159:30. ID, music bridge and woman with news. Poor. (D'Angelo, PA)

**LESOTHO** — Radio Lesotho, **4800** at 0345 in EE with mentions of Africa. (Newbury, NE)

**LIBERIA** — ELWA, **4760** with religious program. Charles Martin announcing. ID at 2158 and program/station details. National anthem and off at 2201. (Montgomery, PA) Radio Liberia, **5100** at 2310 with EE news, mentions of Liberia, interviews with their president and vice-president. (Newbury, NE)

**LIBYA** — Radio Jamahiriya, **17725** in AA at 1700. // **15435**. (Newbury, NE) They still have their "Voice of Africa" EE news at 1734-37 and 2034-40 but still have distorted audio. (Alexander, PA) 1726 with EE ID, news. Back to AA at 1730. (Burrow, WA)

**LITHUANIA** — Radio Vilnius, **6120** at 0030 with ID, IS, interviews, schedule and frequency. (Burrow, WA)

**MALAWI** — Malawi Broadcasting Corp., **3380** monitored at 0302. Man with news, ID at 0310, brief talk, tribal vocals. Conversation between two women, another ID, choir vocals. (D'Angelo, PA)

**MALAYSIA** — Radio Malaysia, Kajang,

4845 in unid. language at 1407. 4895 from Kuching, Sarawak in unid. language at 1409. (Miller, WA) 7295. Kajang, at 1613 with mentions of "Radio Four" and "RTM Midnight Magic." (Burrow, WA)

**MAURITANIA** — ORTM/Radio Mauritanie, 4845, 0257 with Koran recitations, music and talk. Still good at 0330. (Brossell, WI) 0412 with AA talk. (Jeffery, NY) 0726 with Koran and man in AA. (Becker, WA) 2315 with long AA talk. (Newbury, NE) Incredible copy with mostly AA and music. No ID — the rarely seem to give one — and some slight QRM from Radio K'ekchi. (Montgomery, PA)

**MEXICO** — Radio Educacion, 6185 at 0327 with SS and folk music. (Miller, WA) Radio Mexico Int'l, 9705 in SS at 0310. (Newbury, NE) 11770 at 2255. (Miller, WA)

**MOLDOVA** — Voice of Russia via Moldova, 7125 monitored at 0401 with news. (Newbury, NE)

**MONACO** — Trans World Radio, 9870 with religious program at 0820. (Becker, WA) 0850. (Newbury, NE)

**MOROCCO** — RTV Marocaine, 7185 with Holy Koran at 0355. (Brossell, WI) 15345 in AA at 1845. (Jeffery, NY) VOA relay, 15240 at 2150. (Newbury, NE)

**MYANMAR** (Burma) — Radio Myanmar, 4725. Started coming up around 1100. Talks and what sounded like C/W ballads. (Montgomery, PA) 1122 with soft vocals to 1130 music segment, ID and news. (D'Angelo, PA) 5985 in unid language. C/W songs. Unid language. (Becker, WA)

**NAMIBIA** — Namibia Broadcasting Corp., 3270 at 0402 with US pops song in FF. (Newbury, NE)

**NETHERLANDS** — Radio Netherlands, 11695 monitored at 1830 sign-on with IS, ID, into DD. (Newbury, NE) 13700 in DD at 1410. (Barton, NM)

**NETHERLANDS ANTILLES** — Radio Netherlands Bonaire relay, 6165 at 0027, //9845. (Newbury, NE) 9590 at 0405. (Limbach, PA)

**NEW ZEALAND** — Radio New Zealand Int'l, 17675 at 0145 with old hits. (Newbury, NE) 0221 with program "Professionals." (Jeffery, NY) 0550 with music, time check at 0600. (Limbach, PA)

**NIGER** — La Voix du Sahel, 5020.5 at 2136 to 2200 close. Mix of FF talk and high-life vocals. Recitations at 2153 prior to sign-off ID, announcements and short choral anthem. (D'Angelo, PA)

**NIGERIA** — Voice of Nigeria, 7255 monitored at 0448. "This is Voice of Nigeria, Lagos." (Limbach, PA) 0500 with ID. "Today in Nigeria." (Newbury, NE) 2030 with news. (Brossell, WI) 7256 as early as 1922 tune, to close heard at 2301 with choral anthem. (Alexander, PA)

**NORWAY** — Radio Norway Int'l, 9590 at 0200 after BBC/Sackville closes. News in NN. (Barton, NM) 0226 in NN. (Miller, WA)

**NORTH KOREA** — Pyongyang Broadcasting Station, 6400 in KK at 1558.

(Becker, WA) Radio Pyongyang, 6575 in FF at 1603. (Becker, WA) 6574//9535//11710 at 1519 with revolutionary music selections devoted to various leaders, socialist thought, ID. Transmitters were drifting in frequency and cutting out. (Burrow, WA) 11710 in EE at 1553. (Newbury, NE) 13760 at 0006. (Jeffery, NY) 15180 at 0030. (Weronka, NC)

**OMAN** — Radio Sultanate of Oman, 9735 in AA at 2205. (Newbury, NE) 2303 in AA. (Miller, WA) 15140 with news items, ID at 1442. (Montgomery, PA) 15335 at 0259 sign on. (Burrow, WA)

**PAPUA NEW GUINEA** — Radio West New Britain, 3235 at 1150 with island vocals, man announcer, and long talk segment at 1203 with EE ID, "Welcome to our program on a Saturday night." (D'Angelo, PA) 1213 with talks in Pidgin between tunes, local C&W. (Montgomery, PA) NBC. Port Moresby, 4890 at with pop tunes at 0820. (Barton, NM) 1216 in EE with pops. (Miller, WA) 1251 "Cross of Island" music, C&W. (Newbury, NE)

**PARAGUAY** — Radio Nacional, 9735 at 0000 with SS news. (Miller, WA) 0220 with light orchestral music. (Watts, KY) 2316 classical music. (Newbury, NE)

**PERU** — Voz de Alabanza, 4410.2 in SS with long talks with program details, ID 0002, into religious programming. (Montgomery, PA) Radio Bambamarca, 4420.9 at 1036 in SS with vocals, TC and ID at 1048. (D'Angelo, PA) Radio Chota, 4890.2 at 2258 with guitar and flute, woman with TC and ID at 2300. Rustic vocals. (D'Angelo, PA) Radio Celendin, 4655, 2321 with ID, and again at 2330 and 2335. ((Montgomery, PA) 0003 with nice Peruvian vocals, chatty announcer with ID between each number. (D'Angelo, PA) Radio Horizonte, 4534.2 at 1048 with Peruvian vocals, long morning talk including ID and TC. (D'Angelo, PA) Radio Cultural Amauta, 4955 at 0958 with soft instrumentals, man with opening ID and ID at 1004 "Esta es Radio Amauta." (D'Angelo, PA) Radio Ondas del Rio Mayo, 6797.6. Man with long talks, occasional short tunes. Tentative ID at 0052 but signal a bit low to be sure. (Montgomery, PA) Radio Ancash, tentative, 4992.5 at 0952 with long-winded man announcer, time checks and morning announcements, mention of Amazonas, so not sure if Ancash. (D'Angelo, PA) Radio Comas, 4881.1 at 1007; woman with Peruvian vocals, man with TC and ID. (D'Angelo, PA) Radio Andina, 4995.6 at 0948 with man announcer over rustic music, nice echo effect ID at 0954. (D'Angelo, PA) Radio Altura, 3340 at 1045 with fast-talking man announcer with ID, alternating with a woman announcer. (D'Angelo, PA) Radio La Voz del Campesino, 6956.57 from 2350 with SS announcements, commercials, folk music, Ids. (Alexander, PA) Radio Andina, 6673.2, 1040 with lively vocals, nice ID by man at 1100. (D'Angelo, PA) Radio Frecuencia, 4485.2 at 2358 with canned echo effect ID at top of hour, then soft instrumental music. (D'Angelo, PA) Radio Municipal Panao,

3172.7 at 0948. Man in SS with brief segments of rustic vocals and occasional IDs. (D'Angelo, PA)

**PHILIPPINES** — Radio Pilipinas, 15190 in Tagalog at 1841. Parallel 11590, 11605, 11730 and 15250. (Miller, WA) 1908 to 1930 close with EE news, ID, business report. Frequent IDs. Sign-off procedure cut in mid-sentence at 1929. This frequency was fair, 11890 was very poor, 11730 poor to fair. (D'Angelo, PA) 1918 with report urging investing in the Philippines. (Burrow, WA) VOA relay, 9760 at 1545 with Special English. (Newbury, NE)

**PORTUGAL** — Radio Portugal, 13770 at 0120 in PP with talk and songs. (Newbury, NE)

**PUERTO RICO** — Armed Forces Network, 6349 USB at 0926 with play-by-play sports. (Miller, WA) 6458 USB at 2149 and 0502. (Jeffery, NY) 6485.5 USB at 0009. (Newbury, NE)

**QATAR** — Qatar Broadcasting Service, 11655 monitored at 0341 in AA to 0344 ID as "Radio Qatar min al Doha" then frequencies and times to abrupt sign-off at 0345. (Brossell, WI) 1710 in AA under Radio Netherlands. (Newbury, NE)

**ROMANIA** — Radio Romania Int'l, 9570 and 11830 poor to fair between 0400-0500, other frequencies inaudible. 7195, 9570 and 9690 heard between 2300-0000, other frequencies unheard due to interference. (Silvi, OH) 9570 at 0357 with IS, music, ID, schedule. (Burrow, WA) 11740 at 2117 with news. (Miller, WA)

**RUSSIA** — Voice of Russia, 7125 (see also Moldova) in EE at 0450, 7180 at 0530 and 11825 at 0120. (Limbach, PA) 7180 from Petropavlovsk at 1517. (Becker, WA) 9765 at 0200 and 13665 at 0250. (Watts, KY) 13665 at 0339. (Barton, NM) 12595 at 0406. (Newbury, NE) Radio Samardinka, 4855 with discussion in RR at 1308. (Miller, WA) Radio Tikhy Okean, 7175, tentative. Local-like carrier only till normal 0900 sign-off. (Becker, WA) (*This is, indeed, active, though not to the extent it was under the Soviet Union.*) Herald Broadcasting, 9880 via Russia at 1225 with religious program, ID. (Newbury, NE) BBC, 7330 via Vladivostok at 1528. (Becker, WA) Deutsche Welle, 5950 via Petropavlovsk in GG. (Becker, WA)

**RWANDA** — Deutsche Welle relay, 13780 in GG at 0305. (Newbury, NE)

**SAO TOME** — VOA relay, 6080 with news at 0605. (Barton, NM) 7290 at 0310. (Brossell, WI)

**SAUDI ARABIA** — Broadcasting Service of the Kingdom, 11820 at 2133 with Koran. (Newbury, NE)

**SEYCHELLES** — Far East Broadcasting Assn., 11600 at 1533 with religious programming. (Newbury, NE) 11885 at 0346 with woman talking about prisons and man with sermon. Off at 0400. (D'Angelo, PA) 15430 at 1746 in unid. language. (Miller, WA) BBC relay, 11730 with news at 0335. (Brossell, WI)

**SIERRA LEONE** — Sierra Leone Broadcasting Service, 3316 at 2130 to past

2200 with group highlife vocals, sprinkled with long talks by man. Gone at 2216 re-tune. (D'Angelo, PA)

