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Departments

On The Cover

When Montana District II State Police Commander, Bob Hammel, or your local trooper grabs the mike, your monitoring post needs to be in top shape! Read this month's Overheard column by Ken Reiss to learn how yours can be top-notch and ready in an emergency. (Photo by Larry Mulvehill).

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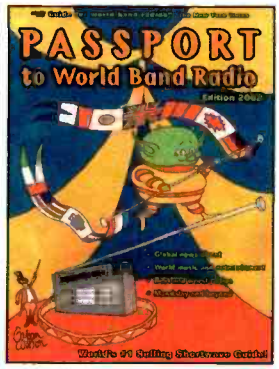

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tuning in

by Harold Ort, N2RLL, SSB-596

an editorial

Garfield And Moon Come To Radio

Playing by the rules and staying within the lines isn't a challenge for everyone, but then again the more I keep hearing about renegade CBers from many hams, the more I listen to my fellow licensed amateurs — on the air. It sort of reminds me of the Clinton years; how many Lily White folks were seemingly always out to get him. When they finally did, it wasn't long before we learned that many of the same DC elite *also* had skeletons (or women) in their closets, too. So much for integrity, honesty, and finger pointing. Anyway, when it comes to lessons, many hams would like to be the teacher, especially when it comes to how other operators in other services — licensed and otherwise — should behave.

Seems the older I get the more confused I become. I remember learning the Phonetic Alphabet in school. It's a lot easier than Morse Code, and if properly used, is certainly an obvious timesaver and helps everyone understand everyone else. Today, it's known as ITU Recommended Phonetics. It's really very easy.

The FCC doesn't require hams to use the standard phonetics, but recommends its use as an aid to station identification and helping others understand what we're spelling over the air, including call letters. Now, any good doctor will tell you that the ears are the first thing to go, but I can tell you from personal experience my wife's ears are fine. Problem is what I'm *hearing*. The strangeness I'm experiencing isn't really new, but since I'm hearing all kinds of newfangled pronunciation for common, old words-February with that "r" in the middle isn't pronounced Feb-you-airy, and Jaguar (like the powerful cat and expensive car) isn't Jag-you-are, either — I thought perhaps I was being kept out of the hip loop. Now, trust me, I'm far from perfect, but then again I'm not a network broadcaster. I'm just trying to pronounce things like I learned in first grade — and remember where I put the morning paper.

So, I suppose what I'm hearing today on the bands is also just part of an accepted trend in doing our own thing. You're supposed to comprehend the speak, so to speak. The other day on 20 meters, I heard a fellow, K6 --, repeating his call over and over to a DX station in Europe. Each time the other op — in his broken English — would miss the call. Finally another operator chimed in saying, "S, Sierra." By now the Italian ham was totally confused. Meanwhile the original U.S. op continued using "S, Sugar" to identify part of his call. The poor, confused Italian ham just went away leaving the two U.S. ops to have a conversation and good laugh. So much for using the correct phonetics.

At first I thought this was perhaps an isolated incident — a simple case of some ham sitting there with the window open catching a good California ocean breeze, but once again I was mistaken. So, over the past few weeks I've compiled a completely revised set of phonetics that I'd like to share with you, because if you're a CBer, freebander, GMRS operator, or even FRS radio user, you'll quickly find that doing things the *right* way has its rewards. Or, you too can sound like a doofus, like the fellow in Texas (no, not George Bush with a ham radio!) spelling his hometown which included the letter "G" for Garfield. That's right, Garfield, as in the cat.

No, I don't hear many ITU phonetics on 11 meters or the so-called "freeband," but then again I don't expect to, either.

Last night I saw the latest animal humankind has cloned — a cute little cat they've named "Copy Cat." I just hope they stick with cloning cats, sheep, and little farm animals. ■

Actual Phonetics YOU Can Hear

(If you recognize a *legit* one below, all it means is I personally haven't heard a "new" word for that letter, but if YOU have, please let me know!)

A — Apple	N — November
B — Bozo	O — Ontario
C — Candy	P — Paul
D — Dog	Q — Quebec
E — Extra	R — Razor
F — Frank	S — Sierra
G — Garfield	T — Television
H — Hotel	U — Uncle
I — Irish	V — Vanilla
J — Japan	W — Wally
K — Kilometer	X — X-Ray
L — Larry	Y — Yellow
M — Moon	Z — Zebra

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Disappointed In Alaska

Dear Editor:

I am a little disappointed in an article printed in your October issue about Coast Guard Loran Station Tok Alaska. The Coast Guard and Loran-C Station Tok are always looking for good, positive publicity and we welcome your article. However, I do not believe the article conveyed the importance or, quite simply, the operation of what is performed here. I do not believe that the choice of pictures aided anyone in understanding our operation either. The article also seemed to be placed amongst other information not pertaining to the article. It was difficult to understand, and hard to follow where our article and associated pictures were amongst the other info.

Loran has been a vital part of aviation and marine navigation for almost 60 years. The U.S. Coast Guard operates 28 of these stations at very high standards. The tolerance for timing is 100 nano seconds, and all Loran Stations are mandated to be "on-air" transmitting at least 99.98% of the time, 24/7. Considering all Loran stations are using 30-40 year-old equipment, some still using electron tubes, and most with only a four-man crew, this is a pretty substantial feat.

Loran has always been in the background of exciting and eye-catching operations, but that does not diminish the importance to millions of users over the last 60 years. Until the late '80s, and the advent of GPS, Loran was the primary means of navigation. Loran is still used by many users, not just for marine and aviation navigation, but also by radio, television, telephone, and colleges for timing references.

These are my opinions, and not those of the Command or the U.S. Coast Guard.

Thank you,
Tom Sears, ET2
Operations Boss
Loran-C Station Tok AK

Dear Tom:

Thank you for your letter and comments. I should point out that in my 20 years as an Army Public Affairs NCO, responsible for, essentially public relations at DA level, there were a few times General Hairypalms or Colonel Twofeet weren't "pleased" with the coverage we'd acquire for them in national publications from the New York Times *to, yes,* Pop'Comm. *In the PR business of telling the Coast Guard (or Army, or whatever company) story to the public, along with these published "hits" for some terminally close-minded officers, it's not uncommon for PR practitioners to have to play a "Colonel, you're lucky you got* that *much coverage" recorded speech — they'd then usually consider themselves fortunate for the ink.*

No doubt about it, as you've observed, the Coast Guard Loran system is a vital part of the overall Coast Guard mission, and judging by the six excellent photos of the Loran equipment and Bill Hoefer's article, coverage-wise, you did pretty well. In this instance, if the USCG was a civilian corporation and got that much ink in a national publication, it'd be considered a very good day. Given the fact that I decided to use all of the photos Bill submitted, the actual layout of the photos couldn't be helped. Certainly I could have used one small photo and put all the Loran material on one page, and continued on the following pages with Bill's standing section of aircraft frequencies, but we thought otherwise. When you think about it for a moment, I'm sure you'll agree. Of course these are my opinions and not those of General Nitpicky.

Best wishes to you and the entire USCG contingent at Loran-C Station Tok, Alaska. Keep up the good work!

Letter To The BBC

Note: The following letter from Pop'Comm reader J. Nigel Smitheram to the BBC is reprinted with his permission.

To: MARK BYFORD, DIRECTOR
BBC World Service
Sir:

I was quite dismayed when I heard on the BBC World Service of your plans to suspend shortwave service to North America beginning July 1st.

The announcer stated that this was due to attempts to improve and expand service to other parts of the world.

Apparently, the management of the BBC does not feel that North America is an important enough region to continue to be served, as it has been for many decades, by the World Service.

You fail to realize that there are VAST areas of Canada, the U.S. and Mexico where, because of geographical location and/or available resources, are not served by alternative means.

I happen to reside in the Yucatan Peninsula of Mexico. Through a process of trial and error, I have been able to access your transmissions to the Caribbean. However, when I've traveled to other parts of this extensive country, the Caribbean frequencies are often inadequate.

I've traveled to many parts of the world and, along with photographic gear, have always packed a World Band radio to keep up with world events. When I return home, I again tune in to supplement other sources of information.

You will do a tremendous disservice to listeners in North America by suspending shortwave transmission to this highly populous and important part of the world.

In the process, you will have defeated one of the principal reasons for the establishment of the Overseas Service of the

BBC more than 50 years ago: to bring to the world a timely, factual and accessible presentation of world events.

North America is, and will continue to be, an area of the world important enough to service and receptive to the type of programming the BBC World Service has traditionally provided to its shortwave audience!

Yours truly,
Nigel Smitheram, MD
Merida, Yucatan 97000, Mexico

Electronic QSLs

Dear Editor:

I am a fan of *Pop'Comm* magazine for years now! I don't know if you are aware of, or have published information on eQSL.cc yet. This is a FREE phenomenal website where hams *and* SWLs can easily and electronically create, send, receive, print out, and archive QSL cards! The site is totally free, and as a ham operator I have already received (and sent back) 'reception report' QSLs from many shortwave enthusiasts globally.

If you have not already, you would be doing a GREAT SERVICE to SWL's, and the hobby of shortwave listening in general, if you published a piece on electronic QSLing for your SWL's.

Thanks for listening, and keep up the great work!

George W8KQE

Bureaucratic Stupidity

Dear Editor:

First I'd really like to say that I really like *Popular Communications*, and I especially support your magazine's stance regarding CB communications. I think the FCC's stance is totally idiotic. They talk about the nature of the service being changed — well, little do they know or understand that the services nature has been changed for years. Plus I think the FCC's view of CBers is also inappropriate and misinformed. Please continue the good work.

Mark AE597

FRS Shut Down

Dear Editor:

The Family Radio Service has been a blessing to our family when used while shopping, camping, fishing and hiking. Its low cost enabled each family member to have one. Due to serious health issues we also felt more comfortable being in touch with one another. Our local Wal-Mart store (in Littleton, NH, from where we purchased our units) apparently has found the low cost and convenience of FRS as attractive in conducting their business. Many of their employees now carry these small units in place of the business band radios. I didn't think much about this until my wife was approached by a plain clothed Wal-Mart employee demanding her to shut it off as it interfered with Wal-Mart's system stating that management has made it a policy that all customers using these tiny radios had to cease operating. I feel this points to a need of a service designed for personal use only and let businesses have their own set of frequencies thereby eliminating any conflict, giving both parties the freedom to operate without the need of kicking someone off.

Glen Parker
Lincoln, NH

Dear Glen,

I agree, but the bottom line is that FRS, by its very nature is a Family Radio Service, not meant to be used by businesses in place of the business band radios they should be using. Hello, Wal-Mart?

She's Clueless

Dear Editor:

I read with great interest and dismay the editorial "Half Baked Ham" in your March issue. When common sense and logic falls on deaf ears, in this case the FCC's Kathleen O'Brien Ham, Deputy Chief, Wireless Telecommunications Bureau, then maybe it's time to go at it on our own. The Dixon-Leef petition sought to establish Channel 1 in the Family Radio Service as the emergency calling channel that would be recognized nationwide. As CB has Channel 9 for that designation, FRS would have Channel 1.

Ms. Ham's decision for rejection of the petition obviously showed that she did not understand it. Since this will not be sanctioned by the FCC, why not "educate" the general public to that fact that it is strongly suggested that Channel 1 be used without CTCSS codes when reporting an emergency using FRS radios? CB Channel 19 is known far and wide as the "road channel" when traveling. People use and monitor it to check on traffic and weather conditions. I do not recall the FCC designating Channel 19 for this purpose. However, because users, mainly truckers "picked" this channel for that purpose it became widely used by many when traveling. Through various radio publications you could encourage the use of FRS 1 for emergency calling, although it would still be used for non-emergency communication. The word could be spread through the ARRL and REACT. By doing this, the chance of an emergency message being heard would be greatly increased as that channel would tend to be monitored by more users and scanner monitors. 73,

Ben Farda, Jr. KC2CQK

Monitoring CB Channel 9

Dear Editor:

I'm writing in response to a letter by Mira Loma of California. She wrote that she doesn't know "why the myth persists that REACT teams need to be monitoring CB Channel 9 all over the continent. If I were to solely monitor CB 9 here in southern California, I would be doing the public-at-large absolutely no good whatever."

She goes on to say that the motoring public is using roadside call boxes, cell phones, and amateur radio in lieu of CB 9. Also, she said, "for all REACT teams to use only one mode of radio communication is foolish, unless they have performed their homework and have discovered that it is, indeed the best manner in which to operate." According to her, for the most populous state, CB 9 is not the answer.

She makes the statement that she monitored CB 9 for "days on end without a call." I can remember that happening to me in the Harrisburg area after several hours of monitoring Channel 9. For several days my logs only showed my log in and log off the air, but no calls. You have to take into consideration the time of day, weather conditions, location of your station, the radio,

(Continued on page 78)

Monitoring Crop Dusters—After Sept. 11

In Our Changed World, You Can Still Hear Them At Work

by Keith Stein

Turbine Beechcraft BE-18T crop duster aircraft based at Bridgewater Airpark, Bridgewater, Virginia.

Crop dusters are ready for takeoff around Washington D.C. to battle this year's gypsy moth population after being grounded briefly last year as investigators checked the threat of these aircraft being used to spray chemical weapons over major cities.

"The National Agricultural Aviation Association reminds its members "to maintain, and where necessary, improve crop duster aircraft and operations security."

The National Agricultural Aviation Association reminds its members "to maintain, and where necessary, improve crop duster aircraft and operations security," after the Federal Bureau of Investigations (FBI) revealed last year that one of the terrorist involved in the Sept. 11 attacked investigated the operation of crop dusters and had operator manuals in his possession.

In May, a Department of Agriculture (DoA) Forest Service contractor will begin helicopter aerial application services around Virginia and West Virginia to fight the annual gypsy moth population. The three-person helicopter will aerially apply insecticides on the George Washington and Jefferson National Forests, and along the Blue Ridge Parkway in Virginia and West Virginia.

***"Government and on-site law enforcement officers will provide and insure the security of the aircraft, support equipment, and spray materials, according to documents obtained by* Pop'Comm."**

A total of 8,903 acres are to be sprayed with Bacillus thuringiensis var kurstaki (Btk), Dimilin, and Gypchek insecticides, according to documents obtained from DoA.

Treatment Areas — And Frequencies!

Treatment areas include; Fore Mountain, Wildcat Mountain, Chestnut Mountain, Lake Moomaw — Bolar Mountain, Elizabeth Furnace Recreation Area, Storybook Trail Recreation Area, Massanutten Visitor's Center, and Trout Pond Recreation Area. These areas are located in Alleghany, Bath, Bedford, Botetourt, Page, and Shenandoah Counties in Virginia and Hardy Counties in West Virginia.

Government and on-site law enforcement officers will provide and insure the security of the aircraft, support equipment, and spray materials, according to documents obtained by *Pop'Comm*. The contractor will be responsible for proper storage and transport of the insecticides to the project area. During flight operations, one major requirement is clear, unrestricted communications between the helicopter and government personnel at the airport, helispot, and treatment areas.

"Flights will be limited to a maximum of eight hours daily, 42-hours per week."

Proposed frequencies to be used are **122.925 MHz, 168.350 MHz and 168.625 MHz**. If at any time there are communications problems, the project will have to cease all operations until the problem can be fixed. Flights will be limited to a maximum of eight hours daily, 42-hours per week. Flight time shall not exceed a total of 8-hours per day. Flight time shall not exceed a total of 42-hours in any six consecutive days. ■

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News While It WAS News

Broadcast Journalism In Radio's Early Years

by Donna L. Halper

When I mention that I am doing research on the history of radio news, most people assume I am researching the '30s and '40s. A common misconception is that radio in the 1920s was a music and sporting events medium only. Few textbooks even mention radio news until the mid-1930s, so I can understand why people might think broadcast journalism began around the time of World War II. But news via the "radiophone" actually goes back to broadcasting's earliest days, and how much news certain stations were able to offer may surprise you.

Station 8MK Test Broadcasts

It was perfectly understandable that the test broadcasts at the newly built Detroit News station 8MK (later known as WWJ) on Monday night August 30, 1920 featured phonograph records by such classical greats as Enrico Caruso and Amelita Galli-Curci. Many of the early station owners believed radio should be used only for "good music" and educational material; they saw it as their duty to improve the tastes of the mass audience, and to that end, their stations would program a steady diet of opera singers and classical concerts (eventually, adding an occasional sporting event and, of course, sermons on Sunday). Playing some of the finest vocalists even during the week of testing let 8MK's listeners know right away that this would be a high-class station. And the response was immediate: those who received the test broadcasts contacted the newspaper, expressing amazement at the music coming from their radio receivers. But 8MK was about to broadcast something entirely different and unique—election coverage. On page 1 of the *Detroit News* for August 30, 1920, the headline announced "The News Radiophone To Give Vote Results." The article went on to say that all county, state, and congressional winners would be announced the moment the information was received. So, even though KDKA's coverage of presidential election returns in early November is much better known, more than three months earlier, 8MK had aired the news of who won and who lost in the Michigan elections; and it was not the only time the station would report on local events. Today, we take such coverage for granted, but in 1920, radio was doing what had never been possible before — bringing the audience the story as the event unfolded. The *Detroit News*, the first newspaper to own a radio station, did not see radio as competition; rather, publisher William Scripps saw it as a medium that could enhance what his newspaper had to offer. This showed remarkable foresight: most newspapers of the early '20s were threatened by radio, and many seldom mentioned it until they absolutely had to. Perhaps the editors hoped that if they ignored it, radio would go away. In fact, as radio increased in its popularity, some editors actively tried to prevent radio from broadcasting the news. Thus, Mr. Scripps' immediate acceptance of radio was quite unusual.

We may never truly know which station did news first; while the battle for recognition between KDKA and 8MK/WWJ is well known, there were also other stations, operated by amateurs, doing some of the things we associate with the commercial stations — these ham stations often broadcast news and music for their friends, and kept on doing so until early February 1922, when the Department of Commerce finally forbade them from doing so. There is considerable evidence, for example, that inventor and engineer Lee DeForest, who operated amateur station 2XG in High Bridge, NY, broadcast news reports in 1916: while DeForest had a clear preference for opera and classical music, he also knew how to get publicity, and broadcasting an important news event was definitely one way to make people notice his station. So in November, he arranged to broadcast election returns (he received them from the newsroom at the *New York American*). Not only was the broadcast a success — it may have been heard by as many as 7,000 amateurs — but it also attracted favorable attention for his company, the De Forest Radio, Telephone & Telegraph Co. in New York City. (Unfortunately, DeForest ended his broadcast before Woodrow Wilson came from behind to win, so the people who did receive his broadcast heard the wrong candidate declared the winner...)

A rare photo of WEEI's meteorologist, E.B. Rideout, who was perhaps the first staff weather forecaster in New England, joining WEEI in the mid-1920s.

Amateurs And Morse Code

The amateurs, with their knowledge of Morse code and their ability to understand the complexities of broadcast equipment, became essential in early radio. Most early broadcasts were mainly heard by amateurs, who also built many of the early stations. One of the areas where the amateurs really made their presence felt was in disseminating information. The beginnings of commercial radio (1920–22) occurred in an era long before computers, when much of the United States did not even have long distance telephone service, and some rural sections still lacked

An exceedingly rare photo (courtesy of his daughter Geraldine Harrison Lattimore), of Gerry Harrison, Boston's first pro wrestling announcer, at the station where he first started doing the matches, WLEX in Lexington, MA.

electricity; the "wireless" emerged as an excellent way to keep people up to date. For example, the *New York Times* reported on December 16, 1920 that the government was now making its daily market reports, with the latest quotations on fruits, vegetables, livestock, and grain, available to the amateurs; it was these ham radio operators who then distributed the information to newspapers, shipping agencies, and companies interested in agriculture. Some hams who had their own station also arranged to send the information out via the airwaves. A well-respected ham in Denver, William "Doc" Reynolds, operated that city's first (and for a time, only) station throughout 1921, using his amateur calls 9ZAF. While he was best known for broadcasting music, which he sometimes did from a moving vehicle equipped with loudspeakers, he also offered sports scores and local information, which, according to the *Rocky Mountain News*, the community came to depend on. (Station 9ZAF became KLZ Radio in early 1922.) When the hams were no longer permitted to broadcast, the commercial stations took over, receiving the sports scores by telegraph and then broadcasting them to an eager public. When the hams were no longer permitted to broadcast, commercial stations received the market information direct from the appropriate government agencies, and it was announced each weekday; this was especially welcome in rural areas, where farmers were grateful for much faster access to news they needed. While we today may not think of market reports (or even weather reports, which also proved very popular in the rural areas that worried about storms or tornadoes) as news, to the listeners in the early '20s — and keep in mind, there was no official way to do a newscast yet — this information was quite newsworthy, and radio made it easy to obtain.