**SINGAPORE** — Radio Singapore, 6150 at 1545 with music and call-in requests on the "Late Night Show." Sign off at 1600. (Becker, WA) BBC relay, 9710 at 1440. (Newbury, NE)

**SLOVAKIA** — Radio Slovakia, 7230 at 0123 with "Tourism in Slovakia." (Limbach, PA) 7345 at 1927 with IS, ID, into program. (Burrow, WA) 9444 at 0317 with woman talking. ID, IS. (Newbury, NE)

**SOLOMON ISLANDS** — Solomon Islands Broadcasting Corp., 5020 at 0842 with news in Pidgin. (Miller, WA)

**SOUTH AFRICA** — South Africa Broadcasting Corp., 3220 at 0315 with soft instrumental music under heavy RTTY QRM. (Brossell, WI) Trans World Radio via Meyerton, 7215 in unid. language with gospel singing at 0338. (Miller, WA) Channel Africa, 9525 at 0323 with news drum IS and into EE with world news at 0331. (Miller, WA) 17870 at 1757 with IDs in EE and PP; "Channel Africa to West Africa," followed by news. (Burrow, WA) World Beacon via Meyerton, 11640 at 2115 with Christian pop/rock, ID and address. (Newbury, NE) 11690 at 2128 with music. (Miller, WA)

**SOUTH KOREA** — Radio Korea Int'l, 9870 at 1325 with woman talking. Very weak. (Northrup, MO)

**SPAIN** — Radio Exterior de Espana, 6055 at 0000 ending FF, IS, ID, into EE. (Burrow, WA) "Radio Club" at 0045. (Jeffery, NY) 0147 with SS lesson. (Newbury, NE) 9620 at 0007 in SS. (Miller, WA)

**SRI LANKA** — Sri Lanka Broadcasting Corp., 9770 at 0028 with time pips, ID at 0030, religious talks until 0035, then series of easy listening instrumental selections until ID at 0049. Poor here; much better on //15425. (D'Angelo, PA) VOA relay, 15250 at 0151 with tips for safe and responsible investing. (Newbury, NE)

**SWAZILAND** — Trans World Radio, 7315 at 1430 in PP but beginning to fade by 1440. (Newbury, NE)

**SWEDEN** — Radio Sweden, 9495 at 0229 with IS, ID, "60 Degrees North." (Jeffery, NY) 0247 with travelogue. (Barton, NM) 0314 in Swedish. (Newbury, NE) 0335 with EE discussion; off 0358. (Burrow, WA) 18960 at 1230 with EE to North America. Heard well on a portable receiver with a 2-meter piece of wire on the basement wall! (Silvi, OH)

**SWITZERLAND** — Swiss Radio Int'l, 9885 at 0106. (Newbury, NE) 9905 (via French Guiana) in II at 0322. 12010 (via Singapore) in GG at 1525. (Miller, WA) 11665 with "Swiss Scene" at 0149. (Limbach, PA) 13790 (via Germany) //15555 with report on money laundering in Switzerland. (Burrow, WA)

**SYRIA** — Radio Damascus, 12085//13610 at 1922 in FF. Into EE at 2017 with schedule, program highlights, IDs, news. (Burrow, WA)

**TAIWAN** — China Broadcasting System, 3335 in CC at 1532. (Becker, WA) Radio

Taipei Int'l, 7130 at 1229 with CC music and EE ID. (Newbury, NE) 11740 via WYFR at 0256. Into CC at 0300. (Burrow, WA)

**THAILAND** — Radio Thailand, 9680 at 0004 with national news in EE. 15460 at 0327 with soil erosion report, ID, end of EE, IS. (Burrow, WA) BBC relay, 11955 at 0040. //12095. (Newbury, NE)

**TOGO** — Radio Togo, 5047 at 0523 in FF with African music. (Newbury, NE)

**TURKEY** — Voice of Turkey, 6020 in EE with listener mail at 0427. (Limbach, PA) 7300 in TT at 0310. (Brossell, WI) 9445 at 0150 with Turkish pops and traditional music. (Newbury, NE) 0245. (Barton, NM) 0306 with news, music. (Miller, WA) 9525 at 2201. (Burrow, WA)

**TUNISIA** — RTV Tunisienne, 7275 at 0410 in AA with Western and modern AA music. (Newbury, NE) 12000 (unlisted—Ed.) At 0400 with schedule in AA and FF, news in AA by woman. (Watts, KY) 12005 at 2005 with all AA programming. (Brossell, WI)

**UNITED ARAB EMIRATES** — UAE Radio, Dubai, 13675//15400 at 0340 with Moslem theology, prayers, ID, anthem and EE close at 0349. (Burrow, WA) 15400 at 0333. (Newbury, NE) UAE Radio, Abu Dhabi, 11945 in AA at 0630 with AA music. (Newbury, NE)

**UNITED STATES** — Armed Forces Network, Key West Florida, 12689.5 USB at 0007. (Newbury, NE)

**UKRAINE** — Radio Ukraine Int'l, 9810 at 0400 with IS, ID. Blocked by QRM until 0404 when clear ID and into program of "news, views and interviews." (Burrow, WA)

**VANUATU** — Radio Vanuatu, 4960 at 1045 with long talks and island vocals. Sign off ID and announcements by woman at 1117, orchestral national anthem. Programming ended at 1120; carrier remained on past 1130. (D'Angelo, PA)

**VATICAN CITY** — Vatican Radio, 9600 at 2323 with talk in unid. language. //7305.

(Newbury, NE) 9605 in FF at 0245; into EE after ID, IS at 0250. (Barton, NM) 11830 at 2256. (Miller, WA)

**VENEZUELA** — Ecos del Torbes, 4980 at 0920 in SS with man announcer and Latin music. (Newbury, NE) Radio Amazonas, 4939.5 in SS with ID at 0118, very nice and lively South American type music. (Montgomery, PA)

**VIETNAM** — Voice of Vietnam, 5925 (via Canada) at 1422 in VV. (Miller, WA) 1540 in VV. Some QRM from Voice of Russia. (Becker, WA) 0101 in EE. Also 9795 (via Canada) at 0349. (Burrow, WA) 0337 with news, ID, talk. (Jeffery, NY) 12020 (direct) at 2335. News, ID (Newbury, NE)

**YEMEN** — Republic of Yemen Radio, 9780 at 0356 in AA with local news. Mucho splash from HCJB at 0325. (Newbury, NE)

**ZANZIBAR** (Tanzania) — Voice of Tanzania, Zanzibar, 11734 in AA at 1857, time pips at 1900, news in Swahili. (Miller, WA)

Whew! What a listing! Great work, folks! The mightiest, heartiest thanks possible to the following who checked in this month: Bruce R. Burrow, Snoqualmie, Washington; David Weronka, Benson, North Carolina; Rick Barton, Phoenix, Arizona (vacationing in New Mexico); R.C. Watts, Louisville, Kentucky; Brian Alexander, Mechanicsburg, Pennsylvania; Ed Newbury, Kimball, Nebraska; Sue Wilden, Noblesville, Indiana; Mark Northrup, Gladstone, Missouri; Lee Silvi, Mentor, Ohio; Brian Limbach, Pittsburgh, Pennsylvania; Robert Brossell, Pewaukee, Wisconsin; Dave Jeffery, Niagara Falls, New York; Richard A. D'Angelo, Wyomissing, Pennsylvania and Robert Montgomery, Levittown, Pennsylvania. Thanks to each one of you. Until next month, good listening! ■

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# BROADCAST DXING

DX, News And Views Of AM And FM Broadcasting

## ***KBJD, KRKS, And KNUS Make A DX Test Triple Play***

**A** DX test typically takes place during late night or early morning when radio station maintenance is required. This often includes transmitter and antenna work that cannot be performed during the day because of interruption of regular broadcasting or possible interference with other stations. The FCC allows radio stations to perform tests outside normal operating parameters while most of us are sleeping. Because most AM radio stations operate at reduced power and with directional antenna patterns at night, this can represent a unique opportunity for DXers. A particular station may have to increase to daytime power or change antenna pattern for test purposes. As a courtesy to DXers, some radio stations will inform listeners of test

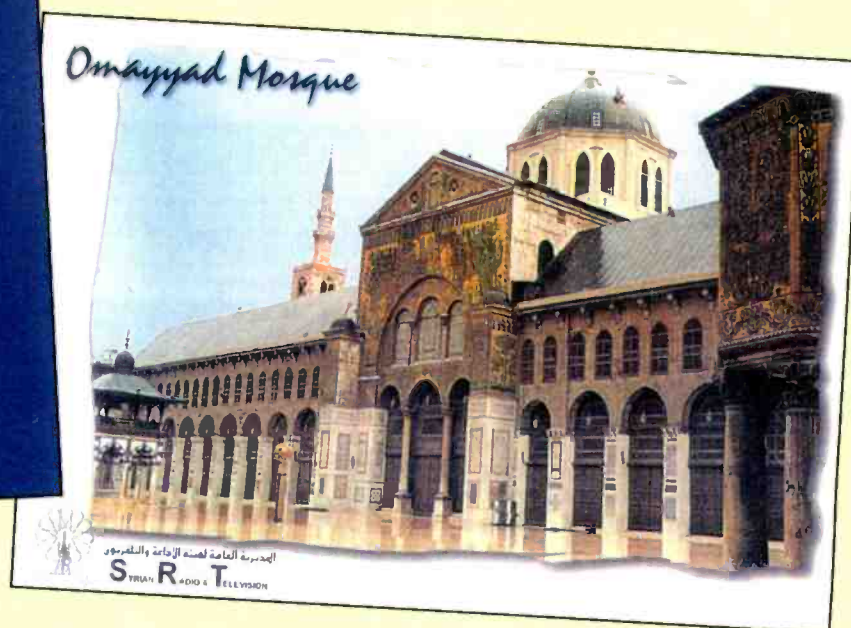
schedules. Special announcements, tones, Morse code, and unique music might be broadcast during testing to aid with identification. In some cases, radio stations have simply inserted Morse code IDs during regular programming while operating as licensed. As any amateur radio operator will attest, Morse code can easily slice through otherwise impenetrable interference. North America's leading mediumwave DX clubs, the International Radio Club of America (IRCA) and the National Radio Club (NRC), both have courtesy program committees to assist radio stations with program materials and coordination of DX tests.

Here's the inside story of a recent DX test from Patrick Griffith, who describes the testing of KBJD, KRKS, and KNUS

in Denver, Colorado. Special programming was to be simulcast on all three stations during the test, but right away they ran into some technical difficulties. Patrick explains, "There were a few last minute changes in the plans. About an hour before the test began they realized that they were going to have a problem switching the automation to and from simulcast before and after the test. So it was decided to program each station's automation separately. Separate Morse code IDs were made and loaded into the hard drive at the last minute. When the test began the automation only had about 20 minutes of programming in it for each station. The remainder of the programming was done on the fly while the test was actually in progress! All three sta-



*Sticker and QSL card from Syria on 783 kHz.*



BY BRUCE CONTI <BAConti@aol.com>

<u>Pending</u>				New Call	Location	Freq.	Old Call
New Call	Location	Freq.	Old Call				
				KHJC	Lihue, HI	88.9	New
				KYZK	Sun Valley, ID	107.5	New
KAKK	Walker, MN	1600	KLLZ	WIFF	Binghamton, NY	90.1	WJIK
WWMY	Kentland, IN	101.7	WZRK	WYSM	Lima, OH	89.3	New
				KZXV	Seminole, OK	89.1	New
				WBHD	Carbondale, PA	94.3	WCTP
				WOXX	Franklin, PA	99.3	WFRA-FM
				WGYY	Meadville, PA	100.3	WZPR
				WGYI	Oil City, PA	98.5	WOYL-FM
				WXDX-FM	Pittsburgh, PA	105.9	WXDX
				WHUZ	Saegertown, PA	94.3	WMDE
				KDWG	Dillon, MT	90.9	New
				WTCK-FM	Middleton, TN	100.7	WTCK
				WRKK-FM	Sparta, TN	105.5	WSMT-FM
				WTNE-FM	Trenton, TN	97.5	WWEZ
				KJNZ	Hereford, TX	103.5	KHFD
				KAMZ	Tahoka, TX	95.3	KAWD
				KBDX	Blanding, UT	92.1	New
				WDRV	Front Royal, VA	95.3	WFTR-FM
				WFMR	Brookfield, WI	106.9	WJMR
				WBZU	Wausaukee, WI	105.1	WYZM
<u>Changes</u>							
New Call	Location	Freq.	Old Call				
WARL	Attleboro, MA	1320	WJYT				
WXDX	Dearborn, MI	1310	WYUR				
WGME	Watertown, NY	1410	WUZZ				
WGIT	Canovanas, PR	1660	New				
WTCK	Bartlett, TN	1210	WWGQ				
WKDA	Madison, TN	1430	WQCQ				
WQDQ	Nashville, TN	1200	WKDA				
CJYE	Oakville, ON	1250	CHWO				
CHWO	Toronto, ON	740	New				
KMJG	Homer, AK	88.9	New				
KOHN	Sells, AZ	91.9	New				
KLVK	Coalinga, CA	88.3	KAZB				
KFYE	Kingsburg, CA	106.3	KLVK				

tions carried Morse code IDs, long solid tones, and march music, but not in simulcast.

"They had been having trouble with the 1650 transmitter for a few days and were running the daytime power at about 2,000 watts. However, it went right up to 10,000 watts tonight and stayed with no problems. KBJD 1650 ran 10,000 watts the first half-hour and back to 1,000 watts the second half with the usual U-1 non-directional tower. KRKS 990 ran 4,500 watts non-directional the first half hour and 390 watts U-2 the second half. The directional pattern puts almost the entire signal to the south in a wide half circle. KNUS 710 ran its usual 5,000 watts U-3 for the entire test. The pattern is mostly north-northeast and south-southwest with almost nothing to the northwest and a very slight lobe to the southeast.

"We received E-mail and telephone calls during the broadcast as follows: KNUS 710 — Arizona, Utah; KRKS 990 — Arizona, Oregon, Utah; KBJD 1650 — Arizona, California (3), Illinois, Maryland, Oregon, Utah, Washington, Wisconsin, and Ontario. The station staff had such a good time that they are already talking about doing it again, maybe in March. Special QSLs will follow all written reports."

Patrick became the QSL coordinator for KBJD when they first signed on the x-band, and helped to coordinate the effort with sister stations KRKS and KNUS. For a current list of scheduled DX tests, visit Werner Funkenhauser's "Whamlog" Website, go to Lists and Links, and click on "DX tests listed on the IRCA page" for access. Just type Whamlog into your search engine to get started, and while you're there check out some of the other informative mediumwave links available from this outstanding site.

DX tests aren't limited to radio stations in the U.S. and Canada. **HCJB Quito, Ecuador** has run several successful DX tests on **690 kilohertz** from two transmitter sites. They were heard from as far away as the Canadian Maritimes and New Zealand. Radio Centre, Kurovskaya, **Russia, on 1485 kilohertz**

produced two special DX programs this past year with bilingual features in English and Russian. An extended Moscow Calling broadcast included interviews conducted by Radio Centre's program director Andrei Nekrasov during visits to WJCR, KNLS, WYFR, and the Voice of America. (Sergei Sosedkin via AM DX Newflash)

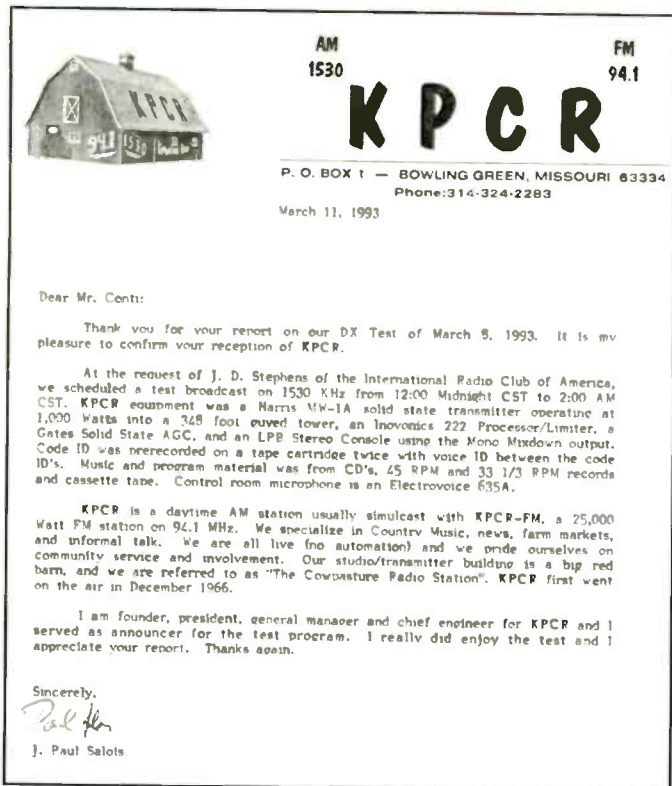
Radio station testing isn't always scheduled. Repairs sometimes require immediate attention, and the early morning is the only time available. Ron Gitschier recently hosted an impromptu DX test at WGSF Fernandina Beach, Florida, on 1570 kilohertz. Ron went on the air just before midnight until 4 a.m. with pop music from the 1970s. Power was 10 kW non-directional during most of the test period. The engineer turned power down to 30 watts about 3:30 a.m. DXers in Florida, Georgia, Kentucky, South Carolina, Tennessee, Texas, and tentatively in Ontario received WGSF. After the success of this test despite the lack of publicity, Ron hopes to be able to do it again with advance notice of future test periods.

DX tests are often scheduled for Saturday, Sunday, and Monday mornings between midnight and sunrise. So if you happen to be experiencing a bout with sleeplessness, it might be worth getting out of bed to take a spin across the dial. You never know what you might find!

## QSL Information

**580 KANA Anaconda, Montana**, note on station letterhead simply stating that I heard KANA, received in nine days. The station's address is 105 Main Street, P.O. Box 580, Anaconda, MT 59711. (Martin, OR)

**783 R. Syria, Tartus, Syria**, QSL card, Syrian Radio and Television sticker, and Syria Times newspaper in 147 days by registered mail for a report in English and two IRCs, signed by Director of Radio Damascus. Indicates power of 500 kW.



*This verification letter was the reward for catching a late night DX test from KPCR, Missouri.*

Address is: P.O. Box 4702, Damascus, Syria. This is a different address than the one listed in the EMWG and 2001 WRTH. (Conti, NH)

**790 KOOR Clovis, California**, received in 28 days, "verified" written at the bottom of my reception report and signed Rych Withers-Eng. Address is 1071 W. Shaw Ave, Fresno, CA 93711. (Martin, OR)

**981 Southern Star, Timaru, New Zealand**, QSL card and letter in 60 days from Brian Fegusson-PD for taped report. Address is Southern Star, Private Bag 92-636, Symonds Street, Auckland, NZ. New Zealand MW QSL #106. (Martin, OR)

**1170 KPUG Bellingham, Washington**, verification letter along with bumper sticker and sports schedules in seven days, signed Joseph Ponder-Promotions Direction. Address is 2219 Yew Street Road, Bellingham, WA 98226. (Martin, OR)

**1220 CJOC Lethbridge, Alberta**, letter, CFRV-FM postcard and sticker, and business card in 30 days for report and U.S. \$1. Letter states they have simulcast CJRX-FM 106.7 (Rock 106) since 01/00. Signed Darren Pepin, Engineering Manager. Address: 1015 3rd Ave S, Lethbridge, AB T1J 0J3. The letter seems to indicate that they are now authorized to use the call sign CJRX-FM on 1220. It states that 1220 was "formerly CJOC-AM." In fact, CJRX-FM is the only call sign I heard during this reception. (Griffith, CO)

**1314 2ZW Wollongong, Australia**, received in 30 days. It's one of my best QSL packages ever! Besides a QSL letter, I received a 2KY logo T-shirt, two key chains, 2KY pen, two stickers, and even a 2KY Racing Radio logo cap. I sent return

postage with my report, but it cost them \$17.60 Australian to mail this. Signed Samantha Randell, Public Assistant to Max Carter CE. Address for 2ZW is 2KY, P.O. Box 1303, Parramatta NSW 2124, Australia. Australian MW QSL #221. (Martin, OR)

**1330 KJLL Tucson, Arizona**, letter in 10 days signed Don Wiggins-GM. Address is 4320 N. Campbell, Ste. 234, Tucson, AZ 85718. (Martin, OR)

**1430 KQLL Tulsa, Oklahoma**, partial data letter and AM 1300/AM 1430 SportsRadio bumper sticker in 68 days for report and \$1, signed Clark H. Dixon, CE. Letter refers to the station as both KQLL and KAKC. KAKC is the sister station on 1300 and I presume this is a typo. This was a very unusual reception since I was hearing them over local KEZW on the same frequency. Dixon wrote that he was unable to determine if they were doing anything 'unusual' that night such as transmitter or antenna maintenance. Address is 5801 East 41st St, Suite 900, Tulsa, OK 74135. (Griffith, CO)

**1650 KWHN Fort Smith, Arkansas**, verification letter in 36 days, signed Garry Elmore. Address is 423 Garrison Avenue, Fort Smith, AR 72901. (Martin, OR)

**1680 KAVT Fresno, California**, detailed letter in 37 days signed Paul Shinn, CE. Mentioned KAVT test was only running 5 kW days and 1 kW nights, to be on the air full time carrying Radio Disney. Address is 139 W Olive Avenue, Fresno, CA 93728. (Martin, OR)

## Broadcast Loggings

CHWO Toronto is on the air at 740 kilohertz, replacing CBL. Charlie Manning of Rochester, New York, laments the loss of the CBC on 740: "I am one of many in this area that enjoyed tuning in to CBL 740 when it was CBC. CBL offered a refreshing slant on the news from across the border. We were disappointed when the CBC went to FM for there is no way to pick up their signal from here. Of course, getting CBC is no major obstacle with RCI and the Internet, but tuning into CBBL was much more convenient."

CHWO was originally planning to sign on as CFPT Prime Time Radio, but the CRTC denied their request for new call letters. So instead the former home of CHWO has become CJYE Joy 1250, with the CHWO call letters now on 740. A similar call letter snafu occurred when 940 kilohertz was resurrected in Montreal. They originally signed on the air testing as CKNN 940 News, only to later become CINW after the CRTC rejected their request.

In addition to CHWO, Patrick Martin experiences some of the best transcontinental reception conditions in a long time, and Mark Connelly continues to find transatlantic signals despite increasing solar activity. Here are this month's selected logs, all times are UTC.