Recognizing Radio's Reach

In late 1921, at least one station began doing reports on the economy; in mid-December, the well-known economist Roger Babson, spoke on station 1XE (later WGI) Medford Hillside MA, and thousands heard his talk. He decided to return in subsequent weeks to give his forecast of economic conditions, and his comments were quoted by the print media (which refused to mention that the talk had come from radio — they might mention the city where the talk was given, but they would not include the station's call letters). If you recall the article I wrote about 1XE, the AMRAD station, in the June 1999 issue of *Popular Communications*, you know about some of the innovations of this pioneer station, the first to broadcast in Massachusetts. In addition to helping launch a successful career for Mr. Babson, who later spoke on much bigger stations, 1XE was among the first stations to work with law enforcement in catching criminals. The Boston Police quickly figured out that the new medium of radio reached a very wide audience, and in May of 1921, it was decided to broadcast nightly reports of stolen cars. Eunice Randall, the station's assistant chief announcer (and one of the few women engineers), was one of the first to read these reports, which described the car, gave the license number, and provided a number that listeners could call if they saw the vehicle. And according to the newspapers, some of the cars were actually recovered because listeners did call in tips. The modern TV show "America's Most Wanted" probably has no idea that the basic concept was being used on 1XE, as well as on stations in several other major cities, in 1921. (And few people recall that the New York City Police even operated their own station in 1922, to keep the public informed about police activities— its call letters were WLAW). Detroit too had a police station for a short time, and it used the call letters KOP.)

There were several reasons why early broadcasters did not immediately attempt to do regular news. For one thing, some very real technical limitations existed in the early '20s, making such reporting difficult: going outside the studio to do a remote broadcast at the scene of an event could be very complicated, especially if renting phone lines was involved. The company which owned those long distance lines, AT&T, did not usually rent them out because AT&T had its own station, New York's WEAF; for a time in 1922–23, only that station and the Chesapeake & Potomac Telephone Company's station in Washington DC, WCAP, got to use the high quality phone lines for remote broadcasts. There were other lines, meant for telegraphy, that many stations ended up using, giving them poor quality and plenty of resentment towards AT&T's monopoly. (On some occasions, AT&T did in fact make exceptions, if you could meet the price they quoted to rent their lines. Most small stations could not.)

How It Was Done

If there was no access to long distance phone lines, the only way for the majority of stations to cover a story was to get there and actually transmit from the scene. But only a very few stations had their own high-quality mobile equipment which they could pack up and take to a news event: for example, in early 1922, WJZ in Newark made use of the news truck from the *Newark Sunday Call*, and 1XE/WGI used a delivery truck which was outfitted with sending and receiving equipment. In the mid-'20s, there were also a handful of roving stations called "portables," which operated in a variety of locations, such as at state fairs, amusement parks, and conventions. But again, these were the exceptions. For most radio stations, they had a fixed studio location, and getting to a breaking news story in a timely fashion was not easy. Also, audiotape had not yet been invented, so a radio reporter couldn't even come back to the station with any

Here's a rare photo of a portable station. Some early stations had a portable rig, usually installed in a truck, so that they could broadcast from an event. This photo shows the portable of WTAT, the Edison station in Boston, along with announcers and an engineer, circa 1924. Photo courtesy of David Horn.

interviews to play on the air. Given these complexities, it is no wonder that most stations, even those run by newspapers, tended to concentrate on playing music. It was much simpler to find people who wanted to perform. Print journalism had the upper hand at this point: nobody expected the newspapers to have the story immediately, and nobody expected to hear the newsmaker's voice while newspapers could offer lots of photographs and in-depth descriptions, radio could only offer immediacy when the event was still going on and a reporter was able to get there. That is why when radio stations broadcast news in those early years, they usually invited reporters from a newspaper to come to the studio and expand upon what they had already written in their columns.

But there were times when a news story happened near enough to the station (such as at a local hotel or convention center) that radio was able to carry it – in 1921–22, political figures speaking on radio for the first time were definitely making news. Women had just gotten the vote in 1920, and in early 1921, KDKA in Pittsburgh was able to broadcast the banquet of the Pittsburgh Press Club from the William Penn Hotel; one of the speakers was newly elected Oklahoma Representative Alice M. Robertson. There is evidence that KDKA also carried a talk by President Harding in early 1921, and a Baltimore station, WEAR, is said to have carried a speech by him in June 1922. (We certainly know that President Harding thought radio was important; he had his own receiving set installed at the White House in February 1922 so that he could listen in like the rest of the country's radio fans.) As radio became increasingly essential in people's lives, a number of mayors, senators, and dignitaries realized they could increase their own name recognition by broadcasting. They went to the studios of their local station, and began giving talks. While this may not sound like our expectation of news (or even sound very interesting), the audience seemed to respond favorably, just because it was an opportunity to hear what these people sounded like. Soon, those politicians who were inarticulate or couldn't give an intelligent speech were at a disadvantage. Many candidates became very fond of radio, and it was soon a part of many local campaigns. The reason was obvious: where in the past, it hadn't been possible to visit every part of their district, with one good radio speech, a candidate could be heard for hundreds of miles, while getting a reputation for being up to date and in touch with the latest technology. One of the first members of congress to put radio to good use was Republican Senator Harry New of Indiana, who appealed to his constituents by radio in late March of 1922; his talk, which he gave from his senate office in Washington D.C., was heard in numerous places throughout Indiana and even made the national newspapers. The next night, Rep. Alice Robertson, already known as a dynamic speaker, decided to try a broadcast from her office. Unfortunately, one problem in early radio was constant and unexpected technical difficulties, such as static, fading, and interference; Miss Robertson had the bad luck of trying to broadcast on a night when reception was terrible. Undaunted, she used a telephone and delivered her speech as a long distance call, to the amusement of the *New York Times* which, like many newspapers, was perfectly happy to report on any problems radio was having.

Overcoming The Obstacle

Despite the previously mentioned obstacles, it appears that many early stations found a way to have regular newscasts — which, as we shall see, that caused a whole new set of problems. While "Famous First Facts" credits WBAY in New York with being the pioneer in broadcasting a daily newscast (largely, it seems, on the strength of a press release published in the *New York Times* saying such an event would occur beginning the first of September 1922), there were already other stations experimenting with daily news. It should come as no surprise that 1XE/WGI was one of them. While much of the WBAY (later WEAF) broadcast was to be set aside for radio news — that is, news about the latest technological advances and questions from listeners about building a better radio, WGI made arrangements with the *Boston Traveler* newspaper in mid-March 1922 to do daily news bulletins and an in-depth 3 p.m. newscast which concentrated entirely on news of the day. According to the *Traveler*, "These [news] broadcasts at present consist of items of foreign, national, and local interest, chief features of the stock market, expert comment on market affairs, an item for women only, [and] pithy... editorial comments on current events." (*Boston Traveler*, May 5, 1922, p. 11) Sometimes, Guy Entwistle, the *Traveler's* radio editor, came on the air to comment about regulations and laws affecting broadcasting, but in general, the newscast was much like what we would expect a newscast to be today, except for the fact that the *Traveler* reporters read the news from their own areas of specialization, and there was much more description of events. Like the *Detroit News*, the *Traveler* seemed to realize that if a story was breaking after the newspaper had gone to press, radio offered a fine way to up-date the audience and then encourage them to get the newspaper for further details. WGI also had an arrangement with the *Boston American*, to do an evening newscast. In describing it, the *American* explained that it wanted to offer the radio listeners news that had

occurred too late to be in the last edition of the newspaper. Here again, rather than seeing radio as a threat, the *American* (and other Hearst newspapers) embraced radio. But as I mentioned earlier, not all editors were so enthusiastic.

Tough Talk From AP

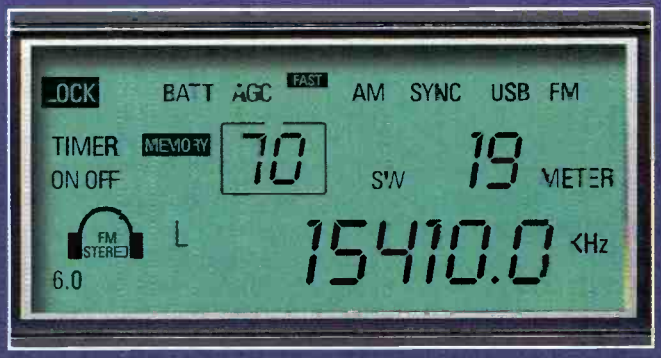
The biggest and most powerful of the wire services, Associated Press, provided news to hundreds of newspapers all over the United States. Their news could only be used by permission, and only from newspapers which were subscribers. When radio came along, several of the newspapers which operated or worked with the pioneer stations were members of the Associated Press; this included 8MK's parent, the *Detroit News*, the *Pittsburgh Post*, which worked with KDKA, and the *Boston Traveler*, in partnership with WGI. It presented an interesting dilemma. Reporters from the newspapers wanted to read the news on radio, but some of that news came from the Associated Press (AP), which had to give permission — and more and more, AP began to refuse as radio increased in popularity. AP, evidently concerned that radio would bring so much competition that it would hurt the sale of newspapers, issued a memo in mid-February 1922, forbidding its member newspapers from helping radio by providing news for them. Afraid of possible legal trouble, the Westinghouse stations temporarily stopped broadcasting any news at all. Other stations tried to find ways to get around the memo — the Hearst newspapers had a wire service called the International News Service, and there was no complaint from that company about giving radio access; but because AP was the best known and had the most contacts all over the world, their efforts to stop radio from using any of their material had to hurt. If stations needed an excuse not to broadcast news, the threat of legal action from AP might have convinced them.

On the other hand, despite the tough talk from AP, on a case by case basis, some stations did get permission to use newspaper material. In fact, in the March 31, 1922 story in the *Boston Traveler* announcing its arrangement with WGI, there was a brief remark about the newspaper receiving "special permission" to do so, for the purpose of advancing new technology in newsgathering. And although Westinghouse may have told the AP they had ceased doing news, they seemed to have resumed by the late fall of 1923; in December, Radio Digest announced a new feature was being heard on KYW (then in Chicago), "The World Crier," which, according to the station's manager, used the morning and evening newspapers plus other reports to provide a newscast every half hour. But throughout the early '20s, AP's official anti-radio posture remained in effect, and from time to time, General Manager Frederick Roy Martin or his staff would catch a member newspaper disobeying the memo; several newspapers were fined for doing so. Still, despite ongoing negative comments from AP and from certain magazines which dismissed the impact of radio, many stations of the early '20s continued to offer at least one newscast a day; it stands to reason that they still got their information from newspaper reporters, whose newspaper more often than not belonged to AP.

Late 1922

In their December 9, 1922 issue, Radio World reported that there were 582 stations on the air, and 83 of them were owned by newspapers and/or magazines. Most of these were no threat to AP, since they used their station primarily to enhance their image in the community and give their reporters some publicity. While the *Detroit News* station (by now officially known as WWJ) had some news bulletins and covered events like boxing matches or political talks, most of the station's programming was music. The newspaper tied its name in with everything on the air, of course — one group of performers was known as the Detroit News Orchestra, even though nobody in the band was a news reporter. In Springfield, MA, Westinghouse station WBZ continued to have the reporters from the *Springfield Union* and the *Springfield Republican* come in to give talks — drama critics, women's page editors, and humorists were always in demand. But on a serious note, in April of 1924, the editor of the *Republican*, Waldo L. Cook, gave a talk about how radio and newspapers should stop thinking of each other as competitors, and keep working together to give the public even more information. In Brooklyn, New York, the *Brooklyn Eagle* permitted its famous editor and columnist H.V. Kaltenborn to broadcast on the Signal Corps station, WVP, as early as April of 1922; he not only did news but also did a weekly commentary, and he was among the first print journalists to begin using radio to express opinions; he was soon on the air in New York and would remain an influential radio commentator for decades Meanwhile, in Washington, D.C., a long-time print journalist from the *Washington Star* also became popular as a radio commentator — Frederic William Wile's news commentaries on WRC, which began in 1923, got such positive response from listeners that by 1926, he was profiled in several radio magazines, and he ended up broadcasting for NBC. *Boston Globe* columnist Willard DeLue, who had expertise in travel, aviation, Boston history, and numerous other topics, was a welcome guest on Boston radio throughout the mid-1920s. Based on correspondence of his that I have read, DeLue genuinely enjoyed giving educational talks, which he researched and wrote himself especially for the broadcasts. He also enjoyed telling the listeners about the world of print journalism, explaining to them what went on behind the scenes and how various departments of the *Globe* operated.

GRUNDIG The



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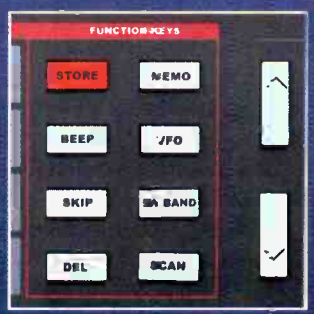

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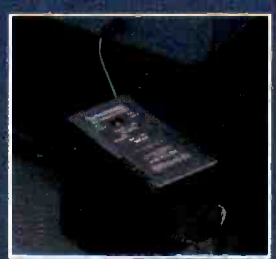

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Radio's Spontaneity — And President Coolidge's Radio Speeches

And I could not write about early radio news without mentioning a couple of stories that radio covered first, ahead of the newspapers — although sometimes that was because the station was part of the story. In March 1923, listeners to WEAN in Providence heard first hand that the Shepard Department Store was on fire; the announcer at the station (whose studios were in the building) continued to describe the scene until the fire department ordered him to evacuate with everyone else. A similar story had occurred in Atlanta in 1922, and WSB was close enough to provide the early details; this turned out to be a good thing because some off-duty firefighters heard the report and rushed to the scene to help out, getting WSB some very favorable publicity in the process; the story even appeared in the prestigious "Literary Digest" magazine. And much later, in April of 1932, radio would also get a scoop it didn't really want, when WBZ (by this time in Boston) broadcast a live event that was supposed to be a publicity stunt, but which went tragically wrong; a circus lion, which was supposed to roar on cue, got loose from its cage and rampaged through the studio, injuring a number of people while the horrified station staff announced the entire scenario.

Gradually, it became impossible for the newspapers to deny radio's influence. In early December 1923, President Calvin Coolidge gave an address to Congress, and the fact that radio was about to broadcast it, said one newspaper, meant that "[his voice] will be heard by more people than the voice of any other man in history." The speech required some hard work on the part of AT&T — in order for a number of stations to participate in the historic broadcast the phone company installed about 3,800 miles of long distance telephone lines. Interestingly, contrary to the myth that he rarely spoke (he was often called "Silent Cal" and known for choosing his words carefully), President Coolidge was a frequent user of radio, giving about one speech a month. Most of us studied in school about how President Franklin Delano Roosevelt made frequent use of radio during the Depression with his popular "Fireside Chats," but the audience of the '20s became quite accustomed to hearing presidential talks thanks to Presidents Harding and Coolidge.

The '20s saw the number of news events growing, as technology improved and radio was better able to carry them. 1924 was the year when both the Republican and the Democratic presidential conventions were broadcast for the first time (along with some not so flattering commentary about who spoke well and who didn't). The Associated Press continued to resist granting radio permission to use newspaper reports, but as the 1924 presidential elections approached, another of AP's competitors, United Press, was working with New York's WEAF through member newspaper the *New York Sun* to provide full election coverage; well-respected announcer Graham McNamee read United Press and *New York Sun* reports as election results came in; in fact, United Press even encouraged its member newspapers to broadcast. Meanwhile, two major newspapers, the *Chicago Tribune* and the *Boston Herald*, refused to obey AP and said they would work with radio on Election Day. Even the respected print journalism trade magazine *Editor & Publisher* was softening its opposition to radio news, and saying that it could on certain occasions serve a very useful purpose (although of course, it could never replace print). And on the radio side, *Radio World* magazine said in its July 19, 1924 issue that the broadcasts of the presidential campaign were making the audience even more interested in politics and helping Americans to be better informed.

Radio News Comes Of Age

As major news occurred, more and more stations made an effort to carry it, so many, that by May of 1925, the Associated Press had to slightly modify it original ban on radio news. The members voted to permit the use of AP news on radio if an event was "of nation-wide importance." Thus, the now famous Scopes evolution trial, which took place in Tennessee in July of 1925, was broadcast. Listeners heard the views of some outspoken and controversial speakers on world issues and current events when WBZ, whose signal carried well beyond Boston, began broadcasting the monthly "Ford Hall Forum." Sporting events, from baseball to boxing to hockey, were heard, as were daily business reports from the *Wall Street Journal*, as well as stock quotations and market reports. Also by this time, many stations offered something farmers and residents of rural areas found especially useful, expanded weather reports. If you looked at the radio listings for a typical day in late 1925, you would find that while music and specialty shows (women's hours, children's story time) dominated the programming, nearly every city had at least one station with news bulletins or a full news broadcast.

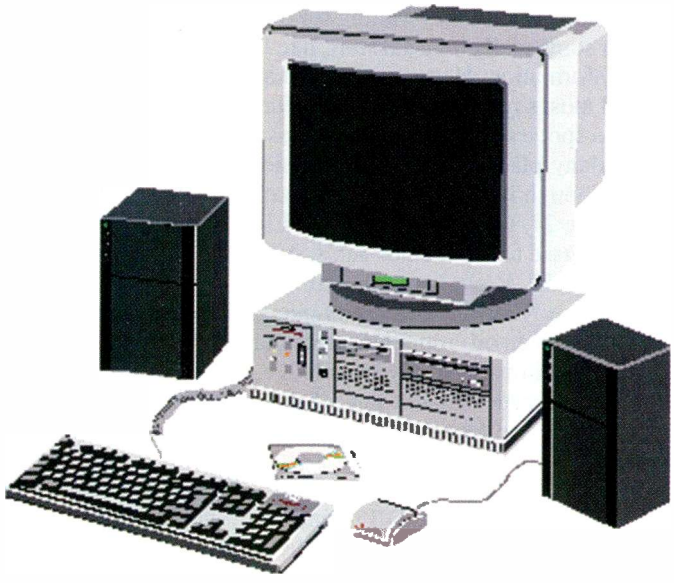
"News" was still being defined in radio's first decade: broadcasters acknowledged that radio was primarily an entertainment medium, yet many of them realized there was a need to provide the listeners with more than just dance bands and preachers. Some media historians have said that what DeForest, 8MK, 1XE and even KDKA did by broadcasting stolen car reports, election returns, and reports from financial markets was not the same as doing regular news. If we apply today's standards, I cannot disagree. But in the early 1920s, those standards did not exist. Early radio certainly did not have "news on the hour" nor even the concept of a "news department" during those formative years. Program managers were literally creating policy as they went along, and news of the president's latest speech might appear in the same newscast as information about tonight's wrestling matches. (And I would be remiss if I didn't mention that wrestling matches were also considered newsworthy back then — reports about wrestling were found on the sports page of some 1920s newspapers. A Boston announcer, Gerry Harrison, became locally famous for his play-by-play of wrestling, which he ultimately brought to New England's Yankee Network in the early 1930s.) Some stations aired announcements of lost pets, or put descriptions of missing children in the newscast. Throughout radio's formative years, an increasing number of stations found ways to provide whatever serious information the audience required, whether it meant hiring a meteorologist (several stations had their own weather expert by the mid-'20s) or bringing in newspaper reporters to elaborate on a story they had covered. As unstructured as some of it was, these first attempts at doing news via the airwaves gave listeners the opportunity to be better informed, regardless of their social class or where they lived. For making those efforts and for believing in broadcast journalism, these early pioneer stations deserve our thanks. ■

Donna Halper is a radio consultant and media historian. She is the author of "Invisible Stars: A Social History of Women in American Broadcasting," which was published by M.E. Sharpe in May 2001.

computer assisted radio monitoring

by Joe Cooper

What You're Saying About The Column



For those of you who have survived the two-month trudge through the topic of serial ports, I congratulate you. From here on things will get better. However, given how central connections between your computer and your monitoring radio are to success, I felt that such detailed information was needed for reference.

I also wanted to use the first two columns to find out how you, the reader, felt about what I was offering. Well, guess what? I've got some controversy brewing already! There is nothing like personal computers to split a group of people up into different camps.

Given the amount of correspondence that I was getting — both good and bad — I felt that this column would be a good one to focus on what was being said. After all, my entire job in writing this column is to get the information you need onto the pages that you read. Here are some of the ideas and suggestions that came my way.

One thing that is very apparent is the wide range of interests that people have. There seems to be four main categories of computer users and they are:

Those who want to computer control low, medium, and high frequency-compatible radios;

Those who want to control scanners or "DC to Daylight" radios for VHF and UHF services;

Those who want to decode digital modes, such as CW, RTTY and FAX using computer software;

Those who want to either build data bases of their logs or use pre-built databases.

Please note that I'm not going to touch upon the transmitting side of HAM radio due to the fact that there is another columnist in this magazine who covers those topics. However, I'll not turn away serious inquiries or questions from the Amateur Radio readers if it appears that my answer could be of value.

At the end of the column I'll summarize what I believe you, the reader, want me to focus upon. Take a look at it and tell me what you think. I might not be able to satisfy everyone's wishes, but if I can get it as close to consensus as possible I'll be doing well.

So on to the letters!

The Letters

Hi Joe,

I just read your first story in *Pop'Comm* about adapting computers and radios. I'd like to see in the future if anything can be done with the equipment I have now. I am a licensed ham, (techno code) so I have some 2-meter and 6-meter transceivers, but I think the one I'd like to ask you about is my SW listening. I have a four-year old "Drake SW8." It has an external speaker jack on the back. Can that be used for a computer hook up? I'm new at this, (57 years old), so I'm not sure just what the computer angle will consist of. Thanks for any help you may send my way.