**640 WGOB Blountville, Tennessee**, at 2150, "Your home for the Hokies, WGOB" heard through a mix of WHLO, WNNZ, and CBN. (Conti, NH)

**720 Oriente 720, Porlamar, Venezuela**, at 0130 with many Radio Venezuela IDs during futbol play-by-play, mention of multiple stations including Radio Barinas and Valencia 1220. (Conti, NH)



# SCAN TECH

Trunking, Tips, Techniques, And Mods

## Software For The R2, An Active Antenna, And Some New Publications

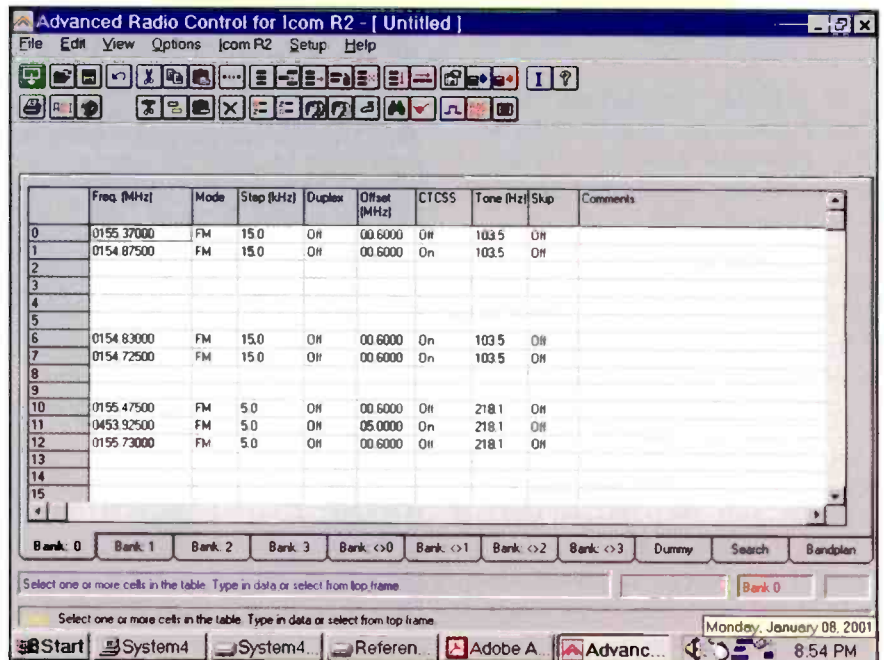
Welcome to the potpourri edition of "ScanTech." We've got a lot of small issues to look at this month, so let's get right to it.

Some months back, you may recall we had a discussion of the ARC-8200 program by Butel software for the AOR AR-8000 and AR-8200 handheld scanners. Well, they've done it again with a program for the ICOM R-2 and we thought it was worth a look.

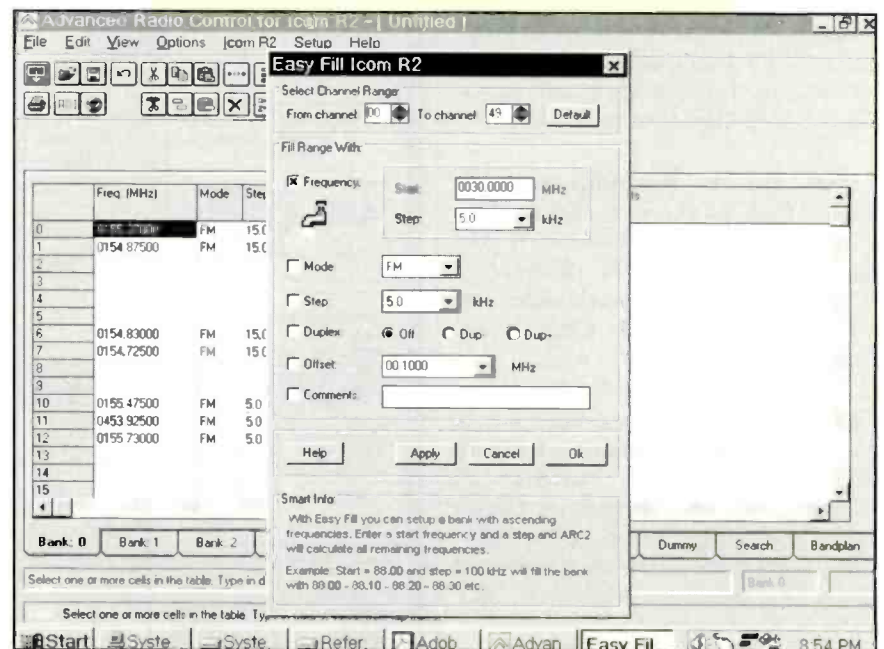
Just to refresh your memory, the R-2 is a small wide band receiver from ICOM. Besides its small size, the most notable feature of the R-2 is a lack of keyboard (like most miniature receivers) for frequency entry. The R-2 handles this fairly well, allowing for rapid movement between frequencies with a combination of buttons and dial access. However, it's quite a chore to load memories into the radio, particularly if you want to program all of them for a road trip. It's so much work, that you probably would opt for another radio, or decide not to do it unless you were going someplace for several months worth of listening. I can't see reprogramming the entire R-2 for a weekend trip or even a family vacation — without software like ARC-R2.

Operation of ARC-R2 couldn't be much simpler. The program's main screen looks a bit like a stack of index cards with each card representing one of the eight channel banks, plus a card for the band plan and search ranges. There is also a "dummy" bank, which acts like a flexible clipboard for temporary storage of information. You do have to remember, however, that the dummy bank is not sent to the radio, and unfortunately, is also not stored with the data file.

In each of the memory banks, there is a spreadsheet-type layout which shows the memory channel numbers down the left side of the page, followed by frequency, mode, step, duplex, offset, CTCSS, tone, skip, and finally comments. Everything but the comment field is loaded into the radio, and typing on a computer keyboard is much easier than



Butel's ARC-R2 control software is easy to use even without the help system. Each bank has its own "card" on the screen and data entry is a snap.



Easy Fill simplifies data entry even more by allowing you to fill in items like mode that don't change much. It's a real timesaver once you use it a couple of times. Don't forget to tell it which memories you want changed!

BY KEN REISS <armadillo1@aol.com>



manipulating the controls for the R2 memory storage directly.

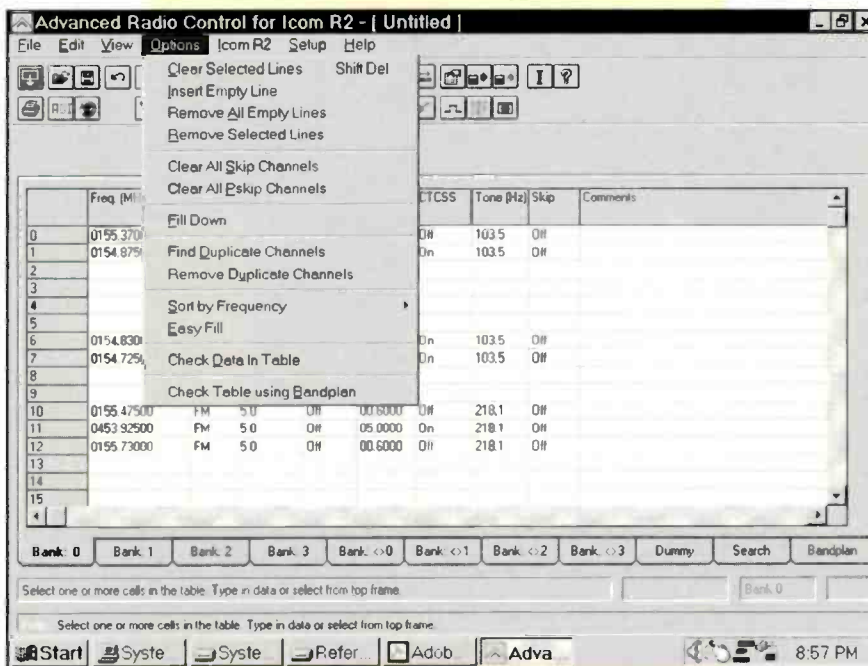
One of the neatest features of the ARC series, and ARC-R2 is no exception, is the easy fill option. This can be used to fill in the blanks in the memory positions quickly and easily in just a few key-strokes. A good example of this is the mode and step settings, which are usually the same in most of the frequencies you'll be entering. It's simply a matter of selecting the mode and step that you wish and telling the program to fill that data in all memory channels. You can also use it to change the data in just a few channels if you wish.

ARC-R2 also will export a CSV (Comma Separated Values) file for import into many database and spreadsheet-type programs if you'd prefer to work on the information there, or if you already have data in one of those type programs. ICOM's own software stores data in CSV files as well and there are facilities to import these files directly into ARC-R2.

You'll have to use the "advanced data import" function to import the data back in from a CSV file, but once you play with this feature for a while you won't mind a bit. In addition to importing frequency information from CSV files, you can also import from TXT, tab-separated files, and HTML! If you find a web page full of frequency information, it can be imported into ARC-R2 quickly and easily. This feature alone is well worth a look at the excellent ARC series if you have any of the radios that are supported. If you don't, there's a program called "Webcatcher" which will extract the frequency information to a file directly from almost any web page. You can find these programs at their excellent and informative web site, [www.butel.nl](http://www.butel.nl).

ARC-R2 also features some very useful reporting capabilities if you'd like to have a hard copy to file away or to carry along with you so you can remember what's where in memory. This would certainly be useful information to have if your hard drive suddenly crashed, but I found the program so convenient to work in that reporting was unnecessary. Of course, you realize how to fix the hard drive crash, don't you? Get out the backup and restore it!

Butel also offers a PC interface cable if you don't already have one. It's \$32 and well constructed. If you have the ICOM cable or programming kit, you can use that cable as well. ARC-R2 is currently \$22 by itself, or you can get the software and cable for \$59 shipped to the U.S.



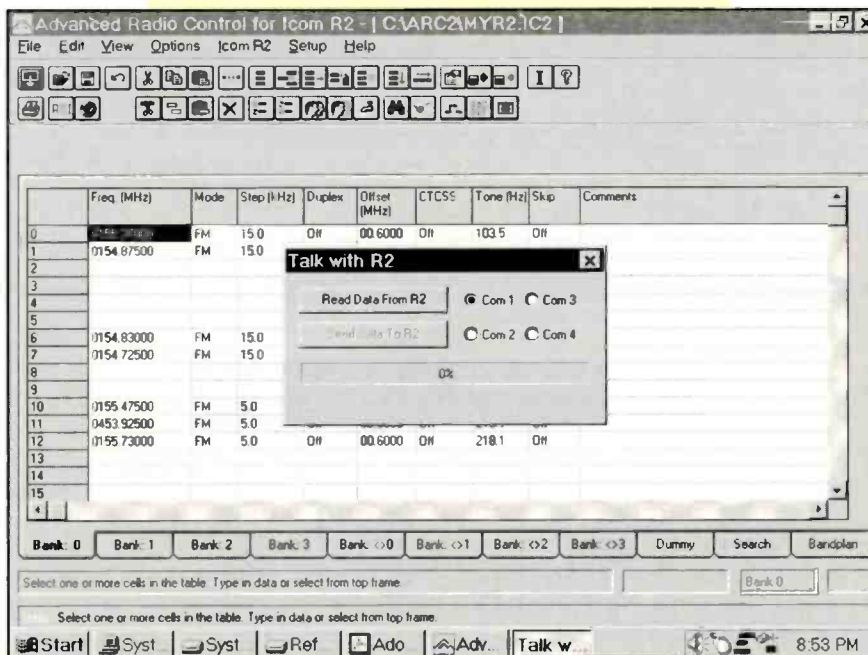
*There are plenty of convenient features hidden under the options menu too. You can remove empty channels, sort channels and even ask the program to verify that the data you have entered is correct for downloading to the radio.*

Shortly, there will be a North American dealer so that shipping times can be improved, but as this is written all orders must be placed through the Netherlands.

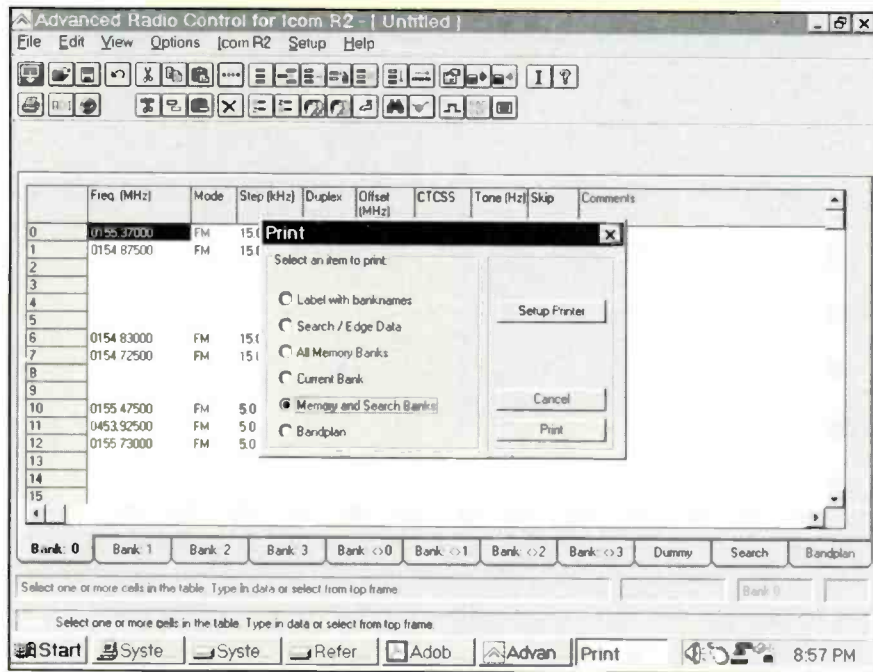
Demo versions of all their software can be downloaded from the web site so that you can try before you buy. Note that all of the demos are restricted in some way. In the case of the R2, the demo version will not send data back to the radio, but

it will read memory information from your radio if you have a cable. This is more than adequate to get a feel for how the software works and decide if you want to use it or not.

Overall, the ARC series is an excellent one, and ARC-R2 is no exception. The programs are well thought out and convenient to use. Yet there's a great deal of power under this simple front end, all of



*Sending data to and from the receiver couldn't be much simpler either. Choose which way you want to send information from the menu and set the COM port right here just before you send or receive data. In about a minute, your R2 can be completely loaded for a new event!*



Many print options are available from the data table as well if you'd like to have a version to file or carry with you.

which is designed to make managing frequencies and memories on your R2 as painless as possible. I can't wait for the R3 version! Check it out!

## Active Antenna

A good way to spark a lively debate among shortwave enthusiasts is to mention the topic of active antennas. Some are

passionately for them, while others are just as passionately against them. If you've ever used one, you'll know that they can be either the greatest thing since the super heterodyne or a royal mess causing overload and other undesirable effects. A lot of the usefulness of these antennas depends on your receiver and its location in relation to other sources of high-level signals.

With that in mind, a new twist on active antennas has recently arrived here at "ScanTech" HQ. Leonard Trembley of Seaside, CA writes "... I manufacture a product called the ACTIVE DUCK antenna currently sold (exclusively) by Grove. ... its primary function is as a miniature active shortwave antenna for the new handheld scanners that have BC/HF coverage.

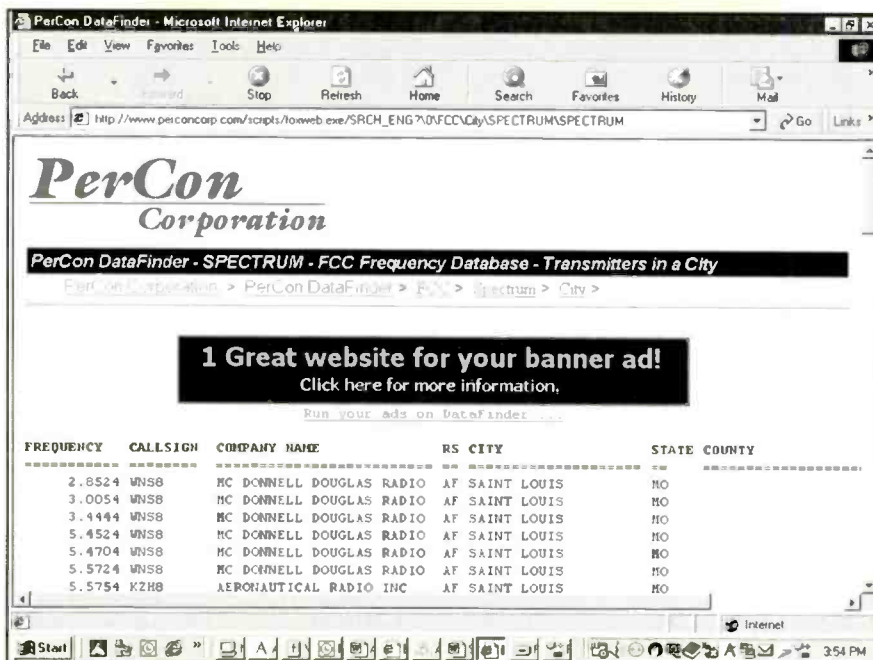
I purchased an ICOM R-10 last year, and ended up using a 36-inch extended whip to monitor some shortwave and ham frequencies. I quickly became concerned about the stress on the connector and as an RF Engineer, I knew the answer was a miniature active antenna. After an unsuccessful search for one, I decided to design one for myself and this is the result. Overall height is only 6 inches, yet its performance easily rivals a 36-inch whip antenna.

The amplifier on the active duck works in the .5- to 60-MHz range, so its primary focus is HF and VHF low. Keep in mind that many of the portable wideband receivers have a ferrite core antenna used on mediumwave frequencies (.5 to about 1.5 or 2 MHz) so it may or may not help reception in those ranges. Check your owner's manual for details if that's your primary interest.

In the HF range and VHF low ranges up to about 45 MHz where I was able to test it does make a significant difference over standard rubber-duck-type antennas which are usually designed for much higher frequencies. Above 60 MHz, while the active duck does still work in the unamplified mode, I found that I prefer my standard antenna both for reception and portability. The Active Duck is not fragile in construction, but the small amplifier box made me a bit nervous for just carrying the radio around and listening to normal public-safety-type stuff that is mostly VHF and above.

Battery life is claimed to be 24 to 32 hours and I suspect that this is about correct. I did find myself forgetting to turn it off a few times, shortening the "useful" life of the battery. The battery is a fairly available Duracell MN21 or Everready A23 type (12V). Many office supply, drug stores, and even RadioShack carry this battery or one of its equivalents."

If you have a wideband handheld, and have an interest in taking advantage of its low frequency capabilities, you'll want to check this one out. It's a great addition to your antenna "arsenal" and a much more portable solution than even a 36-inch wire or telescoping whip.



One of the coolest features of ARC-R2 (and all of Butel's radio control programs) is the ability to take data like this found on Percon's excellent web site (www.perconcorp.com).

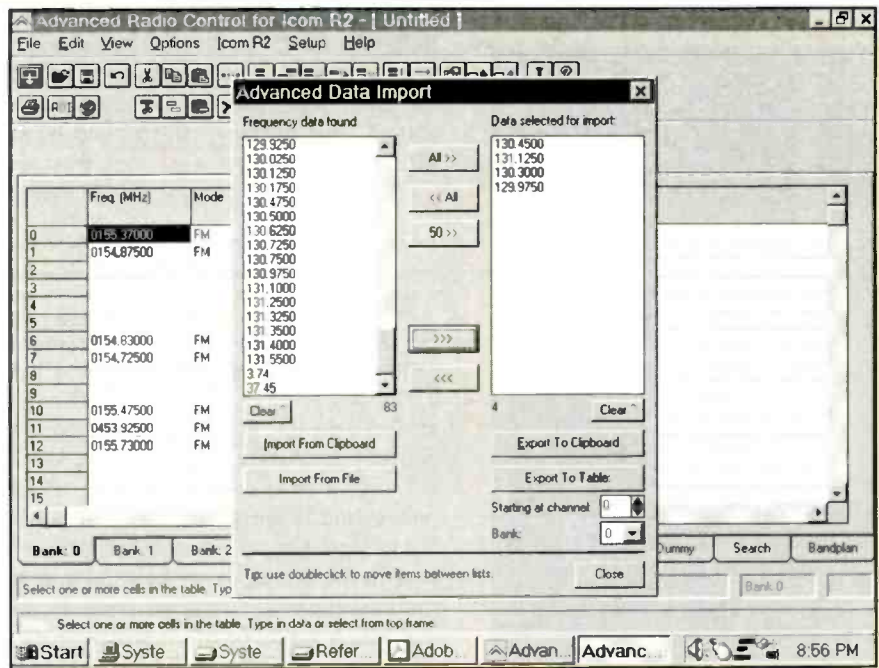
Check it out at Grove Enterprises. The active duck sells for \$49.95.

## Scanner Digest

A scanner club newsletter is one of the best assets you can have in your arsenal of radio related information (besides your subscription to *Popular Communications*, that is!). Unfortunately, many of us don't live near clubs or local clubs don't produce a newsletter. That's a shame, because in time a significant amount of data and history is built up in the archive of club newsletters. Our club newsletter is one of the few things I actually put in three-ring binders for long term storage.

However, if you don't have a local club, or if you'd like to supplement your local club's information with a bit more statewide approach, there's a newsletter you should know about. It's the Scanner Digest published every other month.

The most unique feature of Scanner Digest is its nationwide coverage! There are columns which attempt to cover the entire U.S. There are a few holes in the coverage, and not every state appears every issue, but they're a long way there. Scanner Digest also features special columns on railroad operations, aircraft,



... and extract any frequency data that it finds. You can pick and choose which frequencies you want transferred to your memories!

and equipment reviews as well as many short "features."

If you'd like to check out a sample issue of Scanner Digest before you plunk down

the currently \$22 for an annual subscription, you can! Send \$2 and tell them you saw it in *Pop'Comm*, to "Scanner Digest" P.O. Box 207, Jamison, PA 18929-0207.

# GET ON THE *MT EXPRESS*

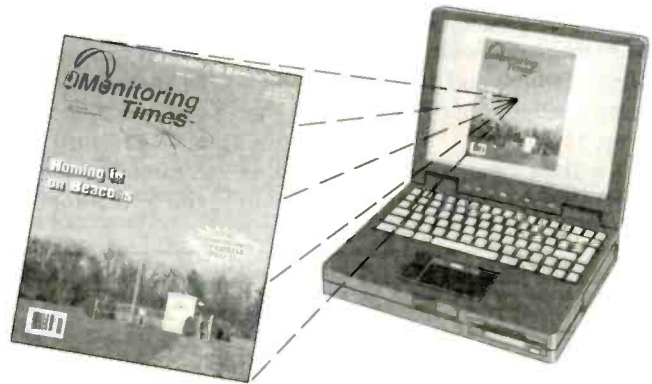
## Monitoring Times is Now On Line!