Bill Hanley

I don't know what I can do about the transceivers, but certainly the SW8 is within the scope of the column. Frankly you can open up a whole new world for yourself with that external speaker jack. In future columns we will look at how to put a cable between the SW8 and your computer's sound card using that jack and then use the computer to decode a wide range of digital signals.

Many free or nearly free software packages exist that allow you to turn your computer into a very nice DSP audio filter. The sound would go from the SW8 to the sound card's microphone jack, and then be processed by the software. This would allow for the selection of an audio bandwidth with a very sharp cut off on each side, which would allow you to hear (though speakers attached to the sound card) weak stations that have a lot of interference from other stations on each side of them on the dial.

Next to the serial port, one of the main topics that I will be covering is sound cards and how to get the most use out of them. Trust me when I say that I am going to be making these very useful devices as understandable as possible when I write about them. They truly are easy to use, and once mastered, make radio monitoring very exciting to do.

Joe:

I am looking for software that would decode RTTY PSK AMTOR, etc. Hopefully, something that will decode most (if not all) the Amateur and commercial systems or modes.

Your help would be much appreciated and, I am running Win ME on a Compaq 1200 laptop. My rig is an Icom R75 however, I will soon have the Ten Tec RX320 in the shack also, thanks

to your last review and the Dxtra software! (Thanks, I think!)

So...any comments on how decode programs would interface with the RX320 (once it's loaded) would also be helpful. (I'm no techie, so I'm struggling with how a decode program would "hear" the RX320)

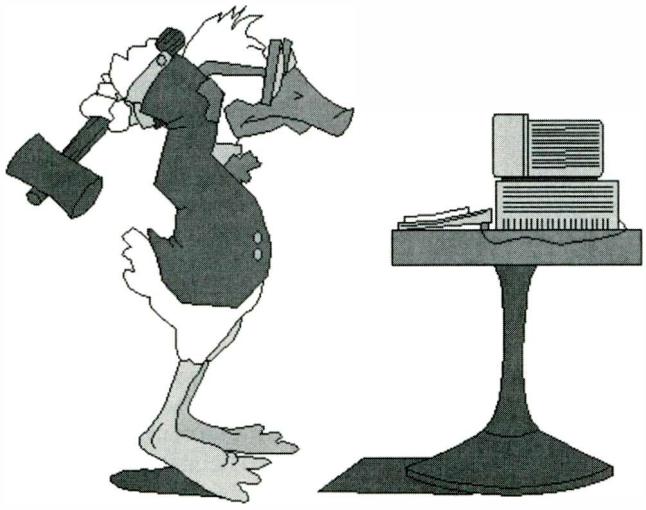
Oh, last Q I promise, my laptop has a 1/8" Mic Input jack on it, could that be used to input form my Icom R75 by way of the R75's 1/8" line out or record out jacks? Thanks so much.

Brian Saade
KF6OOH
Bsaade@aol.com

Brian's letter gets us even closer to where I will be going over the next few columns. Yes, the set-up that you are taking about is precisely what I want to deal with. Note that you are not limited to desktop or tower computers. I've got an old 486 CPU based laptop with a black-and-white computer screen that is ideal for using a serial port based software decoder for RTTY and other digital modes.

To answer your RX320 question, the decoding would take place using the soundcard on your computer. In the case of the laptop, you would control the RX320 through your serial port, using either the supplied software or the DXtra program. You would use the audio cable supplied with the RX320 to plug between the audio output in the radio and the microphone jack on the laptop. You would then run a separate software program for decoding digital modes at the same time as you run the radio control program.

In future columns I am going to be showing you how to get the most out of your computer by being able to use multiple software programs effectively. Many people don't know how to do this, and lose much of their computer's power and potential as well. I'll go over that in more detail and with illustrations at that time.



Your columnist going over some recent letters.

And Then There's The Critic

Dear Mr. Cooper,

I am a computer technician by trade, and have subscribed to *Pop'Comm* since January of 1998. I have followed your "Utility Radio Review" since its inception in the June 2000 issue, and was especially excited to see the photo of another shack with a computer in it. However, I was surprised at the caption being "for receiving RTTY." I find far more use of my radio for controlling my scanners. However, what can you expect from the author of a Utility radio column? I also especially enjoyed your January 2002 article on "World Terrorism and our Radio Monitoring Ethics."

Once I saw the cover of this month's issue (March 2002), the first article of "Computer Assisted Radio Monitoring" seemed to be the great column which I was waiting for. I have been using ScanCat for two years (next week) and love it! This seemed to be the Holy Grail I was waiting for in the magazine. I was hoping for some really unusual stuff, like free programs or in-depth mod information. However, I found an article on Serial ports. Now, I must say, this proved very informative. However, I managed to spot a few errors. They are as follows:

1) Many places — DB25 is considered a Parallel port, not serial, though it can also be converted for DB9 Serial.

2) Page 27, Left Column, Par. 4, Line 2 — Serial ports have not been used for mice since 386's. All 286Enh systems use PS2.

3) Page 27, Right Column, Par. 1, Lines 6-8 — In my long life, I have NEVER seen a computer without a parallel port. They have been on computers since mainframes, and are on the newest Pentium 4s. To my knowledge, a modern computer has never been made without one. If this fact is disputed, simply look through the detailed specs of any motherboard or computer system.

4) Page 27, Illustration 2 Caption — The illustration is of a "DB25" serial port not "DB5," and "fsr" should be "far."

5) Page 28 Par 2 and 3 — The term "bytes" should be exchanged with something like "data." The data moved is never referred to as an amount, but rather as "data" or a synonym, or a specific term (such as "code" or "spool").

6) As an overall comment, it might be considered to review things in a more modern computer sense, and to use a digital camera for the photographs instead of hand written illustrations.

It would be appreciated if at least the majority of these comments were reproduced in next month's "Errata" column.

I am very much looking forward to next month's edition of your column, and to the possibility of discussing some other software solutions. As to the soundcard, I think that an article on that would be extremely interesting. I have never found any software which worked with my scanner, and I would very much like to be able to decode WeFax, NAVTEX, ACARS, POCSAG, and other data protocols.

A Loyal Reader,
Jason Antman
Midland Park, NJ

Well Jason, you've just been declared an official "associate reader" of the column. You must solemnly swear to read each column and faithfully promise to send in detailed reports like this one telling me where I went wrong. I mean it. Likewise you will also promise to be available for technical questions.

One of the reasons why I dove directly into serial port territory is because it is the area where problems constantly take place, and where debates rage. In my contact with the people who write control software, they have all said that serial ports are the biggest pain that they must endure.

Anyway, as I explained at the beginning of this column, first I wanted to find out who was reading and what level of technical skill they wanted. I also wanted to see how many stones were to be thrown at me (ouch!)

I will agree with some of the points you make, but I will also debate you on others, for example, the point about DB25. Yes, the serial ports of modern computers are standardizing to male DB9 plugs, and female DB25's are parallel printer ports. What I was trying to cover was the generic specifications for serial ports as some readers may wish to use older computers, including 386 and 486 CPU based models.

Likewise, when you write up a column very late at night you will occasionally type FSR rather than FAR because of a finger slip. It's called being human, and frankly at this point in my life I've got far too few days left before my personal "Best Before" expiry date comes due to care. As long as you can make the correction in your head then I'm not going to worry. If it makes it impossible to understand what I am trying to say, then that's something to be concerned about.

You will also be getting your digital camera pictures too! I've got one and know how to use one, but it is also a pain to set up the shots, particularly when it's just to show a cable going from a computer to a radio.

In the meantime I will look up the scanner questions you have asked. All I ask is that in the future please don't hold back on how you feel about things like you did in this E-mail.

And Fans!

Here is another point of view on serial ports and my writing about them.

Joe,

Pop'Comm came today. Very good article about Serial Cables! That is right on the "Target Level" we need, at least I do. I think most SWL's who are new to computer control radio are at the level of your writing. After all, I hear the questions they ask!

With all of the hook up capabilities and accessories such as hubs we are easily confused. Keep up the good work. I hope other feedback is mostly the same, or at least close to mine.

I have two very good examples pertaining to this mysterious thing called "file conversion" (when the program writers mention such things as " our xxxx program can open most all dbf formats if you.....). I'll send the two small samples as file attachments tomorrow. Have a good day and thanks for the much needed kerpooter foundation to help all the people new to this!

73 Ole John T. Wagner, Ohio

Thanks, John for helping to restore my feelings of self-confidence as a writer. Your comments on file conversion and structure are very important. Frankly I am thinking of doing a detailed article on the subject rather than trying to fit it into the column. I've had a lot of questions directed to me about this topic and it is an important one. I'll keep people posted on this in the column, and I ask each and every one of you who has experienced the heartbreak of file conversion to tell me more about what is troubling you so I can get it into the article. Likewise those who have found great techniques that work, please share them with us!

Hi Joe:

Just saw your column in the latest issue of *Pop'Comm*, and I was delighted to see something on the use of PC's for scanning.

I am just kind of getting started, and would like to see something on SCANCAT GOLD with the special government package. I was hoping you might review, mention, or even inform about that. It is a little overwhelming for the novice, even though it is supposed to be user friendly.

Also, I would appreciate knowing how to import frequency lists off the net into a program that makes a readable database for Scancat or any other program. I know you can do it, but again, I'm a novice, so thanks for keeping it simple.

Best regards — look forward to reading your regular column.

Toby Miller
miller.toby@att.net

Thanks, Toby for the good words. I have several radio control programs installed on my computer that I am currently evaluating, including some very interesting beta versions. Certainly SCANCAT GOLD is on my list of usual suspects that will be reviewed sometimes soon. I'll also address the issue of usability.

When I am not busy mistyping words for this column I run my own consulting business producing technical documents for the computer software and hardware industry. Part of my training has been in the field of human factors, which deals with making technology more usable by making it simpler and easier to understand. I'm hoping my software reviews will make people aware of what makes a program a good one to use.

One In 20?

Dear Editor,

As new subscriber, I would like to point out to your contributing writers that MacIntosh computers DO exist and are also enthusiastically used by radio fans such as myself. As an example, I was particularly bemused by Joe Cooper's article in your February edition about computer assisted radio monitoring — or Hank Brandli's article about HF Wefax. Nary a mention of Macs, although I'm told that about 1 in 20 personal computers currently in use happen to be from Apple.

And, get this, there IS software written for Macs that will decode CW, RTTY, FAX, WEFAX, ACARS, etc., etc. which is written by Chris Smolinski (www.blackcatsystems.com). Chris also offers Audiocorder for Macintosh users, which allows the unattended recording of audio to a Mac as well as a host of other radio and audio related shareware.

Ignoring the presence of Apple computer users further fosters the erroneous notion that while Macs are good computers, there is no specialized software written for them and therefore their usefulness is limited.

As a Mac fan since 1984, I can tell you that it just ain't so. It might take a little longer to find what you're looking for, but the user-friendly nature of Macs, makes it well worth the effort.

Sincerely,
Spencer Carter

Well Mr. Carter, you and your fellow Mac users are going to have to help me here because frankly for every one of you in the general world of personal computing there are 19 PC users. Let's extrapolate that to those who also have monitoring radios that are computer compatible. I think you can see that the range of possible readers then drops considerably.

When I write, my goal is to make the information I provide as generally useful as possible. If the numbers warrant, I will include Mac information in my columns, but first they have to show me that they are there. Is there anyone out there — other than Spencer — who owns a Mac and wants to know more about using it to either run their radios, decode signals, or log their sessions.

I'm waiting for an answer.

And More Critics

Joe,

Two questions [relating to my first column back in January 2002]:

1. Listen to the BBC? I thought they went "off the air." Are you telling me we can still pick up their other stations? Are any of them in English?

2. A Pentium with 8 Meg of RAM & 500 Meg HD? 8-Meg of RAM would not be enough to even run Windows 3.1! (I thought Pentiums came with nothing less that 32 Megs?)

Phil Karras, KE3FL
E-mail: ke3fl@arrl.net
Web: http://www.qsl.net/ke3fl

Sigh — Oh well, I guess it shows that people are actually reading what I type (badly it appears). As far as the BBC comment goes, let's just put that down to a matter of habit instilled by over 30 years of radio monitoring. I'm still not fully adjusted to the shock of one of the premier shortwave broadcasters pulling the plug.

As far as the Pentium rig, that's a description of one of my own rigs that I used for years. It originally came with Windows 3.1 and a 320 Meg HD. I later upgraded to Windows 95, which ran reasonably well with the 8 Megs of RAM. When I was finally able to upgrade it to 32 Megs the processing was very fast and smooth, for an early Pentium. However, I would not consider upgrading that computer to Windows 98 or use many contemporary software programs. But that's the point — you can pick up a computer like that one for a couple of hundred dollars or less and use it to run your compatible monitoring radio with little or no problem.

Last Word

So there you have it; a good overview of what ended up in my mailbox because of the last three columns. From what I can see, most of you want to know the practical side of using your computers and radios, particularly when it comes to operating the software.

Sounds good to me, and that's what I'm going to be focusing on: how to get the most out of what you have, focusing on the commercial products that are popular and available. "Show me how to make it work now that I have it!" will be the main theme for the upcoming months, and I look forward to providing you with that information.

Thanks to you all — both critics and fans — for writing. Please keep the E-mails and letters coming as each is read and appreciated. Remember to keep me honest by telling me where I went wrong! ■

the wireless connection

a look behind the dials

by Peter J. Bertini, <radioconnection@juno.com>

A Restoration Nightmare: So, Improvise!

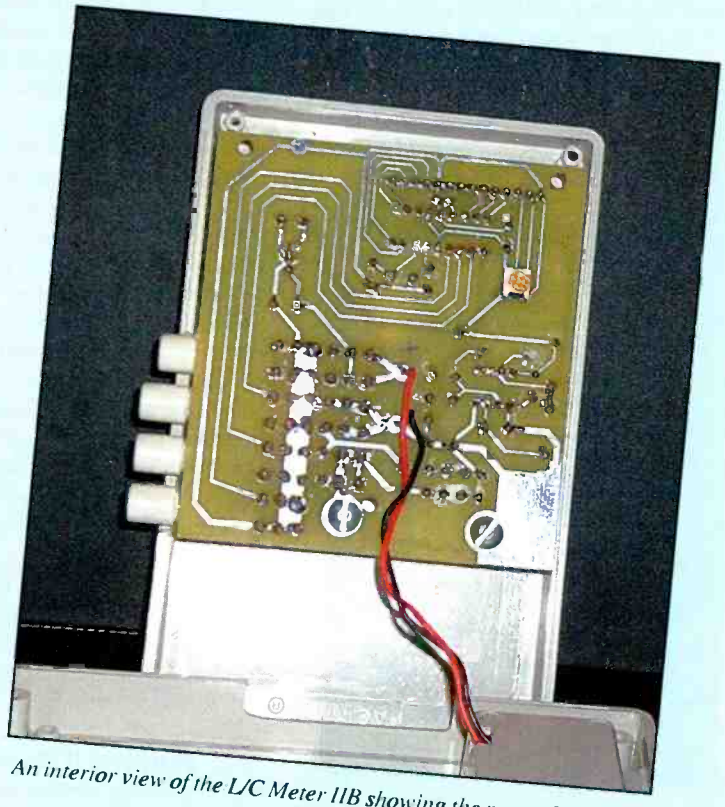
It's late on a Saturday night — everyone is in bed — now's that chance to get to the workshop and dig into that special restoration project you've been itching to finish up! All of the routine restoration work has already been done; but still you can't get past the shortwave band alignment problems that plagued you the last time. Tonight it will be different. Three hours later you finally find the problem. Coil L3 is missing. Not there — gone. The part was removed a long time ago. Perhaps it was bad and needed to be replaced, or maybe it was damaged by the person working on the radio. Whatever happened, the part was never replaced.

A Solution

One of the worst restoration nightmares is a set that has a busted, missing, or severely damaged IF or RF coil. If you collect and restore radios, sooner or later you will run across this problem; and congratulations, you've just the joined the club! Unless you're lucky enough to find a useable part in a donor chassis, you're going to have to improvise. Do you have an adjustable coil in the junk box that could be made to work? How do you tell? Or, how do you determine the value of a custom made fixed-value mica padder capacitor used in the RF deck of a communications receiver? The value isn't given on the schematic, and you're sure the part is responsible for the thermal drift problems you are trying to cure. For another example, I've had several E-mails from readers regarding IF transformer problems. The more "modern" IF transformers used adjustable ferrite cores and had fixed value mica capacitors located in the plastic base assembly. Over time, the conductive silver coating on these capacitors will migrate — the failure often sounds like a set tuned full-volume to a blank channel during a lightning storm!

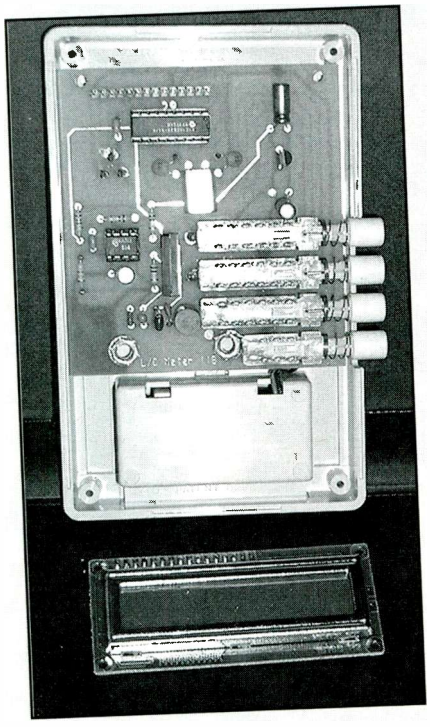
For most generic run-of-the-mill AM BCB radios that use the 3/4" Miller *K-Tran* clip-mount style IF transformers, the capacitor is nominally around 100 to 120 pF. Last March, reader Dave Johnson wrote and asked about a problem he was having with the internal IF transformer capacitors in a Hallicrafter S-53A communications receiver. I suggested starting with 100

The Almost All Digital Electronics L/C Meter IIB was built from a kit by the author several years ago.



An interior view of the L/C Meter IIB showing the rear of the main PC board.

pF capacitors; I felt fairly confident they would work. Dave wrote back a few weeks later to tell us he finally had to use 350 pF replacement capacitors before the IF stages would reach resonance at 455 kHz! Obviously, Hallicrafters was using different L/C ratios, probably to help shape the receiver BW for communications rather than fidelity needs. If we had a way to measure the inductance of the transformer windings, it would be fairly easy to determine the required capacitor value to resonate it at a specified frequency. The same for finding a replacement RF coil for the missing L3 in our opening example! If we can measure the tuning capacitor maximum value, we can determine what inductance is needed for that particular SW band. Using a slug-tuned coil would allow for some fudge factor — a means to tune out any small deviation from the original value.



A second view of the L/C Meter IIB interior showing the details of the main board components and LCD display daughter board.

In radio work we normally use pF and uH value components in the RF and IF stages. Calculating what value capacitor (or what value inductor) is needed to resonate with a certain value inductor (or capacitor) at a given frequency requires some knowledge of high-school algebra, and a cheap calculator. The formulas are shown in the ARRL Handbooks, but why bother? I'm sure most of you hate math as much as I do! Go to one of the URLs listed below, plug in the values you have, and find the unknown! http://homepages.goldsmiths.ac.uk/rdavis/resonancecalculator.html, or http://www.ctspectrum.com/calcMisc.htm. What could be simpler; provided we had a means to accurately measure at least one of the component values to begin with.

The Almost All Digital L/C Meter IIB

I've been using an Almost All Digital L/C Meter II (the predecessor for the IIB) for several years. The meter is sold in both kit and assembled form; mine was built from a kit. I'm sure many readers will asking by now: "Do we need a lab quality, accurate L/C instrument for simple vintage radio restoration work?" Well, the price becomes more attractive if you're also a licensed amateur or SWL. The meter is great for winding precision loading coils and traps. It will allow you to measure unmarked capacitors and chokes; or to precisely match parts by storing and comparing against a stored value.

The L/C Meter IIB is designed for components used in audio and RF work. It is not designed to work with polarized capacitors, nor to work with inductor values suited for power supply filtering etc., inductors must have a reasonable Q for their value, and negligible distributed capacitance. The range of the meter is from 0.001 uH (1nH) to 100 mH (most units will work to 150 mH), and from 0.010 pF to 1 mF (1.5 mF typical) with 1% accuracy! Not too shabby for a $100 kit! (The kit sells for $99.95, the assembled, tested version is $129.95)

Putting It Together

You might expect that the kit would be extremely complicated and difficult to assemble. nothing could be further from the truth! The instrument uses only two ICs: a LM311 oscillator and a preprogrammed PIC16C622 microcomputer. The PIC device is the heart of the device, it does all of the computations and also controls the LCD display.

Most of the parts mount on the main board, and as you can see there aren't many needed to do the job. If you've assembled other PC-board styled kits, the AADE L/C Meter IIB shouldn't be much of a challenge. The manual is available for viewing on-line at http://www.aade.com/lcm2binst/LC2Binst.htm.

The meter is housed in an inexpensive machined plastic case; not the prettiest box, but entirely adequate. If there is one shortcoming to the design, it is the internal 9-volt transistor battery that powers the self-contained meter. Forget to turn it off after use, and you will find a dead battery the next time you go to use it. There is no power-on indication, you have to remember to switch it off when finished with the measurement.