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To find out if this new subscription is the delivery solution for you, you may download the August 1999 issue for free! Just go to <http://www.grove-ent.com> to find out how.

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*This active but portable antenna is ideal for wideband receivers such as the AOR-AR8200 if you want to listen to HF and VHF low frequencies up to about 60 MHz.*

If you decide to subscribe, make sure you tell them you saw it in *Popular Communications* and your six-issue subscription will turn into seven! How's that for a good deal?

As a final note, *Scanner Digest* is actively looking for writers to help fill in

some of the gaps in coverage. If you'd like to try your hand at this so that someday you too could spend countless hours in interminable rewrites just to keep Harold sort of "just grumpy," this would be an ideal starting place.

### And If You're In NY

Bob Kozlerek writes regarding the NYDXA (New York DX Association), a group that has been active since 1984. Their publication, the *Urban DXer*, is available on-line in PDF (Acrobat) format and the price is right — free! NYDXA covers shortwave as well as scanning, so the publication is fairly broad even if you're not in New York. Several of the articles I read in the sample issue were relating to trunking and programming a trunked scanner, which would be of interest no matter where you live. The newsletter is posted on their webpage, which is located at <http://njscan.4t.com/nydxa.html>.

The group also runs a weekly net on Wednesday nights at 8 p.m. 147.000 (-600 CTCSS 136.5). If you're in the NY area you can listen even if you're not a licensed ham and they will accept questions for the 'net at NYDXA@hotmail.com. Of course if you're licensed you can participate directly in the 'net.

### Frequency Of The Month And Some Reports!

Our Frequency Of The Month idea is still going strong. Our frequency for this month will be **452.450**. Check it out and let me know what you hear. Of course, you'll be entered into our next drawing for a years subscription to your favorite communications magazine (as long as you're reading your favorite magazine

right now!). Make sure your E-mail or entry is clearly marked in the subject or outside the envelope with the frequency you're reporting!

### Weather Is Popular Sport!

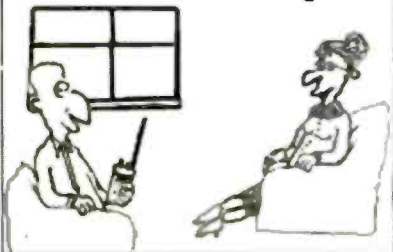
In December of 2000, you may remember our frequency was **162.400**, which many of you recognized as the National Weather Service frequency for NOAA weather broadcasts. Actually it's one of seven used in the U.S., so depending on what's in use near you, there may or may not have been activity on that frequency. Many of you reported that you could hear multiple NOAA transmitters which is great! Remember that these transmit on a 24-hour basis, so if reception conditions are just right, you can hear signals from quite some distance away. 162.400 is supposed to be the most common channel, followed by 162.55 (the frequency in use here in the St. Louis area). But every 25 kHz between those is another possible station, so check them all once in a while: 162.400, 162.425, 162.450, 462.475, 162.500, 162.525, and 162.550. Good listening!

### Your Input Needed!

We're always looking for your questions and suggestions for "ScanTech" topics. I can't answer every letter and E-mail directly, but I do read them all, so please keep writing. Of course, also send in your frequency of the month entries so you have a chance at that free subscription. You can reach me via E-mail at [armadillo1@aol.com](mailto:armadillo1@aol.com) or by way of more traditional methods at Ken Reiss, 9051 Watson Rd, Suite 202, St. Louis, MO 63129. Until next month, good listening! ■

**The Adventures of Scanner Dweeb**  
by M. A. Coletta

It's Saturday night... why don't you go out and do something...



So he takes his mothers advice...



Sing along.....

...and tunes in the wireless microphones... **OUTSIDE** the local Karaoke bar....



[www.ScannerDweeb.com](http://www.ScannerDweeb.com)

70 / POP/COMM / April 2001

Scan Our Web Site



# RADIO & THE INTERNET

Pop'Comm's Cyber Sleuth Checks Out Online Resources

## Radio "Jingles" Behind The Scenes

*Remember, ALL online resources and contacts appearing monthly in Pop'Comm are available at the Quick Links Site, <http://www.dobe.com/ql/>.*

Radio Station "Jingles," like newspapers I suppose, are so common (I can't think of a station that doesn't use them) I'd guess few people give much thought as to how they came to be, why they're so important to stations or what goes on behind the scenes to produce them.

Jonathan Wolfert, president and founder of JAM Productions, states in part of his introduction to PAMS. (Production Advertising Merchandising Service) "For those of us who grew up and got hooked on radio in the '60s, the Top-40 sound of that era made an indelible impression. It was before the age of focus groups and call-out research, before satellite networks, cable TV, and portable CD play-

ers. AM radio was where people turned for music and entertainment, and broadcasters battled fiercely to be perceived as the most exciting spot on the dial. In market after market, the winners were the ones who used PAMS jingles. And the sound of the jingles is forever linked in our memories with the sound of the stations and their DJs."

If my research is correct, this month's "jingle" resources. PAMS and JAM Productions, represent the "who did" and "who does" create the vast majority of those familiar sounds that uniquely identify your favorite station and/or DJ. Both sites offer a unique and immensely interesting glimpse into this fascinating industry. "Jingle Collectors" will find them to be "goldmines". Crank up your RealPlayer™ and visit these two outstanding resources: <http://www.pams.com/pams/> and <http://www.jingles.com/jam/index.html>.

*Note: While visiting JAM Productions, be sure to listen to a 1987 broadcast when*

*JAM president Jon Wolfert was Kevin McCarthy's guest on KLIF in Dallas. You'll hear a really interesting and accurate insight into the world of radio ID jingles. Can you guess how much "jingles" sold for in 1987? Find out. Point your browser to <http://www.jingles.com/jam/collector/dlotd.html>.*

### Utility Radio

Covering just about any topic you can think of, Worldwide Utility News (WUN) is an electronic club for sharing news, information, and loggings about Utility (non-broadcast) transmissions. In addition to the wealth of information available at the site, you can subscribe to the WUN newsletter (listserver) e-mail list. Joining the WUN list is free (at least I didn't see any reference to membership fees) and allows members to exchange loggings and information about Utility transmissions in near real time. A nicely done and up-to-date Utility resource — Check it out at <http://www.wunclub.com/>.



*The "Top Gun" of radio jingles for nearly three decades — a collector's goldmine!*

*The current "Top Gun" of radio jingles — don't miss it!*



BY ERIC FORCE <[eric@dobe.com](mailto:eric@dobe.com)>

## U.S. Amateur Band Chart

Most hams probably have this information committed to memory but for the rest of us, the ARRL (American Radio Relay League, Inc) has produced a really nice "U.S. AMATEUR BANDS" chart that's available in PDF format for clean and crisp color printing. Fitting nicely on an 8-1/2" x 11" sheet, this is one reference you'll use often. Grab yours at <http://www.arrl.org/field/regulations/bands.html>.

*Note: The same frequency information is also available in HTML (text) format at <http://www.arrl.org/field/regulations/allocate.html>.*

## Family And Personal Communications

Last April I stated, when referring to Doug Smith's (KAF9830) GMRS Web Magazine, "I have yet to find a better overall resource for an area of communications (GMRS /FRS) that seems to be taking the nation by storm." It was true then; it's true now. With a bright new look and substantially enhanced content, (now includes Amateur, CB, Cellular, and PCS) "GMRS Web Magazine" is still the place to go for comprehensive, top-notch and current "Family and Personal Communication by Radio" information. On a scale of 1 to 10, this is an 11! I'll use the same words as last year — Don't miss it! Visit <http://www.gmrsweb.com/gmrs.html>.

There's so much quality content at GMRS Web Magazine you might miss one very substantial and beneficial section: The Personal Communication Bulletin Board. It's another nice touch to an already superb site. Check it out at <http://www.dougweb.com/cgi-bin/Ultimate.cgi>.

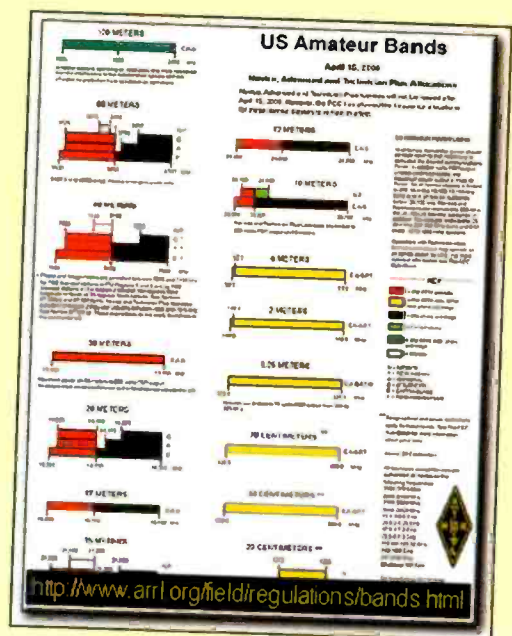
## Homebrew

Mentioned a couple of months ago, "Graph Paper Printer" (GPP) by Philippe Marquis has been upgraded to create custom DIAL indicator faces. And, not only can you easily create a normal (360 degree) dial face (i.e. full circle), you can select the angular range of the dial from 90–360 degrees in 10-degree increments! For example, you might use 180 degrees to create a dial for use with a standard air core variable capacitor. If you're a Homebrewer and need a dial face, GPP is for you! (Even if you're not, GPP is still for you!) I've spent many frustrating hours trying to create dial faces like these in other drawing type programs, with only marginal results. GPP does it darn near instantly and does it extraordinarily well!

As a service to *Pop'Comm* readers, Philippe has permitted me to make his latest version available at my Quick Links site as an "adware" supported program — details explaining the significance of his doing this are at the URL below. You'll also find information on how to upgrade to the registered, (no ads) version as well. By making this "adware" version available to you, Philippe has essentially shot himself in the foot in terms of financial gain. If you've installed a previous version of GPP, be sure to de-install it before installing this upgrade. (Use your Control Panel "Add/Remove Programs" function) As before, don't miss this outstanding program. It's definitely a must have application! Grab your copy at <http://www.dobe.com/ql/gpp/>.

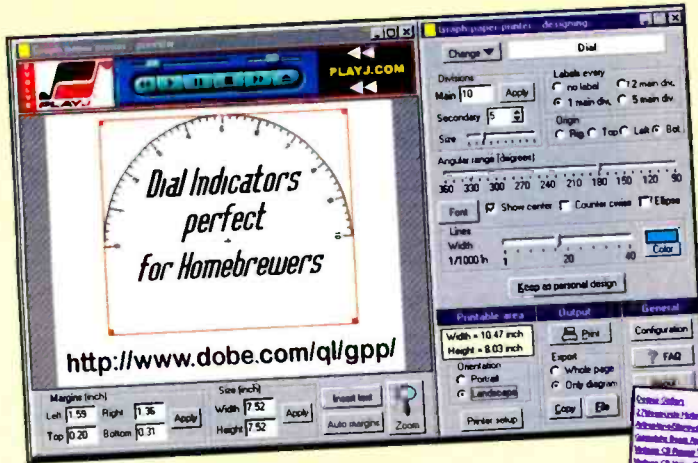
For those who might ask, I have absolutely no financial interest in Graph Paper Printer. But, as a (casual) programmer myself,

Your one stop for worldwide utility radio news on the Web..



Here's a super quick reference for the U.S. amateur band frequency allocations.

Still the best site out there for GMRS and FRS.



Homebrewers, the graph paper printer just keeps getting better and better — see text.

Hands down, the largest collection of vintage CB radio pictures and ads out there!



I do recognize a highly-useful, extremely-versatile and professionally written program when I see one. Once you've tried Graph Paper Printer and explored even a fraction of its capabilities, I know you'll agree and want to "Spread the Word" about Graph Paper Printer to your friends and colleagues.

## CB Radio!

Billed as "Yesterday's Technology Today," the "Retrocom CB museum" is a remarkable collection of pictures, vintage ads, and all kinds of neat stuff related to vintage CB radio. I was quite surprised to find a photo of my first CB — a Globe CB-100. I'd forgotten how much

fun I had with that critter! Covering the years 1933 through 1977, I also found the "27 Megacycle History in the U.S." particularly interesting. If you're from the early days of CB, you'll love the Retrocom CB Museum. Check it out at <http://www.retrocom.com/>.

## Pirate - Offshore - Radio

"Big L time is 3 o'clock and Radio London is shutting down." Those were the final words of Radio London on August 14, 1967. Hear excerpts from "Big L's" final hour plus recordings of other offshore stations broadcasting to the UK from the '30s through the '70s at Paul's Radio Museum. Rounding out a

nice streaming audio library of offshore broadcasts is a small collection of UK & GDR sets built in the '30s, '40s, '50s, and '60s. Links to other sites, recommended books and where to buy service data, valves and other parts in the UK. Visit <http://www.paulplu.demon.co.uk/radio/>.

Well, it's time to head back to the barn so keep those resource tips, comments, and suggestions coming — you never know what path you'll get the old Sleuth headed down. And don't forget to visit the Quick Links site at: <http://www.dobe.com/ql/> for easy access to all the resources noted here and the *PopComm* Website at <http://www.popular-communications.com/>. See you next month. ■



Hear Radio London's final words of August 14, 1967 — and more!

## Coming In May

Next month, we'll have something really special for those interested in Aviation Scanning. Once you've identified that airliner we'll show you how to make that ID "come to life". Many thanks to *PopComm* reader Ralph Vanover for the initial tip. In fact, I was having so much fun with this one that I nearly missed the deadline for submitting this month's column. Stay tuned!



# OUR readers SPEAK OUT...

Each month, we select representative reader letters for our "Pop'Comm P.O." column. We reserve the right to condense lengthy letters for space reasons and to edit to conform to style. All letters submitted must be signed and show a return mailing address or valid E-mail address. Upon request, we will withhold a sender's name if the letter is used in "Pop'Comm P.O." Address letters to: Harold Ort, N2RLL, SSB-596, Editor, *Popular Communications*, 25 Newbridge Road, Hicksville, NY 11801-2909, or send E-mail via the Internet to <popularcom@aol.com>.

## Over Easy, Please — Holes In Each End

Dear Editor:

Our SWL sport is in trouble! Did you know that simple ceramic egg insulators for antennas are now a special order item at RadioShack? You now have to plan ahead if you want to build a dipole or adjust your wire antenna for a favorite frequency.

Our little egg insulators have gone the way of the vacuum tube. I just never thought I would see this in my life!

Rick  
Bradenton, FL

Dear Rick,

*I'll also bet if you don't have the part number (930-0673) you'll get a deer-in-headlights look if you mention "egg insulator" too.*

## Help Wanted

Dear Editor:

I've been a CB operator for 28 years and recently became very interested in ham and shortwave listening when I received a copy of *Popular Communications*. But unfortunately, I cannot afford a good radio. I have tried and bought a few old radios at flea markets, only to get them home and find they don't work. I would like also to get my ham license.

Simply, I'm in need of a radio that is working. I am getting knowledge of electronics, but am asking if there is anyone out there willing to donate an old radio or two and some books or manuals on radio repairs — something to keep me busy and listening to the airwaves. It would be appreciated very much.

Timothy La Rochelle  
280 Wilson Street  
Havre De Grace, MD 21078

## Dream On

Dear Editor:

Regarding scanners in motor vehicles, it has long been my contention that, as long as the vehicle is legal in the state in which it is registered and titled, it should be legal in any state. That goes for such things as window tint, radar detectors scanners, colored lights, and so on.

Seems like the "Full faith & credit" portion of the constitution should cover it, but apparently the legal eagles don't agree.

David Schoepf

## Atomic Time

Dear Editor:

In regards to Hank Teich's letter in the Sept. 2000 issue, Hammacher Schlemmer offers a weather station/ clock and wristwatches that have atomic time features. They can be reached at [www.hammacher.com](http://www.hammacher.com) or at 800-543-3366. I believe we will see more devices with this feature in the future.

Randell Boice,  
Greenwich, NY

## Say It Ain't So

Dear Editor:

I thought you might want to know about a past incident I went through after reading your article on monitoring the police in Indiana.

Some years ago, I was returning home from an errand, and was a few traffic lights away from a bridge over a waterway that I use to go home. My attention was drawn to a Police Emergency Service/Rescue Truck, overtaking me at full emergency status (lights and siren activated). The unit passed me, went over the bridge, did a turnabout, and stopped at the high point of the bridge, with other Police vehicles, mostly Radio Motor Patrol cars.

As an Emergency Medical Technician in a local volunteer ambulance corps, my private vehicle was equipped and used as a first-response "fly-car," as such, it was equipped with a red "Kojak" type dashboard beacon light, and a siren, as well as all of the state Department of Health required medical gear. Where legal, I made a U-turn, came back on the bridge, stopped, and activated my beacon.

The first police officer I saw, I identified myself as an EMT with equipment, asking, "Could I be of any assistance?"

The officer declined my offer. I returned to my car, turned off the beacon, and pulled into traffic. Again, where legal, I did a turnaround, and went onto the bridge for the third time, heading home.

As I came off the bridge, I saw one of the RMPs following me, pacing me. I checked the speedometer, and I was three or four miles under posted speed. Then, the car's lightbar lit up. I pulled over.

I received two tickets, one, for "unauthorized Red Light," the other, for having a scanner radio on the seat next to me.

I admit I didn't have the "Red Light Authorization" with me at the time I was ticketed, but to get a ticket for having the turned off scanner on the seat, when I had just offered help to the officers? They said I was in violation of a state law for "Equipping

motor vehicles with radio receiving sets capable of receiving signals on the frequencies allocated for police use."

If having a scanner laying on the car seat, powered up or not, is a crime, what about the poor delivery trucker, driving a shipment that includes scanners, to the local radio store? Or, what about your taxi driver, when you are carrying your scanner to the airport to listen to flight ops before boarding? Or, what about simply driving home from the store after purchasing a scanner?

Via your magazine, I know most, if not all states have laws prohibiting using a "Police Monitor" to commit a crime. However, living in the real world, I am aware that "Monitoring Crimes" (not intended as a slap against your competitor's magazine) won't be found out, unless the perpetrator was stopped for another reason.

When I went to court, I had the "Red Light Authorization" paperwork with me. The judge ruled in my favor on the Kojak Light, then claimed the scanner ticket as an "improper instrument," as it was "illegible," and tossed it out.

Before buying a scanner, as has often been suggested in these pages, check out your local laws regarding when and how you can use it. I was lucky, you might not be.

Richard C. Berger,  
Emergency Medical Technician,  
Registered Monitor /S. W. L.  
Station KNY2SC

## An Age-Old Question

**Dear Editor:**

First of all, I would like to say that I read your magazines almost every month. I am not a licensed amateur radio operator (yet), although I plan to become one in the future. Your magazines are really insightful and enjoyable to read. I especially like to learn more about how to make my hobbies (CB, scanning, and Amateur Radio) work better.

Now for my question. When the FCC took the 11-meter band away from the Amateur Radio operators and made it into the Citizens Band, why didn't the ARRL just incorporate the new band into its fold instead of turning against it?

First thing, the Citizens Band is out of control (which is one of the arguments brought forth by amateur radio operators). But if the ARRL had stepped in and took it under their wing, then they could have helped to keep it in line (they still could). There are some people out there who would like to see the CB cleaned up. But we can't do it ourselves. With the backing of the ARRL and the amateur radio operators, we could accomplish this task.

Secondly, I am willing to bet that a majority of the amateur radio operators either own a CB or got their start using one. I for one have used a CB for the last 10 years and will continue to use one for a lot longer. I have started to venture into SSB, which I believe is a version of ham radio.

Sometime in the future, I would like to get my Technician or Novice license. I have read a lot of letters in Popular Communications from ham operators who also have a CB in their shacks or in their vehicles with them.

Third, with the possibility of the 155-mile rule being eliminated, then the Citizens Band is actually a good place for DXing (or shooting skip). CBers could make and send out QSL cards like the amateur operators do. And the best way for people to get into DXing is to see a person doing it. The hams could teach the CB'ers a thing or two about shooting skip. It just might attract

more people into the amateur bands also (legally, that is). After all, CB is a starting point for amateur operators.

Finally, it seems pointless to me that the amateur radio operators are using the Citizens Band as an example of what will happen if they don't utilize their bands more. Instead of saying that the band was "ripped" away from them, they should consider the possibility of it being a new form of communication for them. This would be the perfect example of QRP (Low Power), since the maximum legal power is 4 watts (12 watts PEP). You could use the experimentation found in amateur radio to find out how to get the most out of a legal radio.

73's

Patrick Dickey  
"Counselor" SSB-132Y

**Dear Patrick:**

*Thanks for your comments. I really don't know what's inside the cranky mind that still carps about losing those frequencies to CB. Let's see, that was the late '50s. If a ham was 35 at the time, he's now 78 or so, and frankly if he or she hasn't involved at least one or two "youngsters" in the radio hobby, in another 25 or so years no one will remember the event. The hobby will probably be better off having forgotten the dastardly FCC deed, as hopefully we'll be that much more mature and willing to get on with it than dwelling on the past, which is nothing short of counter-productive.*

*Beyond that, you've made some interesting observations, which I'll ask our readers to address in this forum.*

## Time Will Tell

**Dear Editor:**

Regarding your editorial "Inside The Mover's And Shaker's Minds" and Mr. Dixon's article "RM-9807 — We All Lose" just what makes you think the government even CARES what John Q. Public thinks? We can moan all we want but all the letters we send will most likely wind up in the shredders of our respective congressmen/women because all they care about is their tenure!

Sure, we vote them into office on a bunch of empty promises, and then they lock themselves in their ivory towers! It has been my observation that unless the people rise up in armed revolt, NOTHING will get done!

R.K. Allen, President  
Tri-County Second Amendment Militia  
New York

**Dear R.K.,**

*It's really pretty simple. Most of these so-called representatives on Capitol Hill are very, very slow learners. Many don't know how to spell Washington, and most clearly have forgotten who put them there in the first place. Comedians and talk-show personalities have let politicians provide their material for years. What gets me is the cocky holier-than-thou persona many reps take on shortly after being elected. A moment ago, I was thinking about saying that perhaps an attitude-adjustment seminar for some of them would be appropriate, but decided against it.*

# readers' market

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**WANTED:** Magazines: "Short Wave Listener." From the 1930s. How many. Condition. Price the lot. Bob Ryan, 1000 So. Gilbert Street, Apt. 67, Hemet, CA 92543-7315.