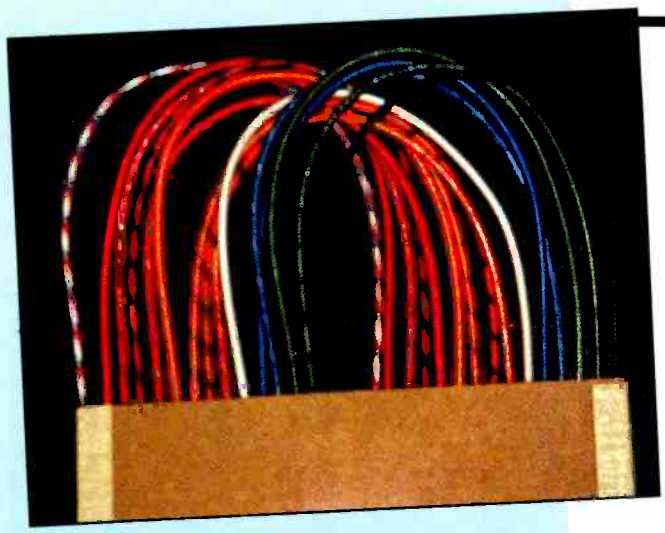
Using The Meter

The manual states that parts must be measured out of circuit. This is true, but for our needs at least one end of the component can be left in circuit without much problem. For example, when measuring a variable tuning capacitor in a receiver, I just lift the connections to the stator plates, leaving the frame in place as wired. When hooking up the meter, I am careful to connect the meter jack that is shown common to the ground in the meter schematic to the frame side of the capacitor, with the lead from jack that goes to LM311 timing circuit connected to the stator side. Another great feature is the ability to zero out the stray values of capacitance or inductance from using three or four inch jumper leads to reach the component terminals.

A Dandy Wire Assortment!

Reader Bob Ryan wrote to share this information with our readers: "Hello Peter, Enclosed is a free sampler of wire for you. This wire is offered by Fair Radio, and is really good! It's clean, fresh and of recent manufacture. The cotton jacket is tightly woven and handles well, and is sealed with a good smelling varnish. The wire strips easily and neatly! Cheers, Bob!"

Visiting the Fair Radio website (http://www.fairradio.com/) garnered some more details when we searched for



Reader Bob Ryan was kind enough to make up and send us this colorful sampler illustrating the 15 different cloth-covered hookup wire styles being offered by Fair Radio Sales.

the WCC-22 part number: "#22 cloth covered stranded hookup wire. Color choices: red, red/black, red/green, red/white, orange, orange/black, orange/green, orange/red, blue, blue/white, blue/black, green, green/black, eggshell, white/red/blue, black. Please specify. #WCC-22, $12/100ft, $48/500ft, $88/1000ft."

Bob is correct. This is some of the finest looking cloth-covered wire I've seen! What is especially rare is to find a selection that goes beyond offering a few solid colors to include several with different colored tracers. Thanks, Bob!

Making Sense Of Wire Color Codes

Imagine how difficult it would be to trace signals or troubleshoot a set that used a single color hook-up wire throughout! Just like resistors and capacitors, wiring has a preferred color code scheme that most manufacturers have adhered to. We've mentioned IF transformers before. The Blue lead goes to the plate, the Red lead is for B+. The Green lead goes to the detector grid or diode, and the Black lead is the diode return. Audio transformers follow a similar convention, Red and Blue are for the B+ and Plate designations. Brown is often used for the plate start side of a center tapped primary winding. Green is the secondary grid lead, Black is grid return, and Yellow is used for the grid start on a center tapped secondary.

Power transformers get a bit more complicated. The primary leads are usually Black. If tapped the common is Black, tap is Black with a Yellow stripe, and the finish winding is Black with a Red stripe. The high-voltage secondary will use Red leads, and the center tap — if used — will be Red with a Yellow stripe. The rectifier filaments (normally five volts) use Yellow wire leads. If center-tapped, the tap lead will be Yellow with a Blue stripe. The first filament winding uses Green leads, and if it is center-taped the lead will be Green with a Yellow stripe. There can be more windings, but for most receivers what we've just mentioned will cover a vast majority of the cases.

You'll also discover many instances where the original wire colors have faded, or changed colors. Exposing fresh insulation inside of the transformer shell will usually reveal the true wire colors.

When doing replacement wiring it is usually best to follow the original scheme used by the manufacturer. When it is not possible to do so, I suggest using Red colored wiring for B+ runs, Green for filament or grid leads, Blue for plate wiring, and Black for the AC chassis wiring. That's all we have to offer this month from "Wireless Connection" shack, see you again next time!

Column Resources:

Almost All Digital Electronics, 1412 Elm St. S. E., Auburn, WA 98092. Voice 253 351-9316, FAX 253 351-9316. 9 a.m.–9 p.m. Monday through Friday and most weekends. E-mail: neil@aade.com. Website: http://www.aade.com.

Fair Radio, 1016 East Eureka, P.O. Box 1105, Lima, OH 45802. Voice 419 227-6573, 419 223-2196, FAX 419 227-1313. 9:00 to 5:30 EST, Monday through Friday. Latest catalog is WS-02. Website: http://www.fairradio.com. ■

Restoration Tips!

One of the worst problems, besides a missing coil, is a stuck tuning slug! Using worn, damaged, or the incorrect tool will often cause the brittle cores (made of ferrite or powdered iron material) to split or splinter, and become jammed. For hex drive cores, always use a new plastic hex tool! That old favorite of yours may have developed rounded corners, which will eventually over-stress a core causing it to split or shatter. Ditto for slot-type slugs. Use the recommended tool, not an improvised screwdriver! If cores seem to be rather stiff, don't continue alignment or they will jam! You can lubricate cores with talcum power — the powder will reduce friction, lessening the likelihood of the breaking or jamming. A damaged slot-type core can often be removed and reversed in the core to reveal a non-damaged driving slot.

radio resources

radio tips and solutions to maximize your hobby enjoyment

by Gordon West, WB6NOA

Lost Your Whip? We Know Why!

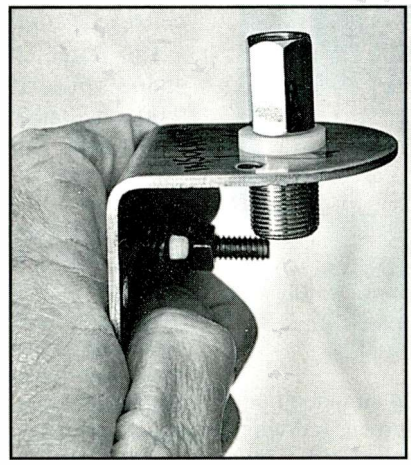
The connector that joins your coax cable PL-259 to your favorite CB, ham, or scanner antenna with 3/8 x 24 threads is nicknamed SO-239 Stud. The bottom of this whip adaptor is threaded to receive the common CB, ham, or scanner PL-259 connector. Sticking out of this adaptor is a 3/8 x 24 threaded stud, usually fitting with a screw-on double female adaptor so your whip with 3/8 x 24 threads simply screws into the female side of the stud. There is also a little nylon washer that keeps the entire adaptor centered in your mount's hole to keep the hot part of the adaptor isolated from your mount.

Your mount could be an aluminum or stainless steel L-bracket. The L-bracket is a favorite because it can hang onto boat rails, truck mirrors, RV aluminum sides, or be mast mounted.

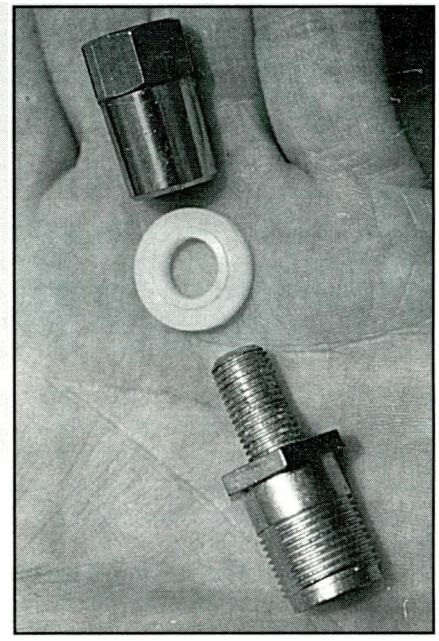
Or maybe this assembly is found on your trusty vice-grip mirror mount, or your quick-release mirror mount, or a flat bumper mount, or right-angle mirror mount, or just about anything else that you see down at the ham store, CB shop, or in big boxes out at the flea market.

The mount itself is fine. Sailors prefer the stainless steel mount over aluminum. For a time there was one prominent manufacturer that sold the stainless steel mount, but with regular metal nuts and bolts that could quickly rust. There was another manufacturer that sold this entire assembly as *All Stainless Steel*, but it turns out the stud was actually regular metal, and quickly corroded, with the rust shorting out down under the nylon spacer. Just take a magnet to the mount, and you'll find out what is stainless, non-magnetic, and what will rust — highly magnetic.

The failure of this arrangement and the loss of your expensive high-frequency or CB whip is not occurring because of mount failure. The problem is within that little adaptor that converts coax cable connection over to the threaded stud with the female-to-female threaded receiver to accept your 3/8 x 24 threaded whip. The loss of whips has been documented by our own Radio School students aboard boats and in RVs for years, but it wasn't until recently I began to launch an investigation as to exactly what was happening. I just figured the whip was vibrating loose, and slowly walking out of the threads, and ultimately dropping in the drink or going splat on the highway.



The popular L-bracket with the stud-to-SO239 adaptor.

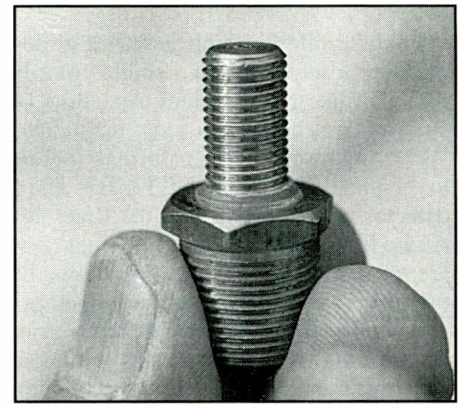


This is the way the adaptor is disassembled..

This problem hit home during some antenna testing on big-coil, high-frequency whips here in Southern California. We were judging different whips for their radiation pattern, wind loading, and radiation angle. Our test equipment was exotic field-strength meters from high-frequency whip shoot-out judge Jesse Touhy, W6KKT, with Dale, K6UA, a well-respected high-frequency antenna range expert, with American Radio Relay League observer, Art Goddard, W6XD, the new Southwestern Division Director. Goddard himself is an active high-frequency mobile ham operator, and looked on as we put competing high-frequency whips onto our L-bracket bumper mount, and drove them around the course.

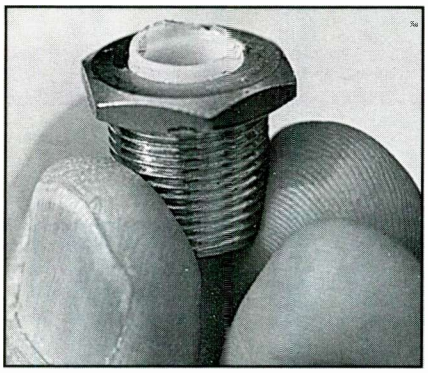
It Just Flew Off

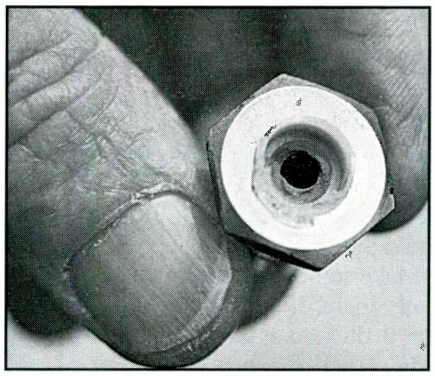
One minute the whip is on, and the next minute, I see it fly off and roll down an embankment. If I didn't actually witness it breaking off from the mount, I would have never figured out where it disappeared! At last, I could closely inspect the failure point, originally thinking that it's probably the entire SO-239 stud assembly simply pulling out from the heavy-duty stainless steel L-bracket. Nope!



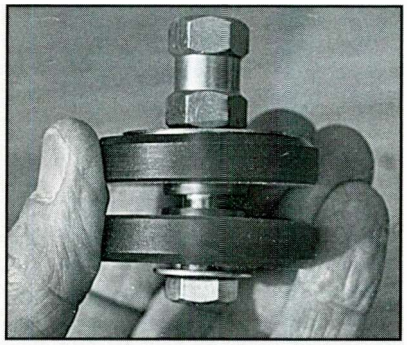
Close-up of the stud-to-SO239 adaptor.

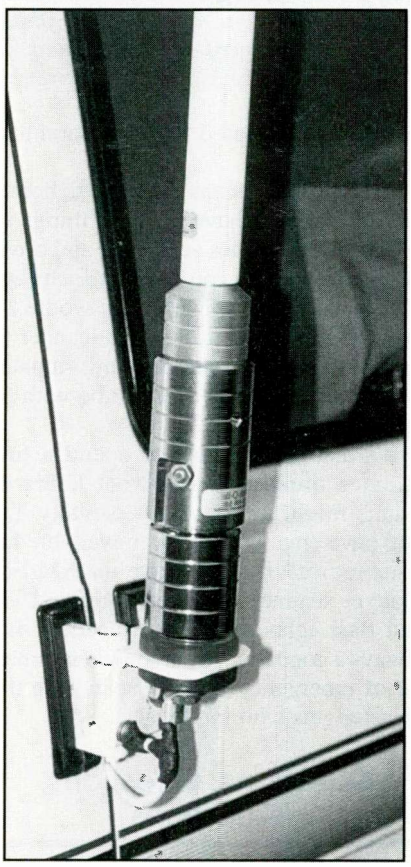
What pulled out was the 3/8 x 24 stud that was part of the SO-239 stud assembly. Close examination reveals the pro-





The stud breaks out of the base. Actually, it pulls out from the base!





Here is the best way to keep your whip on the mount.

truding stub as part of your mount is only held in position by compression — no internal threads. A little bit of plastic keeps the water out. That's it!

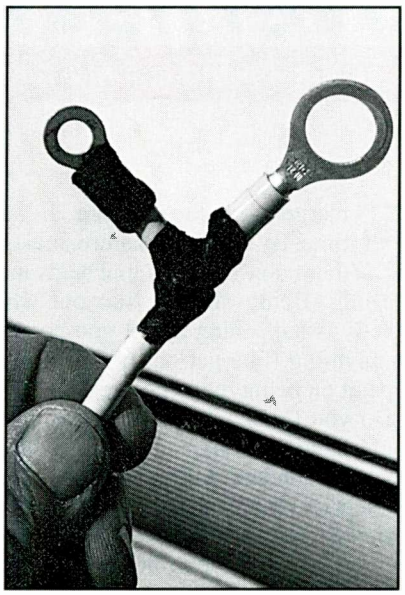
When I got home, I went to my parts bin, and found several different brass and otherwise SO-239 stud assemblies with a little plastic or nylon washer. I screwed on a whip, gave it a major yank, and guess what? Each and every one pulled out from the lower threaded section.

Nothing is *breaking* — it's simply a compression fit. Big antennas will work the plastic loose, and out pops the smooth tubular section simply COMPRESSED into the bottom of the SO-239. I was amazed manufacturers of this little widget would continue to recommend it even for some rather large, mobile, co-phased, big-coil, CB antenna systems.

The Answer!

If you have a big whip on any kind of mount using the SO-239 stud failing adaptor, be prepared for losing that whip this winter or spring. After about six months of use, the little plastic begins to break down inside the adaptor, and the whip pulls the stud out at driving speeds.

The solution is a new mount with a slightly larger hole (5/8) and an aircraft-quality threaded stud and a quality insulator to keep the center of the stud from contacting the grounded side of the edge of the hole. I have had good success with quality "half-egg" mounts characterized by a gray or black big plastic housing with a 3/8 x 24 receiver, and the bottom section the SO-239 coax cable plug receiver. I suggest you buy it already attached to a suitable mount, and this way you won't need to worry about the right size hold or the necessary nylon or plastic



Cover all exposed wires with Coax Seal™.

washer to keep the center from grounding out.

The big ham antenna manufacturers all recommend a sturdy L-bracket, with custom-made high-voltage insulators and aircraft 3/8 x 24 threads. Attached to the bottom is a well-protected coaxial cable pigtail with lugs. I recommend Coax Seal™ from Universal Radio, available at most CB and ham radio stores, plus mail order from ham stores. Apply this goop everywhere after you have made up your coax cable assembly. Anytime you get water inside the braid of coax cable, your system will surely degrade. Keep the water out!

The manufacturer of the popular ham radio Hi-Q antennas, many times seen with a capacity hat, makes up a custom base and insulator system, with 3/8 x 24 threads and a threaded receiver (www.hiqantennas.com, phone 909-674-4862). You will need to describe what type of whip antenna you plan to mount, and Charlie at Hi-Q will come up with the right base assembly. You should check out his HF ham major-coil whips, too, manual and motorized.

So go outside and check your mobile antenna that may be held on with one of these soon-to-fail SO-239 stud assemblies. Don't lose your whip or jeopardize drivers behind you by relying on this "weak point" to keep that big mobile antenna in place at highway speeds. ■

overheard

by Ken Reiss, <armadillo1@aol.com>

strategies and techniques to keep YOU informed

Emergency Scanning

Emergencies can happen at any time. By their very nature, most of them don't give us much advance warning. Being able to find out what exactly is happening and if you need to do anything (like get out of there!) can depend on being ready beforehand.

Do you know what type of incidents could happen in your area? Most of us have the standard police, fire, and medical services frequencies plugged into our scanners most of the time. And we get comfortable that we're hearing most of what's happening around us — most of the time we probably are. However emergencies can take you quite by surprise. Have you really looked around? What do you really monitor? What's really in your neighborhood?

Get a map and find yourself on it. Well, find your location at least. Draw a circle that represents a one-mile radius. Then another at two miles, five miles and then perhaps an outline that represents the range of things that you usually listen to. This one probably won't be a circle, as it will have to follow political and geographic boundaries that limit your reception range.

Many of us listen to things for interest or entertainment value. I have one of the local malls plugged in because they come up with the darndest stuff sometimes, and because they're easy to listen to. However, there are police and fire departments between here and there that I don't listen to all the time because not much happens. But I could!

Depending on where you live, and how the surrounding area is organized, you might be able to cover almost all of the agencies you want to hear by using a few channels. If you're in a metro area that's all served by the same department it's not too hard. If you're in an area where jurisdiction is divided amongst many municipalities, or shared between city or county and state units, it might be a bit more difficult.

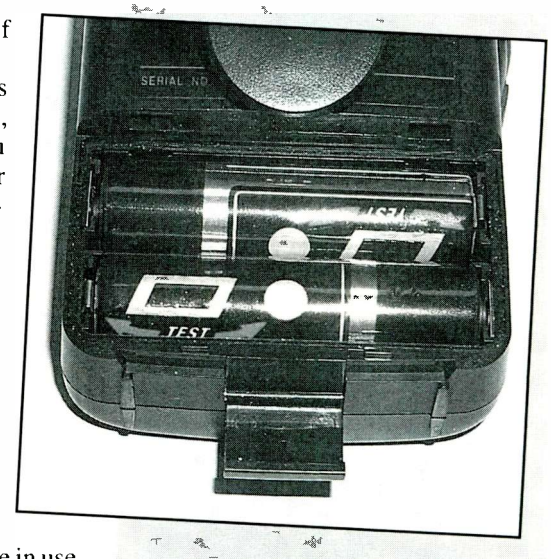
Now that we're aware of just what we are listening to on a regular basis, what about the emergency? Take a walk around that one-mile area that you drew earlier. (It's only a mile, and you don't have to do it all at once.) A bicycle and a tape recorder work well for this too, if you'd prefer.

Make some notes about what's really there. If you start looking, you'll find some things that you didn't realize were there. For instance, in my day to day travels, I pass over one set of railroad tracks. I know they are there because I've seen them, but the road has an overpass, and so I don't pay much attention to them. It turns out that these particular tracks aren't even in use any longer so it's no big deal. But the other direction, and much closer as the crow flies to my house, is another set of tracks that are at road level and are in use. I don't go that way, so I don't think much about them. But something could happen there, quite easily.

Make a list of what's around. Railroad tracks, corporate office parks, manufacturing facilities, electrical and utility items —anything that's a possible problem. You'll be surprised at what you find. You might also want to do a bit of a drive, or at least take a good look at the map to see what kind of large facilities are within your normal scanning area.

Take your list and sit down the next time you have some spare time, or after you get back from your walk, and see what's there. It's kind of a fun exercise for a rainy day to do some "what if" planning. What might happen within a mile or two of your house that could impact you and your family? Is there any type of accident or breakdown that could happen that might be of concern? What about a railroad derailment? Some chemicals can be toxic for miles. Even if the evacuation order never comes, wouldn't you like to have a heads up on that decision yourself? Better safe than sorry.

Getting detailed information on the types of chemicals and other materials used in manufacturing facilities near you can be difficult at best. Depending on the company, you might be able to do some guessing. You might also be able to get friendly with someone on the local fire department and see if they would give you some insight into the types of emergencies they're prepared for in relation to a large facility.



One major advantage of handheld receivers with AA batteries is how easy they are to replace if you can't get to a charger, or the charger doesn't have power for several days. Make sure you have backup power available for lights, radios, and anything else you might need in a severe storm.

If the event happens too close to home, you're likely to have a lot of things to worry about besides scanning, and obviously that's what you need to focus on. My sincere wish for all of us would be that we never need to use the scanner to listen to a large disaster, but unfortunately, that kind of luck may not be with us all the time.

It's also worthwhile to spend a few minutes thinking about what kinds of events might affect you personally. Do you have emergency power available for your radios? Do you have an AM/FM radio or scanner, or battery-operated TV and flashlights available if needed? It's always a good idea to put together a small kit of emergency items just in case the disaster gets a bit too local.

Questions, Questions, Questions

With all this information, you're now ready to play the "what if" game. What kinds of agencies would be likely to

In a major accident or other incident, you might hear emergency medical evacuations happening. These flights will show up on the standard air traffic control frequencies for the area they're in, if any are applicable, but the real communications takes place on the fire or EMS frequencies.

respond to a train accident? A traffic accident? A major residential or commercial fire? A chemical spill? An explosion? It's a sad commentary on the state of the world, but we certainly should also spend some time thinking about what might happen if terrorist activity happens in your area. What might be targets?

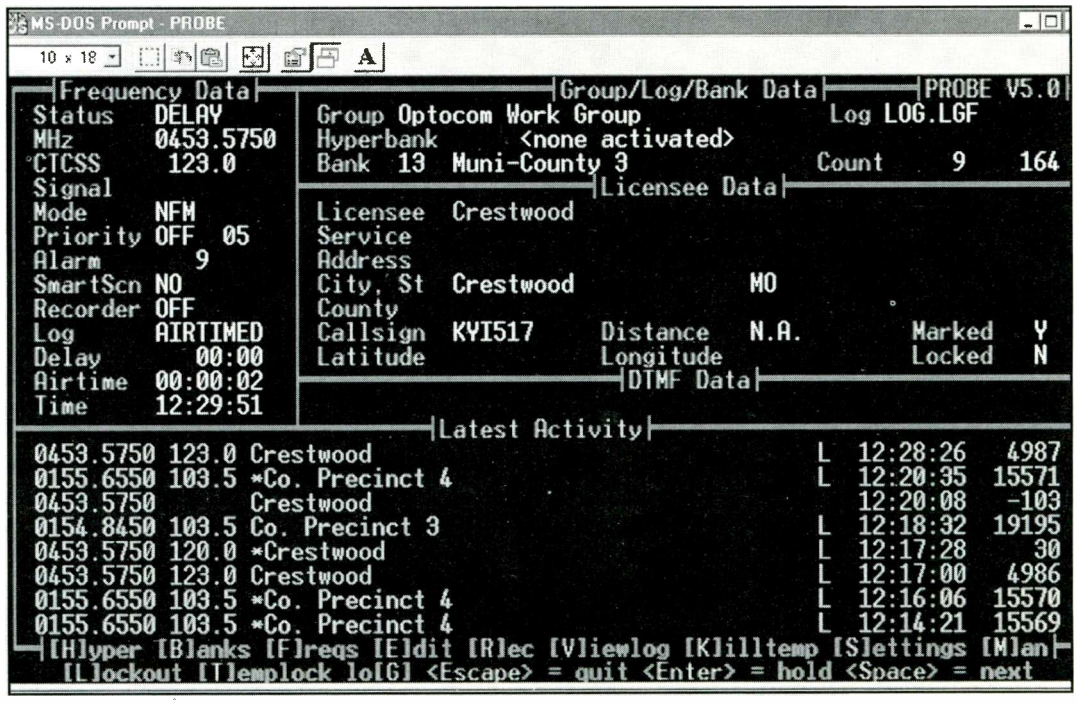
Pick an event and see if you can come up with a "monitoring plan" for what might happen. When things do happen, you won't have time to research frequencies and think about what might be where. Reprogramming your radio can be a daunting enough challenge. Here is one place where computer-controlled systems really come into play, as it's very easy to have a programming set all ready to go. When you get wind that something is happening, hit the buttons and go. If not, you'll probably want to create some kind of filing system for such events. Hopefully, it will never be needed, but if it does, it's much better to be ready beforehand.

Once you've picked the event you're going to work on think about what frequencies might be used. Does your local fire department depend on outside agencies for backup in large emergencies? What about their frequencies? Where would those people come from? Does you fire department have a hazardous materials (HAZMAT) team? Do they operate on the normal fire channels or do they have their own? Are there any mutual aid or inter-department frequencies that might be involved?

How about law enforcement? If it's an accident of some type, they may well be the first called. Do they share jurisdiction with other agencies? What about a major traffic accident on an interstate highway? Would the agencies that respond on an interstate accident be different than any other accident? In my area the answer can be yes, depending on which highway section the accident happens to fall in.

What about medical services? Would they be involved in this type of incident? What frequencies would they be dispatched on? What frequencies will they report to the hospital on as they're making their way in? Does your local hospital support trauma cases? Where do those cases have to go? Is there a life flight system or other type of emergency evacuation procedure in use in those types of events? Could it keep up? Who might come in to help from nearby areas?

How about utility companies? In almost any type of event involving a building, the utility companies are eventually called to shut off service and help prevent a big disaster from becoming bigger. Often times, one can get much more detailed information about what's happening on these "back channels" than you will on the main channels for the event. Once the fire department arrives on the scene, they're so close they may just be yelling messages



A computer-control application can allow you to have pre-programmed frequencies and banks all ready to go for your "what if plan." Many computer-assist and computer-control applications are available for today's popular radios with a computer connection. Check with the manufacturer of your radio to see what's available.

back and forth. Police are likely to use cell phones to notify supervisors and other command officers that may need to know what's going on. However, the utility emergency crews need to know exactly what they're being called in to do. The dispatcher will often relay that information by radio as the crew makes its way to the scene. This way, the crew will know what to expect, and what equipment they will need once they get there.

If the event is large enough, you might also eventually begin to get some traffic on media frequencies. Unfortunately, much of this traffic is moving to cell phones and other business systems as it's more cost effective for them, so the usefulness of media frequencies may be limited. They also usually only show up on large events, and it is often late in the game before they arrive.

Weather Emergencies

Severe weather is something that affects almost all of us here in North America, and it can affect a wide area at once. It's also about the only kind of emergency scanning that we get any notice before the event actually happens. It is also likely that things related to severe weather events are frequencies that you won't be interested in scanning on a day-to-day basis.

Of course, the local police, fire, and medical services will be the first responders on any severe weather that causes injuries. Tornadoes, hurricanes, severe thunderstorms, and lightning can all cause widespread damage and injury, or can cause severe damage in a very local area. You'll probably hear about these events as they happen just by listening to your normal stuff. After the event, however, depending on what happens many emergency plans may go into effect and cause the frequencies in use to change.

A lot of what's interesting in severe weather is boring as all get out the other 364 days of the year. Here's where a scanner with lots of banks comes in handy, or even multiple scanners. A computer-controlled, or computer-programmable radio would also be convenient so you can have those seldom used but highly interesting frequencies ready at a moment's notice. At a minimum, you should have a written list of what's normally in your scanner and a frequency plan for severe weather emergencies. Note that it may take more than one if the area you're in is subject to different kinds of weather emergencies.

One of the first things to do is to think about what kinds of weather conditions are likely in your area and who would be likely to respond to that condition. If you're in a state where severe snow storms are likely, you'll need one set of agencies. If you're only likely to get tornadoes and/or hurricanes, then another set of agencies is likely to respond to these disasters.

Severe Storms

Most severe storms, hurricanes, and tornadoes occur in the early spring through late fall, but they can occur at any time. So just about the time you put the snow blower away, you could be in for more activity. It's not nearly as much fun to listen to this stuff if it's coming your way, but being well prepared is your best defense.

One of the first things you should do, if you haven't already, is to join your local Skywarn program and get trained on the types of emergencies that are likely to strike your area. One of the things that you'll learn in that training is how to keep yourself safe. Some of the rules have changed since the days of duck under your desk or follow the teacher out into the hallway.

If you're in an area that is prone to tornados in particular, there is a great need for volunteer spotters. Radar has come a long way in identifying likely areas for

tornados to occur, but only a trained spotter can tell for sure if there's actually one there, and if it's in the air putting on a fascinating, but mostly harmless display, or if it is in contact with the ground destroying almost everything in its path.

Ham radio is the primary communications method for a lot of Skywarn activities, although not in all areas. You should try to find out what's in use in your area, and what frequencies it operates on. Put those in your scanner and lock them out until you need them. Unless you're interested in ham radio, you'll find the constant day-to-day activity of the repeaters ties up your scanner so you miss the good stuff.

In the St. Louis area, and a couple of other locations that I have lived in the past and am familiar with, once a severe storm watch or warning is issued, the Skywarn program kicks into action. Policies on how and when the network is activated and what activities go with what level of watch or warning varies, but you can bet that someone will be monitoring the situation. As conditions worsen, these volunteer networks spring into action. They are often the best source of accurate and up-to-date weather and storm information.

You'll also want to listen to police and fire channels in these events as well. The police are likely to be primary weather observers and are positioned all over town. Anything out of the ordinary will be reported quickly.

Once the storm has struck, police and fire services will be pressed into action quickly. Medical emergencies will be their first priority followed closely by fire control and rescue operations. There may also be a need to set up trauma centers or patrol areas to keep visitors or looters from a severely damaged area. In severe storms, outside assistance may be brought in, however if the damage is widespread, other communities may not be able to assist. It can take some time to mobilize federal disaster teams and National Guard units and get them to the afflicted areas. Local agencies attempting to cope with the situation and assess the need for outside assistance can be nothing short of pandemonium. By joining your local Skywarn or emergency services volunteers, you'll also be more likely to know where you can volunteer to help in a meaningful way if you're lucky enough to be unaffected by the disaster.

The utility companies will also be busy in these areas. Once again, wires down and power problems will be their priority depending on how well they can travel to the affected areas. You may need those batteries you didn't use for the snowstorm if one of these big disasters hits near you.

Frankly, I'll take dull and boring traffic stops any day compared to the destruction that one of these type storms can ravage in such a short time. I hope that none of us has anything to report at the end of the 2002 storm season, but being prepared is your best plan in case something strikes near you.

Frequency Of The Month

This month, our frequency is **157.620**. Let me know what you hear, or don't hear, via E-mail at armadillo1@aol.com, or traditional methods at Ken Reiss, 9051 Watson Rd. #309, St. Louis, MO 63126. Be sure to mark the frequency on the envelope or E-mail subject so it gets entered for our one year subscription quarterly drawing!

Your Input Needed

While you're sending in your notes for this month's frequency, let me know what you're interested in seeing in future issues of "Overheard," or *Popular Communications* for that matter! Or send along your questions! You can use either of the addresses listed above! Until next month, Good Listening! ■

v.i.p. spotlight

Congratulations To Dan Blackburn Of Michigan!

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

Each month, we'll select one entry and publish it here. Submit your entry only once; we'll keep it on file. All submissions become the property of *Popular Communications*, and none will be acknowledged or returned. Entries will be selected taking into consideration the story they relate, and if it is especially interesting, unusual, or even humorous. We reserve the right to edit all submitted material for length, 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: "V.I.P. Spotlight," *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. Please print your return address on the envelope if using the postal mail system. Not doing so will delay your submission being processed. If you're E-mailing photos, please send them in a separate E-mail with your name in the "subject" line.

Our May Winner: Dan Blackburn Of Saginaw, Michigan

Dan, a longtime radio enthusiast says, "My interest in radio dates to the 1960's, when one evening my father decided to tune his new Wards shortwave radio. The image of a wire strung from our screen door to the radio's whip antenna, my father carefully listening for news about Vietnam — my brother was then serving duty there — has never left my memory.

I gained much radio experience during the CB craze of the mid-'70s, and acquired my 'first' receiver, a Realistic DX-160. With this rig, I bagged my most-prized QSL, from Uganda during Idi Amin's regime.

After an absence of 17 years, I've returned to hobby radio with a vengeance! I now own a Uniden BC895XLT and two Realistic PRO-2050 scanners, an ICOM R-75 and five other SWL rigs, including Kenwood R-2000 and R-600, Drake SW-2, Yaesu FRG-7 and a Realistic DX-398 portable. I still have my late father's Airline portable, as well! I find *Popular Communications* an excellent resource for my interests. Thanks for a great publication!" ■

Dan Blackburn sits proudly with his radio gear.

books calendars videos

The Mobile DXer

HOT ITEM!

by Dave Mangels, AC6WO

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Getting Started in Amateur Satellites ..Order No. VSAT
Getting Started in Contesting .....Order No. VCON

Building and Using Baluns and Ununs

by Jerry Sevick, W2FMI

This volume is the source for the latest information and designs on transmission line transformer theory. Discover new applications for dipoles, yagis, log periodics, beverages, antenna tuners, and countless other examples.

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33 Simple Weekend Projects

by Dave Ingram, K4TWJ

Do-it-yourself electronics projects from the most basic to the fairly sophisticated. You'll find: station accessories for VHF FMing, working OSCAR satellites, fun on HF, trying CW, building simple antennas, even a complete working HF station you can build for $100. Also includes practical tips and techniques on how to create your own electronic projects.

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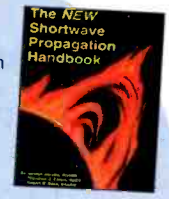
The NEW Shortwave Propagation Handbook

by W3ASK, N4XX & K6GKU



A comprehensive source of HF propagation principles, sunspots, ionospheric predictions, with photography, charts and tables galore!

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by Bob Haviland, W4MB
Second Printing

An authoritative book on the design, construction, characteristics and applications of quad antennas.

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Inexpensive, practical antenna projects that work! Guides you through the building of wire, loop, Yagi and vertical antennas.

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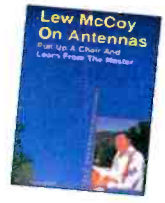
by Lew McCoy, W1ICP



Unlike many technical publications, Lew prsents his invaluable antenna information in a casual, non-intimidating way for anyone!

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washington beat

Capitol Hill and FCC actions affecting communications

by Laura Quarantiello <lauraq@cts.com>

Satellite Radio Battles Wireless Companies

Wireless companies are complaining to the FCC that the new satellite radio services may cause interference with pagers and cell phones. At issue are land-based repeaters which fill in gaps in satellite radio service caused by tunnels or tall buildings. **XM Satellite Radio** and **Sirius Satellite Radio** currently have temporary FCC approval to use repeaters up to 40,000 watts. XM has said that if they cause interference there is a "simple and inexpensive technology available to fix the problem." Regardless, wireless companies are fearful of the effect on their current and future systems and have asked the FCC to limit repeater power to 2,000 watts. The Commission has asked for comments on a proposal to impose an **18-month freeze** on the deployment of additional repeaters, which XM said in its filing "would be devastating to the industry."

Bush Budget Nails Spectrum-Hogging TV Stations

Under President Bush's proposed budget plan, commercial TV stations that failed to vacate the analog broadcast spectrum by 2007 would end up paying a share of a $500 million fee. The budget plan also calls for delaying auctions of spectrum in the channel 60–69 range to 2004, and in the 52–59 range to 2006.

Cell Phone Bill Action

State lawmakers in **California** shot down a measure that would have made it illegal to drive while using a handheld cellular telephone. As it did last year, the bill fell one vote short of the 10 votes needed to move it out of the Assembly Transportation Committee. The bill, sponsored by Assemblyman Joe Simitian (D-Palo Alto) would have made it against the law for drivers to talk on their cell phones without a hands-free device. Simitian said he felt the bill failed due to intense lobbying from wireless companies. "All of them tell their customers not to drive a car and use their phone without a hands-free device, yet they have been absolutely fierce in their opposition" to regulation, Simitian said. This issue isn't going away: Simitian plans introduce a new version of the measure soon.

Meanwhile, the **City of Shelby, Mississippi**, is considering an ordinance making it unlawful to drive while talking on a cellular telephone — even a hands-free phone. The law, drafted by City Attorney Jeffery Levingston, also suggests imposing a fine for those charged of not less than $100 and not more than $500. Some city aldermen feel the monetary fine is too high and have asked for reductions to be included in the final draft. The city will consider the ordinance and any changes during its next monthly meeting.

In **Florida**, Republican Jim Sebesta has sponsored of Senate bill directing state lawmakers to decide on cell phone use by drivers by the year 2003. Sebesta said that he introduced the measure out of concern that each of the more than 400 municipalities in Florida could draft unique ordinances.

In late-breaking news, lawmakers in **Arizona** rejected a bill that would have restricted driver's use of handheld cellular telephones. The measure in the Senate Transportation Committee failed by 4-3 vote.

FDA Approves Wireless Heart Monitor

Just when we though cellular phones were nothing but a 21st century annoyance comes word that the U.S. Food and Drug Administration has approved a wireless heart monitor that sends data to doctors via cellular telephone. The BIOTRONIK Home Monitoring System allows physicians to check on BIOTRONIK pacemaker patients between office visits. The system records data about the patient's heart and pacemaker function and sends the information via a small transmitter in the pacemaker to BIOTRONIK's Service Center via a cell phone. Information is commonly sent once per day, but the unit can be programmed to send data when symptoms such as dizziness and fainting are present. The Service Center analyzes the data and forwards it to the patient's doctor by FAX. Monitoring can be performed any time and can take place anywhere the patient goes within the area served by the cell phone provider. The system is available to any BIOTRONIK pacemaker patient.

FCC Investigates Cell Phone/ Hearing Aid Interference

If you're a hearing aid wearer and are experiencing strange clicks, pings, and buzzing, it may not be all in your head. The FCC is investigating claims of interference between hearing aids and some cellular telephones, specifically digital phones. Reports have come from hearing aid wearers using cell phones and those in the vicinity of cell phones.

SECDEF Appoints Spectrum Assistant

Secretary of Defense Donald Rumsfeld has appointed Steven Price, former president and chief executive officer of LiveWire, as Deputy Assistant Secretary of Defense for Spectrum and Command, Control, and Communications policy. The appointment marks the first time spectrum issues have rose to the Deputy Assistant Secretary of Defense level.

FCC Organizational Changes

The FCC announced changes to their organization recently, reporting that the Wireless Telecommunications Bureau will

now handle instructional television fixed services and multipoint distribution service matters that were formerly handled by the Mass Media Bureau. They have also created the Wireline Competition Bureau to oversee policies affecting telecommunications carriers.

Some Guys Never Learn

Jack Gerritsen, convicted of interfering with police communications in 2000, has been re-arrested for violating his parole. Gerritsen, who was ordered not to transmit on radio as a condition of his parole, was caught doing just that: transmitting on several amateur radio repeaters in the Southern California area over the course of several weeks. At his arraignment hearing, Gerritsen was ordered held without bail pending a sentencing hearing. It is expected that he will be returned to prison for the remainder of his sentence, which can be up to four years.

Felon Wants A New License

The FCC has initiated a hearing proceeding before an Administrative Law Judge to determine whether or not **Herbert L. Schoenbohm** should be granted a new Amateur Radio Service Station License and Amateur Radio Service Operator License. The hearing affords the Commission an opportunity determine whether Schoenbohm, a convicted felon who the Commission previously deemed unqualified to hold such licenses, is currently qualified to do so. Schoenbohm's previous Amateur license, KV4FZ, was not renewed after it was determined following a 1995 hearing before an Administrative Law judge, that "his previous criminal behavior, misrepresentation, and lack of candor warranted denial of his renewal application." Just to clear things up, Schoenbohm is a convicted felon and was found to have misrepresented facts and lacked candor in his testimony in that hearing. Big surprise. Now Schoenbohm has filed an application for licensing and the Commission has sent the issue to a hearing, saying that "there are no facts now before us that would support a finding of rehabilitation." Good luck, Herbert. ■

Pop'Comm Survey-May 2002

1. The two items I read FIRST each month in Pop'Comm are:

Global Information Guide	1
Tuning In	2
World Band Tuning Tips	3
Radio Resources	4
Wireless Connection	5
Clandestine Communiqué	6
Loose Connection	7
Overheard	8
Plane Sense	9
Utility Radio Review	10
Ham Discoveries	11
Computer Assisted Radio Monitoring	12
Space Monitor	13
Broadcast Technology	14
On-The-Go Radio	15
That month's articles (not regular column)	16
Washington Beat	17
Power-Up	18
VIP Spotlight	19
Advertising	20
Reader's Speak Out	21
Reader's Market	22
Pirate & Alternative Radio	23

2. I'm an active ham and plan on renewing my license when it expires.

Yes	24
No	25
Not sure	26

3. I'm a licensed GMRS user.

Yes	27
No	28

4. I use GMRS on a regular basis.

Yes	29
No	30

5. I'd use GMRS if it were an unlicensed service.

Yes	31
No	32

6. GMRS doesn't excite me because (mark all that are appropriate):

Price of the transceivers	33
Range of the service	34
License cost	35
Licensing process	36
I don't know about GMRS	37
FRS users are on some of those frequencies	38
I'm a ham and don't need GMRS	39
CB works for me	40
FRS works for me	41

by Ed Muro, K2EPM

The SGC SG-2020 With ADSP: A User's Report

The buzz around the amateur radio community has been revolving around the HF bands. I am sure this is clearly a result of license restructuring which has made it a lot easier getting on the HF bands. All of the marketing departments at the various manufacturers have been working overtime to get you to buy their products. At the last Dayton Hamvention the hot item was a self-contained backpack QRP HF Yaesu radio stocked with a lot of bells and whistles.