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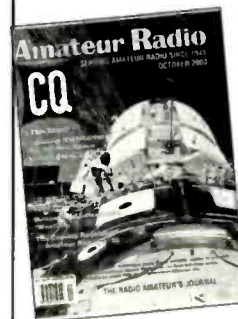
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# WASHINGTON BEAT

FCC Actions Affecting Communications

## FCC Looks At More Spectrum For 3G

I'm really beginning to hate all this 3G stuff. Ever since the President handed down his declaration that the U.S. is woefully behind in allocating spectrum for so-called "Third Generation" wireless services, the FCC has been hunting high and low for available frequency bands. And since there really aren't too many around, that means reallocation of existing bands. This strikes fear into the hearts of spectrum users everywhere. Whose precious spectrum is the next to fall under scrutiny?

Earlier this year the FCC announced a Notice of Proposed Rulemaking (00-455) designed to explore the use of frequency bands below 3 GHz to support advanced wireless services (voice, data, and broadband). Specifically, the Commission will be looking at introducing new advanced mobile and fixed services in frequency bands currently used for cellular, PCS (Personal Communications Service), and SMR (Specialized Mobile Radio) services, as well as these bands: 1710-1755 MHz, 1755-1850 MHz, 2110-2150 MHz, 2160-2165 MHz and 2500-2690 MHz.

The 1710-1755 MHz band has already been designated for reallocation from Federal Government to non-Federal Government use under the 1993 Omnibus Budget Reconciliation Act and the 1997 Balanced Budget Act. The 2110-2150 and 2160-2165 MHz bands were identified for reallocation under the Commission's 1992 Emerging Technologies proceeding. The FCC has also adopted an Order denying a petition filed by the Satellite Industry Association requesting reallocation of the 2500-2520 and 2670-2690 MHz bands to the Mobile Satellite Service (ET Docket No.00-258).

### New Fixed Satellite Service Band

The FCC has adopted a First Report and Order (ET Docket No.98-206) permitting non-geostationary satellite orbit (NGSO) fixed satellite service (FSS) providers to operate in various segments of the Ku-Band. NGSO FSS can provide high-speed Internet access, data, video, and telephone services, especially to residents of rural areas. The First R&O permits "NGSO FSS gateway earth stations to provide, on a primary basis, downlink (space to Earth) operations in the 10.7-11.7 GHz band and uplink (Earth to space) operations in the 12.75-13.15 GHz, 13.2125-13.25 GHz, and 13.75-14.0 GHz bands. . . and permits gateway Earth stations to operate in the 11.7-12.7 GHz downlink and 14.0-14.5 GHz uplink bands that will be predominantly used by NGSO FSS service links." The Order also allows "service downlinks in the 11.7-12.2 GHz band on a primary basis, and allocates the 12.2-12.7 GHz band for service downlinks on a primary basis. . . and permits service uplinks in the 14.0-14.5 GHz band."

### Software Defined Radios

The FCC has issued a Notice of Proposed Rulemaking (ET

Docket 00-47) proposing a new equipment class for software defined radios (SDRs). In its suggested definition, the FCC said an SDR "is a radio that includes a transmitter in which the operating parameters of the transmitter, including the frequency range, modulation type or maximum radiated or conducted output power can be altered by making a change in software without making any hardware changes." The FCC believes that the ability of SDRs "could have far reaching implications for the way the Commission allocates and licenses spectrum and authorizes radio equipment. Currently, this technology is only available in base stations, but the Commission believes widespread handset use will occur within five years.

### 406 MHz EPIRB Waiver

The Commission has granted a request by McMurdo Limited for waiver of Section 80.1061 of the FCC Rules to permit use of frequency 406.028 MHz for a new 406 MHz Emergency Position Indicating Radio Beacon. At this time, EPIRB's transmit on 406.025 MHz for search and rescue purposes, however, this frequency will change to 406.028 MHz after January 1, 2002. All manufacturers presenting new models of EPIRB after this date must use the new frequency to limit saturation of 406.025 MHz. McMurdo requested and received permission to submit their 406.028 MHz model for certification in the U.S. before the official rule change. For more information on the frequency migration, check out the FCC's WT Docket No.00-48.

### Ham Exam Fee Limits Eliminated

The Federal Communications Commission has announced the suspension of enforcement of 47 CFR Section 97.527(b), the rule which implemented a statutory limit on amateur operator examination fees. Section 4 of the Communications Act of 1934, 47 USC Sec.154(f) stated in the past that individuals and organizations that "provide or coordinate the preparation, processing, or administration of examinations for amateur station operator licenses" could be reimbursed for such services in an amount not to exceed \$4, adjusted every January for changes in the Consumer Price Index. On February 8, 1996, the line in the Section 4 of the Act dealing with the limits on allowable cost reimbursement was stricken. In response, ARRL VEC volunteer examiners, who charged applicants \$6.65 through the end of 2000, have revised their fee to \$10 as of January 1, 2001.

### NTIA Opens 3G List Discussion

The National Telecommunications and Information Administration (NTIA) has created an open electronic-mail dis-

BY LAURA QUARANTIELLO



cussion forum on issues pertaining to the identification of radio spectrum for third generation wireless systems in the United States. Participation is open to all members of the public interested in discussing the issues. To subscribe send an electronic mail message to [3g-list-request@lists.ntia.doc.gov](mailto:3g-list-request@lists.ntia.doc.gov), leave the subject line blank and put the following command in the body of the message: "join 3g" (without quotation marks). The President's Executive Memorandum, the Secretary's statement, the 3G plan, the interim reports, and other information are available on NTIA's Website at <http://www.ntia.doc.gov/ntiahome/threeg/index.html>.

### Ham Loses Privileges

Another entry in the "Shame on You" file: Danny Kenwood, a San Francisco amateur radio operator, had his General license modified for two years to prohibit all amateur operation but HF Morse code. Back in October of 1999, Kenwood lost his VHF and UHF privileges after allegations that he used profanity and obscenity, failed to properly identify himself, and engaged in deliberate interference. The interference to the K7IJ Grizzly Peak repeater caused it to be shut down. Kenwood is said to have voluntarily agreed to the HF Morse-only modification to his license, which extends to operation of any other amateur station as well as his own. Failure to comply will result in revocation proceedings against his station license and suspension of his operator's license, according to the FCC. ■

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# THE PIRATE'S DEN

Focus On Free Radio Broadcasting

## Electromagnetic Madness In Your Ears!

Here's what folks have been hearing, pirate-wise, of late. Have YOU sent in your loggings?

**WHYP, 6950** at 0007 with weather read by someone with a speech impediment, mentioned that they were somewhere in eastern Pennsylvania. QSL addresses given were WHY01530@Yahoo.com, WHYP1530@starmail.com, WHYP@partlycloudy.com. The yahoo.com address does not work. (Craig M. Pradarelli, state not given) **6960 USB** (approximate) at 2130 with a relay of "So You Want to Be a Pirate Broadcaster" quiz show, including famous pirate personalities such as "Bob" of Radio Bob and many others. (Johnny "Boxcar" Bernays, AR) **6955V USB** at 0326 with Regis Brownyard hosting "Who Wants to be a Pirate Operator?" The prize was \$69.55. (William T. Hassig, IL)

**Ground Zero Radio, 6955 USB** at 0315 with a discussion of mixed drinks and pick-up lines, including a long presentation on blue tequila. Various parodies, fake CD offer, as well as various other songs and skits, and a request for extra Prozac, valium, and other mood-adjustment drugs. The QSL address was given as Ground Zero Radio, P.O. Box 109, Blue Ridge Summit, PA 17214. Sign-off by Dave Gunn at 0335. (Rick Desmarais, NH)

**Radio Neptune, 6950 USB** from 0333 with program of rock music and man announcer. ID as "Radio Neptune Universal Service." Off at 0418. (George Zeller, OH) (*Welcome back, George!*)

**WFMQ — 6995 USB** from 2349 with typical program of classic rock, with frequent IDs by chanting men and their profane commercial for QSLs. Most of those mentioned other stations that fail to QSL, unlike WFMQ that does. Providence, RI, address. (Zeller, OH)

**KIPM, 6950 USB** from 0017 to 0107 close. Also **6955 USB** from 0402 to 0456 close. The first program was an elaborate production by Alan Maxwell of a lengthy and complex anti-war drama; a repeat of an earlier broadcast. The slogan is "Illumati Prima Materia," which accounts

for the call letters. Gave P.O. Box 69, Elkhorn, NE 68022 as QSL address. The second program was a drama about a man trying to find his dream girl, which evolved into a complex sketch. (Zeller, OH) **6945 USB** at 0017 with features including "Ramblings From the Heart of Darkness," "Electromagnetic Madness," "Strange Cargo." The next evening (0304) they were back with another multi-hour show. They change frequencies often — **6950, 6945, 6953, 6956.5**. (Harry Ricker, MD) **6955** at 0315 with Alan Maxwell's usual stuff. (Jack Linonis, PA)

**Indira Calling — 6950 USB** from 0109 sign-on to 0133 close. A mix of east Indian music and Beach Boys, announced as a special program for George Zeller. Gave the Providence, RI, address repeatedly, but with "Calcutta" substituted for Providence. (Zeller, OH) 0016, with Beach Boys and "Calcutta" address. (Ricker, MD)

**WFFU, 6950** at 2339, playing Genesis. Off at 2350. (Ricker, MD)

**Radio Free Speech**, heard on **6950** with announcer Bill O'Rights signing off at 1325.

**Radio Three, 6950**, signing on after Radio Free Speech left. Announcer Sal Ammoniac playing heavy-metal rock and roll. Later on he give the ID as Radio Free Speech, so these two are basically the same station. (Ricker, MD)

**Unidentified, 6955 USB** at 0015 using the WLS promo and playing classic rock. (Ricker, MD)

**Psyco Radio, 6953 USB** briefly at 0304 with rock. Faded by 0312. (Ricker, MD) **6955** at 0300 with various rock tunes. (Linonis, PA)

**KMUD, 6950** at 0200 with Beatles, Kim Carnes, and Irish music. Station ID in CW and voice, then went off abruptly at 0233. Also heard the next evening from 0100 on 6950 with reggae, rock and other music. (Robert Gregory, AZ) (*Welcome Robert!*)

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**6950** at 0200 with song parodies and talk about marijuana. (Linonis, PA)

**Radio Azteca, 6950.37 USB** at 0315 with News of the Weird and pop music. (Hassig, IL)

**Z-100 relay, 6955 USB** at 0239 with oldies tunes including "Incense and Peppermints" and "Happy Together." ID as "We break the rules — Z-100." E-mail address: Bigz100FM@yahoo.com. The signal was overmodulated. (Hassig, IL)

**Unidentified — 6957** at 2334 playing "Abracadabra" and abrupt sign-off with no ID given. (Pradarelli)

Robert Gregory asks about including local FM pirates in your logs. Fine with me, but since most of these are very limited range, such logs have to yield to short-wave pirates when space isn't available.

That's it for this time. Your mission? Keep 'em coming! ■

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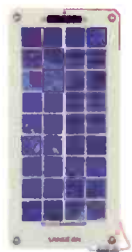
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