I had originally gone to Dayton hell bent on bringing back one of these 817s. That all changed the moment I walked into the SGC display area and laid my eyes on the SG-2020 with Adaptive Digital Signal Processing.

Before we take off on this HF adventure, let me give you a little information about my background. I have been an avid radio monitoring hobbyist for over 20 years and a licensed amateur radio operator since 1997. While I posses a bachelor's degree in television and radio production I have fed myself by earning a living in the automotive industry. While this is my first product review for *Popular Communications*, my name may be familiar to you from work that has appeared in other publications or my involvement in various Internet reflectors. In other publications I have made the following statement, and I will say it again: I am not a technological wizard, but I am an appliance user. What is important to me when evaluating a piece of equipment are the things that I think will be important to the average Joe on the street. Does the equipment operate as advertised? Is it easy to learn how to operate the equipment? Does it provide a good value for the dollars spent?

Who Is SGC?

For about 30 years SGC has been developing, manufacturing, and selling high-performance single-sideband communications equipment to the marine, military, aviation, and industrial markets. According to their product literature, their equipment is currently being used throughout the world by the United Nations for inter-communications in developing countries. Many competitive racing vessels, as well as fishing boats, tugs, and commercial craft are equipped with SGC equipment. In fact, they introduced the first mass produced HF SSB rig for the marine industry. It is interesting to note that all SGC equipment in manufactured right here in the good ol' US of A.

SG-2020 Features

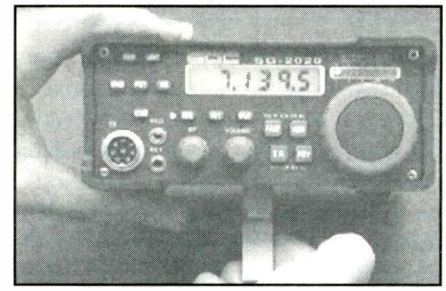
The SG-2020 is not just another amateur radio product. It is a commercial-grade transceiver designed for a whole gamut of HF uses including amateur radio.

While not certified by the FCC and FAA as type accepted for these uses, the SG-2020 was designed for aviation use. The radio fits snugly in the standard aviation panel with a width less than 6 inches. The unit's low-power consumption will allow it to work when other electronic gear if the airplane may fail. In addition to aviation use, the SG-2020 is ideal for marine and commercial use.

For our amateur radio use, the SG-2020 will fit the bill for base, mobile, or portable use. For base use, you will find a very functional fold-down foot with rubber end for furniture protection. This foot sets the SG-2020 at just the right angle for desktop usage.

There are 20 user selectable memory channels available for storing your favorite operating frequencies with the ability to scan these memories. Its operating frequency range is 10 through 160 meters, and the receive range is from 1.8 to 29.7 MHz (400 kHz to 1600 kHz with the broadcast filter bypassed.)

While the specifications state that the PEP on the radio is 20 watts, the amplifier has the stress power capability of 40 watts. Therefore, in mid band you will exceed the specified 20 watts. Low-power requirements and current consumption allow this radio to operate under conditions where others wouldn't. While a power source of 12 volts DC would be the norm, the SG-2020 will operate off any DC power source providing nine to 18 volts DC capable of providing up to five amps peak when operating the transmitter at full power. In the receive mode, a power supply with a rating of one ampere should be sufficient. In fact, I am told this unit will even receive with a power source only providing 400 mAh. It is interesting to note that the SG-2020 has an internal self-recovering five AMP fuse.



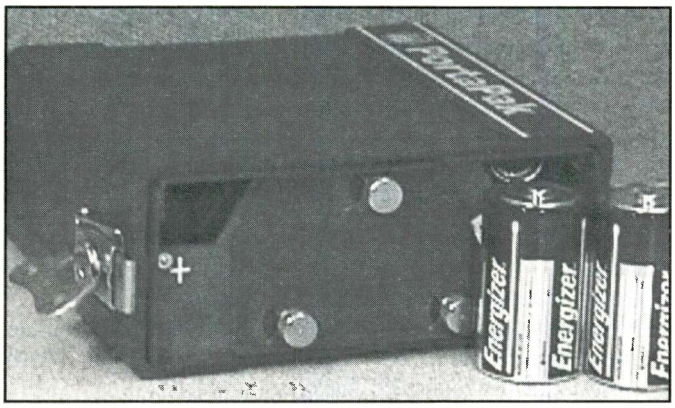
Here's a look at the compact, yet very potent, SGC SG-2020.

Other Features

Antenna Coupler — By momentarily depressing the "PBT" push button and then pressing the push-to-talk button on the MIC the CW tone to allow an external automatic antenna coupler to tune. The SG-2020 ADSP will transmit the tone as long as the MIC is depressed.

Modes — As stated earlier, phone or voice communication is only accomplished in either upper or lower side-band. If you are looking to work AM or FM, this is not the radio for you. Your favorite SSB frequencies can be stored in up to 20 memories.

OK, so maybe voice communications isn't your cup of tea. Have no fear, there is a built in iambic keyer that is adjustable from five to 60 words per minute. The bandwidth can be adjusted from 300 Hz all the way down to 100 Hz. There are facilities to operate CW with a paddle, straight key, or even by pressing the PTT switch on the MIC.



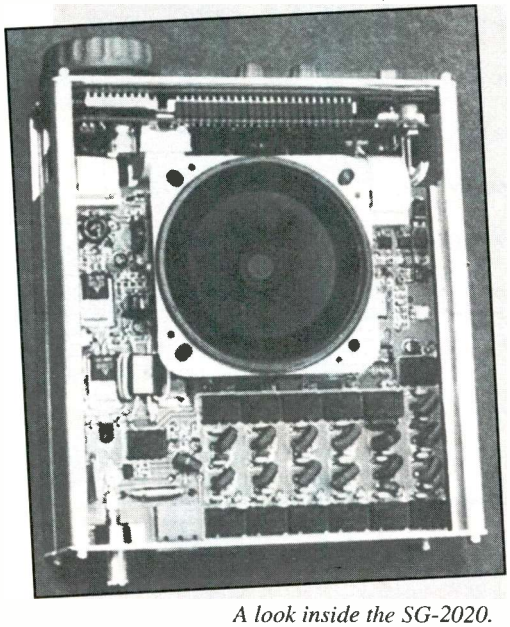
The radio can be outfitted in the field either by using your own power source or SGC's "SG-2020 Battery Pack Option" Catalog #05-33 which includes a battery container (05-37) to hold ten "D" cell batteries (batteries not included) and an adjustable carry case strap for hand or shoulder. Also, Check out SGC's new addition to it's family of accessories, a waterproof carrying case for the SGC 2020.

So, right out of the box you can be operating SSB phone or CW within minutes. But, maybe that isn't your bag either. Well, with an optional HF data modem, such as the SG-7200, you can operate many data modes such as packet, RTTY, WEFAX, PSK-31, and NAVTEX. The bandwidth is adjustable from 2.7 kHz to 100 Hz.

The SG-2020's Fit And Feel

Even before you unpack the SG-2020 you will notice that the box it comes in may be somewhat different from what you are used to seeing. No, there are no fancy promotional graphics on the box, but what you will see on the inside cover is a quick-start operating guide.

The installation and operations manual is about 90 pages of spiral-bound material printed on 8 x 11-inch paper. The print is rather large and easy to read. Information is straightforward and laid out in an easy-to-understand format.



A look inside the SG-2020.

Once you pull the radio out of the box you will most certainly notice that this is no ordinary amateur radio. It clearly looks and feels like a piece of commercial or military-grade communications equipment.

The front panel is uncluttered with a minimal number of push buttons and the display is easy to read. There is an LED bar-graph Signal Strength Meter above the tuning knob. The tuning knob is adequate considering the small size of the radio, a far superior knob compared to the knob you will find on the Yaesu FT-817. However, both myself and several my associates have agreed that there should be some type of indentation included on the knob for easier tuning capability. By holding down the FAST button while rotating the tuning know, the tuning rate will be set to one of four values; .1kHz, .5kHz, 1.9kHz, or 10kHz. The normal tuning rate is 1 KHz in 10Hz steps. While it would have been nice to have a keypad for direct entry of frequencies, it would require space on the front panel to do so.

To change from one band to another, use the memory channels. It comes pre-programmed with 20 memories that cover most ham bands. These can be changed to whatever frequency on any band that you choose.

• Note: Each button has more than one function. Various functions are accessed by the use of the command (CMD) button and various combinations of keystrokes. You are going to have to keep the operation manual handy until you learn these or better yet, type up a cheat sheet for yourself.

At only 4.4 lbs. this 2.75 inch high by 6 inch wide by 7 inches long HF box is not only perfect for vehicular installations, but it will fit nicely in various types of bags or packs for portable field use. In fact, SGC manufactures a great container that will hold 10 "D" cell batteries with an adjustable strap for hand or shoulder use. However, this option does not come cheap as it carries a hefty price of $550 — yes, that is just for the battery case! When I questioned Mathew Gary at SGC about the prices of the accessories, I was told it was due to high production and design costs as well as costs associated with low production demand.

SGC manufactures many interesting options and accessories that are worth looking at, but again, keep in mind that they come at a high price. Visit their web site at ww.sgcworld.com or call at 1-800-259-7331.

Warranty Information

The SG-2020 comes with a 90-day parts and labor warranty with an option to extend that out to three years for an additional $139.95. At $795, the MSRP on this unit falls in line with the Yaesu FT-817.

Whether you are a QRPer or just someone looking for portability, the SG-2020 will provide you with years of rock-solid enjoyment. I have used this unit for over a month now in several different locations, including the Long Island Mobile Amateur Radio Club's Field Day site. Reception is right on the money and the audio quality coming from the five-watt speaker is crisp and clearly audible. While I did have a little trouble getting through some of the field day pile-ups, on a normal day I was able to maintain QSOs worldwide. While it may not be all things to all people, this unit is has a simple learning curve, easy to operate, and solidly built. ■

SG-2020 ADSP Specifications as Claimed by the Manufacturer

General:
General Operating Modes: USB, LSB and CW
Frequency Range: 1.8-29.7 MHz–Full Frequency Coverage
Dimensions: 7.25 L x 6 W x 2.75 H (18.5cm x 15cm x 7cm)
Approximate Weight: 2.5 lbs. (1kg)

Receiver:
Pass band tuning sensitivity: Better than .3uV for 6db S/N
Intermodulation: +18dBM 3rd order intercept
Tunable A.F. bandpass: 100–2700 Hz
Total consumption in Receive: Typical 400mA

Transmitter:
Transmitter power: Adjustable from 0-20W PEP output
RF Speech Processor: VOGAD baseband processing and RF clipping
DC Voltage: 10-18 VDC
Add. Current Consumption: <150mA
Tone Rejection: Better than -57dB
Dynamic Noise Rejection: Better than -18dB
Operation for both modes: On/Off

For additional specifications, consult SG-2020 and SG-2020ADSP manuals available for download at www.sgcworld.com

Tap into *secret* Shortwave Signals

Turn mysterious signals into exciting text messages with the MFJ MultiReader™!

Plug this self-contained MFJ *MultiReader*™ into your shortwave receiver's earphone jack.

Then *watch* mysterious chirps, whistles and buzzing sounds of RTTY, ASCII, CW and AMTOR (FEC) turn into exciting text messages as they scroll across an easy-to-read LCD display.

You'll *read* interesting commercial, military, diplomatic, weather, aeronautical, maritime and amateur traffic . . .

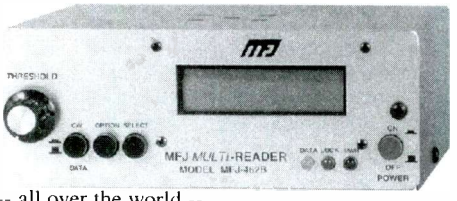
Eavesdrop on the World

Eavesdrop on the world's press agencies transmitting *unedited* late breaking news in English -- China News in Taiwan, Tanjug Press in Serbia, Iraqui News in Iraq -- all on RTTY.

Copy RTTY weather stations from Antarctica, Mali, Congo and many others. Listen to military RTTY passing traffic from Panama, Cyprus, Peru, Capetown, London and others. Listen to hams, diplomatic, research, commercial and maritime RTTY.

Listen to maritime users, diplomats and amateurs send and receive *error-free* messages using various forms of TOR (Telex-Over-Radio).

Monitor Morse code from hams, military, commercial, aeronautical, diplomatic, maritime



-- all over the world -- Australia, Russia, Japan, etc.

MFJ-462B **$179.95**

Printer Monitors 24 Hours a Day

MFJ's exclusive *TelePrinterPort*™ lets you monitor any station 24 hours a day by printing transmissions on an Epson compatible printer.

Printer cable, **MFJ-5412**, $9.95.

MFJ *MessageSaver*™

You can save several pages of text in an 8K of memory for re-reading or later review.

High Performance Modem

MFJ's high performance *PhaseLockLoop*™ modem consistently gives you solid copy -- even with weak signals buried in noise. New threshold control minimizes noise interference -- greatly improves copy on CW and other modes.

Easy to use, tune and read

It's easy to use -- just push a button to select modes and features from a menu.

It's easy to tune -- a precision tuning indicator makes tuning your receiver easy for best copy.

It's easy to read -- the 2 line 16 character LCD display with contrast adjustment is mounted on a brushed aluminum front panel for easy reading.

Copies most standard shifts and speeds. Has MFJ *AutoTrak*™ Morse code speed tracking.

Use 12 VDC or use 110 VAC with MFJ-1312B AC adapter, $14.95. 5¼Wx2½Hx5¼D inches.

No Matter What™ One Year Warranty

You get MFJ's famous one year *No Matter What*™ limited warranty. That means we will repair or replace your MFJ *MultiReader*™ (at our option) *no matter what* for one full year.

Try it for 30 Days

If you're not completely satisfied, simply return it within 30 days for a prompt and courteous refund (less shipping). Customer must retain dated proof-of-purchase direct from MFJ.

Super Active Antenna

"World Radio TV Handbook" says MFJ-1024 is a *"first-rate easy-to-operate active antenna ...quiet... excellent dynamic range... good gain... low noise... broad frequency coverage."*

Mount it outdoors away from electrical noise for maximum signal, minimum noise. Covers 50 KHz-30 MHz.

MFJ-1024 **$139.95**

Receives strong, clear signals from all over the world. 20 dB attenuator, gain control, ON LED. Switch two receivers and auxilary or active antenna. 6x3x5 inches. Remote has 54 inch whip, 50 feet coax. 3x2x4 inches. 12 VDC or 110 VAC with MFJ-1312, $14.95.

Indoor Active Antenna

MFJ-1020B **$79.95**

Rival outside long wires with this *tuned* indoor active antenna. *"World Radio TV Handbook"* says MFJ-1020B is a *"fine value... fair price... best offering to date... performs very well indeed."*

Tuned circuitry minimizes intermod, improves selectivity, reduces noise outside tuned band. Use as a preselector with external antenna. Covers 0.3-30 MHz. Tune, Band, Gain, On/Off/Bypass Controls. Detachable telescoping whip, 5x2x6 in. Use 9 volt battery, 9-18 VDC or 110 VAC with MFJ-1312, $14.95.

Compact Active Antenna

MFJ-1022 **$49.95**

Plug this *compact* MFJ all band active antenna into your receiver and you'll hear strong, clear signals from all over the world, 300 KHz-200 MHz including low, medium, shortwave and VHF bands.

Detachable 20 inch telescoping antenna. 9 volt battery or 110 VAC MFJ-1312B, $14.95. 3⅛x1¼x4 in.

Eliminate power line noise!

MFJ-1026 **$179.95**

New! ***Completely*** eliminate power line noise, lightning crashes and interference *before they get into your receiver!* Works on all modes -- SSB, AM, CW, FM, data -- and on all shortwave bands. Plugs between main external antenna and receiver. Built-in active antenna picks up power line noise and cancels undesirable noise from main antenna. Also makes excellent active antenna.

MFJ Antenna Matcher

MFJ-959B **$99.95**

Matches your antenna to your receiver so you get maximum signal and minimum loss.

Preamp with gain control boosts weak stations 10 times. 20 dB attenuator prevents overload. Select 2 antennas and 2 receivers. 1.6-30 MHz. 9x2x6 in. Use 9-18 VDC or 110 VAC with MFJ-1312, $14.95.

Dual Tunable Audio Filter

MFJ-752C **$99.95**

Two separately tunable filters let you peak desired signals and notch out interference at the same time. You can peak, notch, low or high pass signals to eliminate heterodynes and interference. Plugs between radio and speaker or phones. 10x2x6 in.

High-Gain Preselector

MFJ-1045C **$99.95**

High-gain, high-Q receiver preseletor covers 1.8-54 MHz. Boost weak signals 10 times with low noise dual gate MOSFET. Reject out-of-band signals and images with high-Q tuned circuits. Push buttons let you select 2 antennas and 2 receivers. Dual coax and phono connectors. Use 9-18 VDC or 110 VAC with MFJ-1312, $14.95.

CW, RTTY, ASCII Interface

MFJ-1214PC **$149.95**

Use your computer and radio to receive and display brilliant full color FAX news photos and incredible WeFAX weather maps. Also RTTY, ASCII and Morse code. Frequency manager lists over 900 FAX stations. Auto picture saver.

Includes interface, easy-to-use menu driven software, cables, power supply, manual and *JumpStart*™ guide. Requires 286 or better computer with VGA monitor.

High-Q Passive Preselector

MFJ-956 **$49.95**

High-Q passive LC preselector boosts your favorite stations while rejecting images, intermod and phantom signals. 1.5-30 MHz. Preselector bypass and receiver grounded positions. Tiny 2x3x4 inches.

Super Passive Preselector

MFJ-1046 **$99.95**

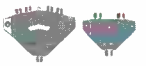
New! **Improves** any receiver! Suppresses strong out-of-band signals that cause intermod, blocking, cross modulation and phantom signals. Unique Hi-Q series tuned circuit adds super sharp front-end selectivity with excellent stopband attenuation and very low passband attenuation and very low passband loss. Air variable capacitor with vernier. 1.6-33 MHz.

Easy-Up Antennas

MFJ-38 **$16.95**

How to build and put up inexpensive, fully tested wire antennas using readily available parts that'll bring signals in like you've never heard before. Antennas from 100 KHz to 1000 MHz.

MFJ Antenna Switches



MFJ-1704 **$64.95** MFJ-1702C **$24.95**

MFJ-1704 heavy duty antenna switch lets you select 4 antennas or ground them for static and lightning protection. Unused antennas automatically grounded. Replaceable lightning surge protection. Good to 500 MHz. 60 dB isolation at 30 MHz. **MFJ-1702C** for 2 antennas.

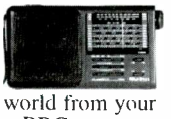
World Band Radio Kit

MFJ-8100K **$69.95** *kit*
MFJ-8100W **$89.95** *wired*

Build this regenerative shortwave receiver kit and listen to signals from all over the world with just a 10 foot wire antenna. Has RF stage, vernier reduction drive, smooth regeneration, five bands.

21 Band World Receiver

MFJ-8121 **$39.95**



MFJ's new 21 Band World Receiver lets you travel the world from your armchair! Listen to BBC news from London, live music from Paris, soccer matches from Germany and more! Covers 21 bands including FM, Medium Wave, Long Wave and Shortwave. *Sony*® integrated circuit from Japan, multicolored tuning dial, built-in telescopic antenna, permanent silkscreened world time zone, frequency charts on back panel. Carrying handle. Operates on four "AA"s. Super compact size!

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FAX: (662) 323-6551; **Add s/h**
Tech Help: (662) 323-0549

world band tuning tips

your monthly international radio map

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
0000	11985	Deutsche Welle, Germany, via Sri Lanka	RR
0000	17615	BBC relay, Thailand	
0000	15060	Family Radio/WYFR via Taiwan	unid
0000	12160	WINB, Pennsylvania	
0000	17570	Radio Netherlands, via Russia	DD
0000	21455	HCJB, Ecuador	SS/USB
0000	15375	Voz Cristiana, Chile	SS
0000	4815	Radio Difusora Londrina, Brazil	PP
0000	6115	La Voz del Llano, Colombia	SS
0030	7270	Radio Tirana, Albania	Alb
0030	11905	Sri Lanka Broadcasting Corp.	
0030	13695	Radio Thailand	
0030	6956.7	Radio La Voz del Campesino, Peru	SS
0030	11585	Kol Israel	HH
0030	7185	RTV Marocaine, Morocco	AA
0030	11675	Radio Kuwait	AA
0030	11710	Voice of the Islamic Republic of Iran	
0030	9675	RAI Int'l, Italy	II
0030	4960	Radio Federacion, Ecuador	SS
0030	9400	Radio Bulgaria	
0030	15100	China Radio Int'l	CC
0030	11600	Radio Bulgaria	
0030	7345	Radio Prague	Czech
0030	11780	Radio Nacional Amazonia	PP
0030	11835	China People's Broadcasting Station	CC
0100	3280	La Voz del Napo, Ecuador (Radio Maria pgms)	SS
0100	6797.5	Radio Ondas del Rio Mayo, Peru	SS
0100	6536	Radiodifusora Huancabamba, Peru	SS
0100	17685	Radio Japan/NHK	
0100	17685	Radio Japan/NHK	
0100	7245	Radio Dushanbe, Tajikistan	Dari
0115	9605	Vatican Radio	SS
0130	15345	Radio Nacional, Argentina	SS
0130	17790	BBC relay, Singapore	
0130	7470	Radio Denmark, via Norway	DD
0200	9765	Voice of Russia, via Vatican	
0200	9737	Radio Nacional, Paraguay	SS
0200	15575	Radio Korea Int'l, South Korea	
0200	13665	Voice of Russia	
0200	5010v	Radio Pueblo, Dominican Republic	SS
0200	17860	Radio Canada Int'l, via China	
0200	11955	BBC relay, Oman	
0230	6458.5	Armed Forces RTV, Puerto Rico	USB
0230	11620	All India Radio	Hindi
0230	5010	Radio Misiones Int'l, Honduras	SS
0230	3250	Radio Luz y Vida, Honduras	SS
0230	6175	Voice of Vietnam, via Canada	
0230	7335	Radio Austria Int'l	
0300	15425	Sri Lanka Broadcasting Corp.	
0300	11730	BBC relay, Seychelles	
0300	15310	BBC relay, Oman	
0300	11640	Far East Broadcasting Assn., Philippines	
0300	3360	La Voz de Nahuala, Guatemala	SS
0300	4052.5	Radio Verdad, Guatemala	SS
0300	11710	Voice of Korea, North Korea	
0300	15084	Voice of the Islamic Republic of Iran	Farsi
0300	7210	Radio Minsk, Belarus	
0300	4820	Radio Botswana	
0300	9475	Radio Cairo, Egypt	
0330	4950	Radio Nacional, Angola	PP
0330	9965	Voice of Armenia	SS
0330	4980	Ecos del Torbes, Venezuela	SS
0330	13675	UAE Radio, Dubai, UAE	
0330	5865v	Radio Nueva Cajamarca, Peru	SS
0330	17845	Radio Japan/NHK	RR
0330	9900	Radio Cairo, Egypt	AA
0330	3320	Radio Sondergrense, South Africa	Afkns
0400	7110	RTV Tunisienne, Tunisia	AA
0400	12080	Adventist World Radio via South Africa	unid.
0400	4930	Radio Barahona, Venezuela	SS
0400	11915	Voice of America relay, Sao Tome	unid
0400	9775	HCJB, Ecuador	RR
0400	15340	Radio New Zealand	
0400	9535	Radio Africa Int'l, via Germany	FF
0400	11910	Radio France Int'l via Gabon	
0400	6940	Radio Fana, Ethiopia	unid
0400	9885	Voice of America relay, Botswana	
0400	9925	Voice of Croatia	unid
0400	5500	Voice of Tigray Revolution, Eritrea	vern.
0430	13740	Voice of Vietnam	unid.
0430	7375	Radio Ukraine Int'l	
0430	9530	Magadan Radio, Russia	RR
0430	3270	Namibian Broadcasting Corp.	
0430	9790	Voice of the Islamic Republic of Iran	AA
0430	9730	China Radio Int'l, via French Guiana	
0430	5025	Radio Rebelde, Cuba	SS
0430	12060	Radio Voice of Hope, via Madagascar	AA

UTC	Freq.	Station/Country	Notes
0445	5955	Radio Cultural, Guatemala	SS
0500	3300	Radio Cultural, Guatemala	SS
0500	6045	Radio France International	FF
0500	6900	Turkish Meteorological Station, Turkey	TT
0530	15225	Adventist World Radio, South Africa	unid
0530	3995	Deutsche Welle, Germany	GG
0530	3975	Radio Budapest, Hungary	Croatian
0600	4960	Voice of America relay, Sao Tome	
0600	7255	Voice of Nigeria	
0600	4770	Radio Nigeria, Kaduna	
0600	4760	ELWA, Liberia	
0600	4915	Ghana Broadcasting Corp.	
0600	4783	Radio TV Malienne, Mali	AA
0700	4845	Radio Mauritanie, Mauritania	AA
0730	7120	Italian Radio Relay Service	
0800	7260	Radio Vanuatu, Vanuatu	
1045	4421	Radio Bambamarca, Peru	SS
1100	5020	Solomon Is. Broadcasting Co.	
1100	4835	Radio Maranon, Peru	SS
1100	6130	Lao National Radio	
1100	3325	Radio Maya, Guatemala	SS
1130	3205	Radio Sanduan, Papua New Guineaz	
1130	3305	Radio Western, Papua New Guinea	
1130	4754	Radio Republik Indonesia, Makassar	II
1130	4845	Radio K'ekchi, Guatemala	SS
1200	4725	Radio Myanmar (Burma)	BB
1200	11650	Radio Australia	
1200	4890	National Broadcasting Corp., Papua New Guinea	EE/ pidgin
1200	4860	All India Radio	
1200	6160	CKZU, Canada	
1230	21610	Radio Exterior de Espana, Spain	SS
1230	6150	Radio Corporation of Singapore	
1230	15235	Vatican Radio	CC
1230	21520	RAI Int'l, Italy	II
1230	15400	YLE/Radio Finland	Finnish
1230	5010	China National Radio	CC
1230	17580	Radio Netherlands relay, Madagascar	AA
1300	9615	KNLS, Alaska	
1300	11850	Radio Thailand	CC
1300	7235	Radio Corporation of Singapore	Malay
1300	11760	Radio Havana, Cuba	SS
1300	6070	CFRX relay CFRB, Canada	
1300	9930	KWHR-World Harvest Radio, Hawaii	
1300	11820	Radio Polonia, Poland	Pol
1300	9950	Voice of Afghanistan, England, via Russia	vern
1330	9615	KNLS, Alaska	
1400	11810	Radio Jordan	AA
1400	10330	All India Radio	
1430	17570	Voice of Turkey	TT
1430	15265	Radio Taipei Int'l, Taiwan	CC
1430	15395	Voice of America relay, Northern Marianas	
1430	9845	Radio Japan/NHK	
1430	17535	Kol Israel	HH
1500	9660	Radio Veritas Asia, Philippines	RR
1500	9335	Voice of Korea, North Korea	
1500	15180	BBC	
1500	17805	Radio Romania Int'l	unid
1500	17720	China Radio Int'l	
1530	13765	Vatican Radio	
1600	15100	Radio Pakistan	
1600	11690	Radio Jordan	
1600	17705	Voice of Greece, via Delano, CA	Greek
1630	11725	Radio New Zealand	
1630	9840	Voice of the Mediterranean, Malta, via Italy	II
1630	21745	Radio Prague, Czech Republic	
1700	17505	Radio Sweden	Swedish
1700	17870	Channel Africa, South Africa	
1700	17485	Radio Prague, Czech Republic	
1730	15435	Radio Jamahiriya, Libya	AA
1800	9925	Radio Vlaanderen Int'l, Belgium, via Russia	
1800	11645	Voice of Greece	Greekl
1800	15475	Africa Number One, Gabon	FF
1830	9780	Republic of Yemen Radio	AA/EE
1830	15190	Radio Pilipinas, Philippines	Tagalog
1830	11990	Radio Kuwait	
1830	9550	Bangladesh Betar	
1830	13640	Radio Telefis Eireann, Ireland	
1900	12005	RTV Tunisienne, Tunisia	AA
1900	15120	Voice of Nigeria	
1930	9760	RAI Int'l, Italy	
2000	11734	Radio Tanzania-Zanzibar	Swahili
2000	17850	Radio Exterior de Espana relay, Costa Rica	SS
2030	17830	BBC relay, Ascension Is.	
2030	17660	Swiss Radio Int'l, via Fr.. Guiana	GG
2030	11935	Broadcasting Service of the Kingdom of Saudi Arabia	AA
2030	12085	Radio Damascus, Syria	
2030	15505	Radio Kuwait	AA
2030	9915	BBC relay, Cyprus	
2030	15295	Trans World Radio, Guam	
2045	15476	Radio Nacional San Gabriel, Argentine Antarctica	SS
2100	15240	Voice of America relay, Morocco	
2100	9830	Radio Jordan	AA
2100	11715	All India Radio	
2100	9660	Adventist World Radio, via Austria	
2130	11905	Radio Tashkent, Uzbek	
2145	15500	China Radio Int'l, via Mali	FF
2200	15185	Radio Africa, Equatorial Guinea	weekends
2200	5985	Radio Nacional Congolaise, Congo Rep.	FF
2200	9705	La Voix de Sahel, Niger	FF
2215	7205	Cyprus Broadcasting Corp.	Grk/wknds
2230	11635	Central Broadcasting System, Taiwan	CC
2230	6205	Vatican Radio	CC
2230	12045	Deutsche Welle, Germany, relay — Antigua	GG
2300	12020	Voice of Vietnam	
2300	11945	Radio Exterior de Espana, Spain	SS
2300	11760	Voice of America relay, Philippines	
2300	13715	Radio Slovakia Int'l, Slovak Republic	SS
2300	13780	Deutsche Welle, Germany, Rwanda relay	GG
2300	11705	Radio Canada Int'l, via Japan	JJ
2300	13650	China Radio International, via Cuba	CC
2300	15240	Radio Australia	
2330	5770	Radio Miskut, Nicaragua	SS
2345	6265	Zambia National Broadcasting Corp.	

■

power up:
radios & high-tech gear

by Harold Ort and R.L. Slattery

review of new, interesting and useful products

Uniden Debuts New APCO 25 Digital Scanner Models

Uniden America Corporation has unveiled its new digital scanner line for 2002, including the consumer electronics leader's much-anticipated base and handheld APCO 25 digital scanning models.

Speaking at CES, product manager Scott Carpenter showcased the new scanner products, underscoring the company's commitment to keeping its customers at the forefront of scanning technology. "Our retailers have been pushing us for a Uniden APCO25 product for months, and our new BC250D handheld and our BC785D base/mobile scanning unit represent the fulfillment of our promise," Carpenter said. "With the ability to monitor conventional, trunked and APCO 25 conventional and trunked systems, these models are state-of-the-art radio scanners."

According to uniden representatives, the Bearcat BC250D and the Bearcat BC785D models, which are slated to hit shelves later this year, offer 1,100 channels, 10 banks and a frequency range of 25-1300 MHz. the BC250D comprises all of the features of Uniden's market-leading BC780 XLT in a handheld model, plus adds APCO 25 capability and an additional 600 channels. Users of both models must purchase an APCO 25 card, the BCi25D, separately.

A look at one of Uniden's digital scanners.

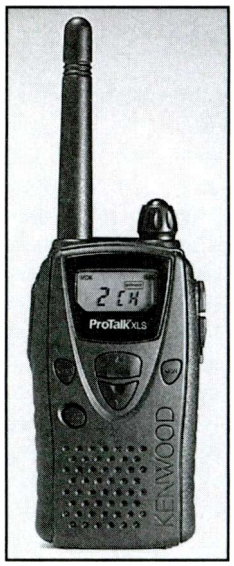
"We're pleased to be bringing these great Bearcat APCO 25 units to market," Carpenter said. "We expect more big cities to migrate to the APCO 25 digital technology, like Los Angeles did this year, to ensure agency interoperability among police, fire, EMTs and the like–and we knows news organizations, businesses and consumers will want to monitor their signals."

Uniden officials stressed that APCO 25 digital scanning technology simply gives users the ability to monitor the day-to-day activities and signals of standard city and government service departments–but in no way allows users to monitor *encrypted* signals from national and local security organizations.

In a separate announcement Uniden also announced its plans to market its own easy-to-use scanner programming software. The software will allow the users of all Uniden scanners with data ports to easily program frequencies into the channels and banks of their scanner.

New Job-Site Two-Way Radio From Kenwood Communications

Kenwood Communications has introduced a compact, rugged two-way radio designed expressly for the job-site communications needs of workers operating in office complexes, restaurants, retail stores, and small warehouses. The new ProTalk XLS, a palm-sized radio with four-mile range, transmits ultra high frequency (UHF) radio signals providing a penetrating, reliable communication link even in challenging RF environments. Equipped with a built-in VOX capability and vibration alert, ProTalk is user-programmable to provide two channels of voice communication from a choice 242 channel combinations. Its features will accommodate personal user preferences while satisfying specific requirements for organized group communications.



A look at Kenwood's new ProTalk XLS radio that retails for $209.

The ProTalk XLS features voice encryption, channel scanning, and a backlit LCD display with numeric and icon read-outs indicating programmed settings and radio performance. It is equipped with rechargeable batteries that provide a 10-hour duty cycle and weighs seven ounces (0.2 kg). A desktop charger is included, but when recharging isn't possible, the radio may be used with store-bought AA batteries. There are never fees or airtime charges when using ProTalk two-way radios. After radio purchase, communications are free of charge and unlimited.

"The ProTalk XLS offers businesses an advanced new solution to on-site needs," said Tom Wineland, Kenwood's president. "It takes many advanced features found in professional radios and introduces the compact design and ease of operation found in today's consumer radios. It's a premium product that will meet the communications as well as budgetary needs of many business."

The two-channel ProTalk XLS offers 38 user programmable analog sub-channels and an additional 83 user programmable digital sub-channels, for a total of 242 channel combinations (2x38 plus 2x83). The digital talk groups provide more than 160 channels of exceptionally clear communications.

The new LCD display allows users to easily choose from a full selection of features. Channel scan ensures users can always find a clear channel to talk, and six call tones and a vibration alert means calls need never go undetected — even in noisy surroundings. Users can take advantage of a voice scrambler unique to XLS model radios to increase privacy between users. Built-in voice activation (VOX) circuitry, with three sensitivity levels, allows users to utilize headsets to bypass the traditional push-to-talk (PTT) methods.

The unit is small (about 4.5 inches tall) and lightweight (about 7 oz.) A tough polycarbonate case helps protect the unit from breakage, dents, and scratches, and a top-mounted rotary volume control, similar to commercial-grade radios, makes for easy operation even when wearing gloves.

The ProTalk XLS radios come preprogrammed with the eight standard Business Radio Service UHF "star" frequencies. Users

can easily select any two of these frequencies for their own use. The ProTalk XLS comes with a rechargeable NiMH battery that provides more than 10 hours of talk time based on a 90/5/5 (90% standby/5% talk/5% listen) duty cycle at 1-watt output. Users can select a lower power setting of one-half-watt to further increase battery life and talk time. The XLS also conserves battery power with a time-out timer that limits talk transmission time. An LCD battery meter shows battery power level, and an audible low battery alert signals when power is running low.

While standard equipment includes the NiMH batteries and a rapid charger, the ProTalk XLS also accepts three conventional double-A alkaline or rechargeable batteries. For more information on the ProTalk XLS radios, which retail for $209, contact Kenwood Communications at 800-950-5005. Tell them you read about their new transceivers in *Pop'Comm!*

B&K Precision Corp. Offers Low Cost 125W Inverter

B&K Precision Corporation just announced the immediate availability of the Model 1605 125W DC to AC inverter to its expanding product line. Utilizing a 10 to 15 Vdc power source such as a standard cigarette lighter, the unit provides an instant output of 115 Vac, 1.2A (125W) at 60 Hz. The new B&K Precision 125W inverter is suitable for a variety of applications such as powering a 115 Vac lamp, notebook computer, or television set from an automobile, camper, boat, or other 12 Vdc battery.

"Priced at a low $69, this compact, high-reliability inverter offers the user an increased selection of versatile, cost-effective, state-of-the-art power sources," said Victor Tolan, President of B&K Precision Corporation. "The Model 1605's small footprint, compact profile and ease of use makes it an ideal choice for use as an alternative source of 115 Vac."

The Model 1605 offers useful features such as overload protection, a front panel mounted low battery warning light and a convenient, easily accessible three-prong, 115 Vac outlet. Greg VonRehder, B&K Precision's Marketing Representative said, "The Model 1605 inverter provides maximum current output continuously hour after hour without overheating."

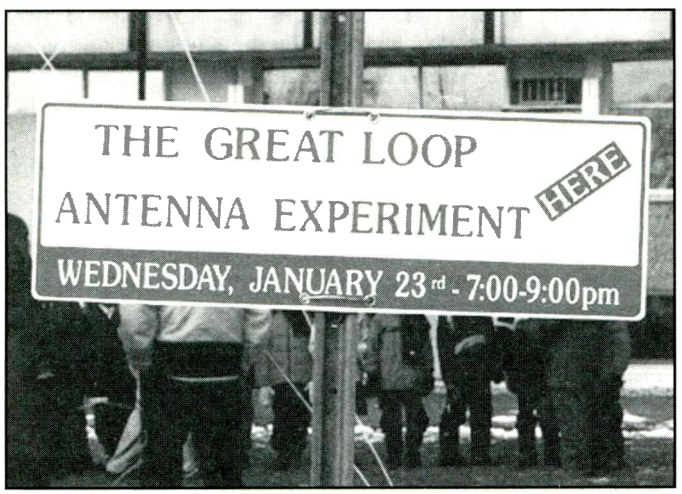
The new B&K Precision Corporation 115 Vac, 125W output inverter.

For over 50 years B&K Precision has developed a reputation for excellence in the design and manufacture of high quality, reliable and cost-effective test and measurement products. Recognized for their price-performance value, ease of use, measurement accuracy and application flexibility, B&K Precision products are available worldwide through a global network of authorized distributors. For more information or the name and location of an authorized distributor near you, contact B&K Precision Corporation, 1031 Segovia Circle, Placentia, California 92870-7137, phone 714-237-9220 or FAX 714-237-9214, or visit their website at www.bkprecision.com. Please tell them you read about their new 1605 inverter in *Pop'Comm.* ■

by Bruce Conti <baconti@aol.com>

Introduce Broadcast DXing At Your School!

Experienced amateur radio operators known as "Elmers" often volunteer their services to schools and organizations to introduce the wonders of Ham radio. Broadcast DXers have their Elmers as well. Teachers are discovering that broadcast DXing can be an outstanding experience for school children as they learn how to apply classroom studies in geography, mathematics, and science. In addition, students practice listening and organizational skills while having fun. Now you can be a broadcast DXing Elmer by introducing the hobby to your teachers or volunteering at your school!



A sign posted in front of the Whitby, Ontario library promotes an experiment with great expectations.

The Great Loop Antenna Experiment

Phil Gebhardt, VE3ACK, has been constructing receiving loop antennas with his students (ages 9–13 years) at Whitby Montessori School in Whitby, Ontario, Canada, as a science and math project and to build an interest in radio. "I took my 1-foot (30-cm) square frame antenna to school and we listened for DX during the day. Of course, the daytime DX wasn't terribly spectacular on the mediumwave band. From the school in Whitby (east of Toronto), we managed to hear CJBQ (800 kHz) in Belleville, Ontario; WJR (760 kHz) in Detroit; and a few U.S. stations in New York state. However, the students were amazed to hear nothing but noise without the loop in place and then hear a clear signal when the loop was placed beside the receiver.

"Once the students saw (heard) my antenna in action, I had them make a few simple antennas. They made two different versions of frame antennas: a box form antenna and a pancake form antenna. The students used small cardboard boxes that we picked up at a local grocery store as frames for the antennas. We used tuning capacitors from RadioShack crystal radio kits to tune the students' antennas. Our major project however was to build a large frame loop antenna on the lawn of the Whitby Public Library. We used two 12-foot (3.65-m) sections of 1.5-inch (40-mm) ABS tubing spaced 15 feet (4.5 m) apart as vertical supports for the antenna. The antenna itself consisted of five turns of number 22 wire in the form of a square with each side 10 feet (3 meters) long. With the assistance of some parents, we put up the antenna in the morning, then tested the antenna, and demonstrated it in the evening.

"The evening was a great success. Brian Smith of the Ontario DX Association came out with his receiver and a commercial loop antenna. Alan Jespersen, VE3ALN, from the North Shore Amateur Radio Club was there to help demonstrate and explain. I was hoping that we would hear some Caribbean or South American stations, but the propagation didn't seem to be with us that night."

THE GREAT LOOP ANTENNA EXPERIMENT LOGS

650	WSM Nashville, TN
750	WSB Atlanta, GA
770	WABC New York, NY
840	WHAS Louisville, KY
870	WWL New Orleans, LA
880	WCBS New York, NY
990	CBW Winnipeg, MB (QRM from CHTX)
990	CHTX Montreal, QC
1030	WBZ Boston, MA
1070	CBA Moncton, NB
1080	WTIC Hartford, CT
1110	WBT Charlotte, NC
1120	KMOX St. Louis, MO
1140	WRVA Richmond, VA
1170	WWVA Wheeling, WV
1500	WTOP Washington, DC

Students prepare to lift the Great Loop Antenna masts into place on the town library front lawn.

The Great Loop Antenna masts are secured and ready for the experimental antenna.

Students, parents, and teachers break for a group photo op beneath their great loop antenna in anticipation of great DX!

Intro To Ionosphere 101

Why can you receive AM radio better at night than during the day? That's the question students will try to answer in lesson plans from the Research Experience for Teachers and the Massachusetts Institute of Technology (MIT) Haystack Observatory. Developed by the Millstone Hill Observatory at the MIT Haystack facility in Westford, Massachusetts, there are five days of lesson plans in which students calculate distances, compare and contrast AM to FM, learn about wavelength versus frequency, and study relationships with the ionosphere. Students have access to observatory data and experiments analyzing the ionosphere via the Internet. The activities culminate in a weekend AM challenge to find as many stations as you can, from as far away as possible. Students are required to log call letters, frequency, city, state, time, date, and the type of programming heard. Lessons are connected to state and national curriculum standards. Visit http://fourier.haystack.mit.edu/RET/Atmospheric/Default1.html or click on the link at my web page http://members.aol.com/baconti/bamlog.htm for more information and materials.

Shortwave Goes To School

Another resource for teachers explores DXing through writing and social studies. **"Shortwave Goes to School"** by Myles Mustoe **(Tiare Publications, 1989)** provides 44 separate activities covering everything from identifying news and propaganda, foreign languages, and music, to writing a formal letter and reception report. Technical aspects are covered as well, including frequency, time zones, and purchasing a receiver.

These lesson plans and the Whitby loop experiment are great ways to introduce school children to radio as a hobby, or you could develop your own plans. Materials are basic; AM/FM radios, reference materials such as the World Radio TV Handbook, NRC AM Log, atlases and maps, wire and hardware for antennas, and Internet resources including FCC and CRTC databases. Talk it over with your school teachers, or contact the local Parent-Teacher Association/Organization about volunteering. Then have fun introducing children to the excitement of broadcast DXing!

QSL Information

650 WNMT Nashwauk, Minnesota, friendly partial-data letter, business card, and coverage/rate card for six co-owned stations (Midwest Radio Network) in 10 days for report and $1 (returned), signed Kristi Garrity, GM. Address: 807 W 37th St, Hibbing, MN 55746. (Griffith, CO)

650 KMTI Manti, Utah, partial-data letter, coverage map, bumper stickers, and business card in 13 days, signed Douglas Barton, Owner/Manager. Address: 1600 W 500 North, Manti UT 84642. (Griffith, CO)

980 CJME Regina, Saskatchewan, QSL card and letter in 13 days, mentioned my report was for their first day of operation on 980 with a test message. (Martin, OR) Partial-data scenic post card in 13 days, states my report was for test transmission four days before the actual switch from 1300 to 980, and they appreciate reports on the new frequency to help evaluate coverage, signed David M. Senft, VP of Engineering. Address: 2401 Saskatchewan Drive #210, Regina SK S4P 4H8. (Griffith, CO)

1270 KAJO Grants Pass, Oregon, QSL letter, stickers, and cards in 20 days, signed Mike Carmichael, Chief Eng. Address: P.O. Box 230, Grants Pass, OR 97528. (Jackson, CA)

1270 KXBX Lake Port, California, QSL letter in 10 days, signed George Fexer. Address: Incie Radio Group, 140 N. Main St., Lake Port, CA 95453. (Jackson, CA)

1280 CJSL Estevan, Saskatchewan, QSL card in seven days after an E-mail follow-up, signed Jim Hutchings-Stn. Eng. Address: P.O. Box 1280, Estevan SK S4A 2H8. I now have all Saskatchewan MW stations QSL'd. (Martin, OR) Congratulations, Patrick!

Broadcast Loggings

The sun seems to be letting up on the second round of peak solar activity in Cycle 23. Patrick Martin reports, "Some pretty decent conditions for TPs (transpacific stations), the best I have heard in awhile." Patrick does his DXing with the Kenwood R1000 receiver and a Ewe antenna. (Refer to *Pop'Comm*, February 2002, for Ewe info.) Mark Connelly checks in with some TA (transatlantic) action as well, using the Drake R8A receiver and an antenna system consisting of a sloper and various longwires into a homebrew "Superphaser-1" phasing unit. Keep an ear on 1610 kilohertz as the CRTC has given approval for a new 1 kW station in Montreal, Canada's first AM expanded band station. Meanwhile listeners in the east are being treated to a new "x-band" station from the U.S. Virgin Islands! All times are UTC.

530 R. Vision Cristiana, Turks & Caicos, absolutely blasting in this morning from 2,360 miles away. What a signal! (Griffith, CO)

594 JOAK Tokyo, Japan, at 0841 fair with man in Japanese as usual and NHK 1. (Martin, OR)

690 XEN Mexico City, Mexico, at 0330 good with talk in Spanish, telephone number 54-42-69-69, and IDs simply as "La 69." (Conti, NH)

693 JOAB Tokyo, Japan, at 0845 heard with a different program (NHK 2) with a man in Japanese and usual language lessons. (Martin, OR)

738 RFO Mahina, Tahiti, at 0850 fair with alternating man and woman announcers in French. (Martin, OR)

740 CHWO Toronto, Ontario, at 1340 fair; barely catching an interview with the Ontario DX Association's Brian Smith before sunrise killed the signal, discussing AM DXing, CHWO being received in Italy, QSLs, and the ODXA website, www.odxa.on.ca. (Conti, NH)

747 JOIB Sapporo, Japan, at 0847 poor in 750 splash with a man in Japanese parallel 693 kHz. (Martin, OR)

774 JOUB Akita, Japan, heard at 0848 really good parallel 693 and 774 kHz, the best transpacific signal of the night. (Martin, OR)

783 R. Mauritanie, Nouakchott, Mauritania, at 2313 parallel 4845 kHz with a public speech in Arabic; to fair peak over CFDR splash. (Connelly, MA)

970 WRCS Ahoskie, North Carolina, at 0520 a special DX test received with Morse code changing in pitch. (Line, MI)

1070 KATQ Plentywood, Montana, fair alone at 2255 with Country Music Countdown, "KATQ Plentywood" and local weather forecast for northeast Montana. This rare catch has been heard often this winter, sometimes with KTDI interference. (Martin, OR)

1125 Hrvatski Radio, Deanovec, Croatia, at 2337 smooth jazz; to fair peak, about 12 dB weaker than the parallel 1134 kHz powerhouse. (Connelly, MA)

1134 Hrvatski Radio, Zadar, Croatia, at 2107 a woman with Slavic-talk telephone interview; huge, actually stronger than WBBR-1130. (Connelly, MA)

1188 HLKX Seoul, South Korea, presumed with hymn music heard at 0831 in KEX splatter. No sign of 1566 HLAZ at this time; maybe on a different directional pattern? (Martin, OR)

1287 JOHR Sapporo, Japan, at 0805 fair to poor with discussion between two men in Japanese; a news program? (Martin, OR)

1314 NRK Kvitsoy, Norway, at 0550 noted still on the air with Norwegian talk and piano music, to good peak through CIWW-1310 and CKEC-1320 slop. (Connelly, MA)

1340 WNBR Augusta, Maine, at 1400 a religious broadcaster with IDs as "Kiss 1340," web site is wnbr.com. (Hallenbeck, ME)

1400 WEZW Augusta, Maine, at 1550 simulcasting WMME "92 Moose FM" out of Bangor, format is adult contemporary music. (Hallenbeck, ME)

1460 KLTC Dickinson, North Dakota, at 0812, "The new home of the legends of country, you're listening to Dave Love, 1460 KLTC." (Griffith, CO)

1620 WDHP Frederiksted, U.S. Virgin Islands, heard at 0058 good with a promo for island culture music on the Saturday Morning Musical Show, then station identification, "You're listening to WRRA 1290 The Reef, simulcasting WDHP 1620 AM, WAXJ 103.5 FM The Reef, in the United States Virgin Islands. Our transmitter is at . . . Mahogany Road . . . our studios at number 79A Castle Coakley, Christiansted. We are in St. Croix, WRRA 1290 AM, WAXJ 103.5 FM, WDHP 1620 AM," followed by IRN news, promos, and soca music. (Conti, NH)

Paul Walker in southeastern Connecticut would like to trade airchecks, and is especially interested in the inaugural broadcast of 91.7 WNEF Newburyport, Massachusetts, a new FM station operated by UMass-Boston. If you can help, please E-mail Paul at thevoiceofbaconacademy@hotmail.com, and thank you. Thanks also to broadcast DXers Mark Connelly, Phil Gebhardt, Patrick Griffith, Don Hallenbeck, Gary Jackson, Rich Line, Patrick Martin, and Brian Smith for their contributions this month. 73 and good DX! ■

pirate & alternative radio

free radio broadcasting

by Edward Teach

Eating Crabs In Ft. Lauderdale?

The Purple Nucleus of Creation, 6955 USB heard at 0019 with mainly new age music, voice collages and occasional tolling of bells. Clear IDs at 0031 and 0051 sign-off. Appeared to be from the same transmitter that aired KIPM immediately after they closed. (Unidentified reporter)

KIPM, 6955 USB from 0051 with long drama about a man trapped in an insane asylum. Elkhorn, NE address. (Unidentified reporter) **6925 USB** at 0040 with a program called "He Who Evolved." Also at 0120 with "The Clockwork." Also at 0215 with "Pirate Jesus," and 0312 with "He Who Shank." (William Hassig, IL)

Radio Toronto, 6955 USB at 2147 with rock, plenty of announcements, several phony Budweiser ads. Merlin address. Then from 2218 an apparent program repeat but with clear KIPM IDs in voice and CW, indicating this transmitter was being used as a relay for Radio Toronto. (Unidentified reporter)

Radio Free Speech, 6899.8 at 2350. Bill O. Rights featuring various standup comics and silly instrumental music. Mentioned John T. Arthur's mail drop and thanked him for maintaining it. Off at 0000. (Unidentified reporter) **6955** at 1052 with songs, talking about the government reducing our rights, said they were broadcasting from Missoula, Montana, and aired a Bob and Ray program from 1949. Also at 0040 mentioning names of many listeners, song spoofs, George Carlin bit. (Hassig, IL)

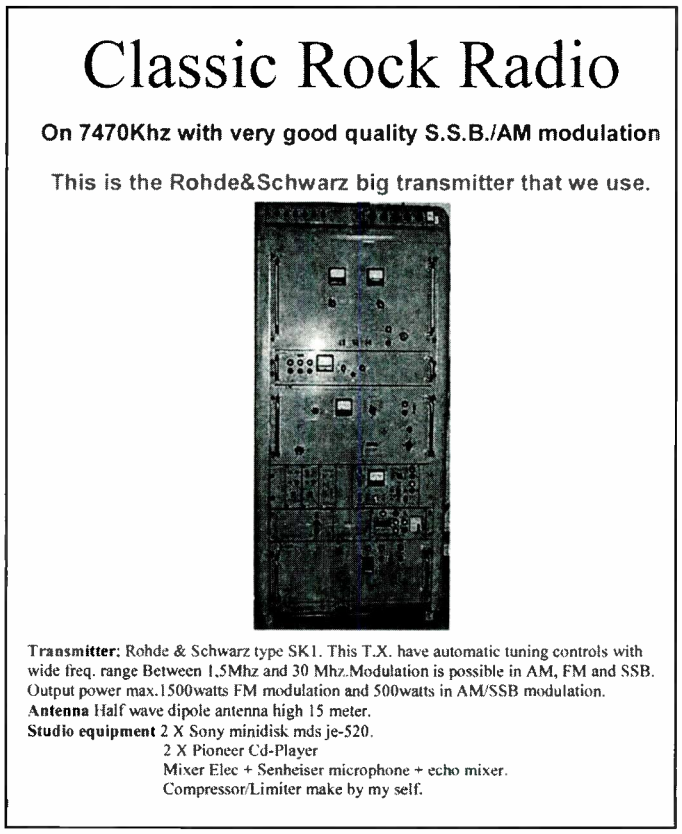
Crunch Radio, 6955 at 2350 with pop instrumentals, historic BBC news clips. Claimed to be broadcasting using Motorola AM stereo system. Gave a brief test segment that was supposed to screw up synchronous detectors in receivers but I noticed nothing unusual in the synch or ISB modes on my Ten Tec 340. (Unidentified reporter)

Psycho Radio, 6950 USB at 0234 with mainly rock and some "We want Psycho" chants here and there. (Unidentified reporter). 0210 with rap and speed metal music. (Hassig, IL) **6955 USB** at 1317 with talk about listening through the left and right side of the speakers. He was making the audio sound as though it were true stereo. Also Good Morning Vietnam, comment, "You are invited to listen to your favorite pipe music," and mention of Crazy Radio. (Tim Taylor, PA)

Radio Free Euphoria, 6925 at 0340 with various ads for fake music albums and movies. Very strong. (Hassig, IL) 0340 with "White Rabbit," parodies with lines about other DX'ers. (Garth Doetzel, BC)

KRMI, on **6925.1** — Radio Michigan International. Also heard at other times on **6950.16** at 0233 and **6950.86** at 0336. (Hassig, IL)

Radio Three, 6925.07 heard at 0135 with rock and talk of eating crabs in Ft. Lauderdale. (Hassig, IL) **6955 USB** at 0227



Classic Rock Radio claims to use an old Rhode & Schwarz transmitter. At least they have a picture of it.

with mention of Free Radio Network, mention of this being a test transmission for propagation experiment. Off at 0243. (Taylor, PA)

Oxycontin Radio, 6925V at 0307 signing on with Glen Miller's theme, and claiming "175 watts of Oxycontin Power." Also the song "Way Back Home" and one by the Sex Pistols. (Hassig, IL)

Paragon Radio, 6952v USB at 0353 with a Mario Brothers game, mention of "World 3," Off at 0401. (Taylor, PA)

WLIQ, 6955 USB monitored at 0141 with ID, taking requests and said something like respondents would receive an internal antenna. Mentioned Blue Ridge Summit mail drop and that they were a member of the Free Radio Network. ID at 0156 and off. (Taylor, PA)

Radio Neptune Universal Service, 6950v at 0531 with "Dead or Alive" and mention of the Blue Ridge Summit address. (Taylor, PA).

(Continued on page 76)

by Kirk Kleinschmidt, NTØZ

Today's Ham Software is Better Than Ever!

I know we've been spending a fair amount of time lately on software and computer-related topics, but when you consider the benefits conveyed by today's Amateur Radio software, I think it's worth a little focus. And I'm not trashing yesterday's software — I'm simply highlighting the amazing capabilities of today's offerings!

Thanks in large part to the availability and affordability of the Internet, there are hundreds of interesting applications to expand and enhance your radio hobby, and many are free! The value is staggering! And when you consider that much of the development work is being done by ham programmers who are giving away their creations (or charging only a few bucks for it) it's even more amazing

By now we all probably know that computerized logging packages have totally revamped ham radio contesting, which was once encumbered by paperwork and fast pencil-pushing, and that today, no serious contester even turns on a rig without booting up a computer! But if you think the innovation is limited to contesting, you'll really be surprised.

Much of this software renaissance is made possible because of the Internet — a vast sea of articles, software, schematics, bulletins, newsletters, magazines, classified ads, call sign databases, packet clusters, propagation forecasts, etc. The Internet (every ham's best friend) is exploding with resources — and tons of freely downloadable software that can really expand your horizons. If you haven't sampled the wares, get ready to download!

Where to Find It

You can't buy much ham software at the local store — not even the local ham store, even if you're lucky enough to have one nearby. It's too specialized. Instead, you'll find most popular (commercial) titles advertised in Amateur Radio magazines or at manufacturer web sites.

Most ham software, however, especially software and much of the truly inspiring and amazing stuff, is released as shareware (or freeware) and isn't advertised to any great degree.

Word of mouth and the Internet (the biggest "mouth" on the planet) spread the word.

There are several large Amateur Radio software archives on the web, but these tend to be nameless, faceless lists of program names — the good, the not-so-good and the often-out-of-date. If you know what you're looking for, that's fine, but wading through hundreds of cryptic listings and program names in a sterile, Unix-like environment can be a real drag.

Thankfully, links to most software packages that are widely used (and loved) can be found on at least one of several ham radio "supersites." Start your search at www.eham.net, www.qrz.com, www.contesting.com and www.ac6v.com. You'll spend a heck of a lot of time perusing the links found at these popular sites, so be prepared to take off exploring one topic after another.

The Hard Stuff

IBM-compatibles dominate the market, so if you want to experiment with the widest range of available software, make sure you're using one! Although you can sometimes get by even with an old 486-class machine, most of the really interesting ham software likes to run on Windows (95 and 98, with a smattering of stuff running on NT, 2000 and XP and even Linux), so try to stick to a Pentium 200-MHz machine as a bare minimum.

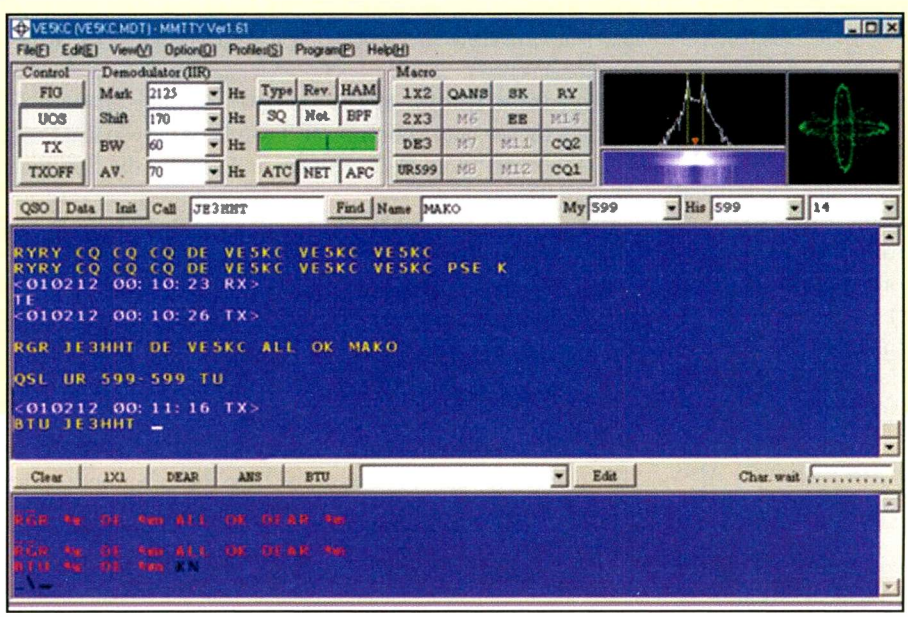


Figure 1: Developed by Makoto Mori, JE3HHT, MMTTY is perhaps the best RTTY terminal available. Your PC and its 16-bit sound card provide all necessary hardware!

Anything less can lack horsepower, especially for graphically rich apps. PCs with plenty ports — standard serial and parallel ports — are best for exploring ham software, most of which doesn't yet support newer peripheral interfaces such as USB and Firewire. Your old PC, especially if it's in the 200 to 500 MHz range, is a perfect choice.

The Soft Stuff

I don't have nearly enough space in the column to list even fraction of the available software that's lurking on the web. That could fill the entire magazine. The software sites I mentioned previously will get you off to a good start. Instead, here's a partial list of software types to get your imagination started: Antenna design and modeling, digital signal processing, logging packages (contest, conventional and even SWL), world time clocks, exam preparation, mapping packages, propagation modeling and prediction, Morse code, PSK31, RTTY, radio control, audio recording, rotator control, fax reception, electronic design, circuit board layout, slow-scan television, and more! The list is virtually endless — see anything interesting?

One of the key technologies fueling the resurgence in Amateur Radio digital modes is the lowly PC sound card, which has now been tapped to perform a wide variety of ham radio miracles. Thanks to advanced DSP programming routines, a PC sound card can modulate, demodulate and precisely tune signals such as RTTY, PSK31, SSTV, Morse code and more, usually better than the dedicated hardware terminals that were popular — and expensive — for the past 20 years or so.

This capability, combined with the fact that almost every ham has access to a PC with a 16-bit sound card, has turned ham radio upside down. The digital subbands are exploding with activity and hams are happily chatting keyboard to keyboard, fax to fax, photo to photo — whatever.

Just in case you're stuck with the outdated notion that home-grown ham software is bland and boring, let me highlight a couple of packages I find fascinating. They're anything but boring!

RTTY? No, MMTTY!

About 10 years ago I was fortunate enough to have a HAL ST-6000 military-grade radioteletype terminal that sported top-of-the-line performance that eclipsed that of the amateur-grade multimode terminals most hams used. It was big and clunky, but it worked amazingly well and it sported the best RTTY tuning indicator ever devised a small oscilloscope that plots mark and space tones as a distinctive "plus sign."

Today, however, you can achieve better performance with a $9 sound card and an amazing program called MMTTY, written and developed by Makoto Mori, JE3HHT, a generous and gifted Japanese ham/programmer who gives away his amazing software. You can get your copy at www.qsl.net/mmhamsoft/mmtty.

As shown in **Figure 1**, if you look in the upper-right corner of the screen shot you can see a near-perfect recreation of the tuning oscilloscope used in top-line RTTY hardware terminals! It's gratifying to see a ham radio freeware product that's actually the best of the best. And don't simply take my word for it. Many contesters —

the crowd that often identifies the radio things that work the best — have ditched the hardware RTTY boxes and have switched to MMTTY. That's amazing!

What's also amazing is JE3HHT's slow-scan television software, which also works with your PC's sound card. You can find it at www.qsl.net/mmhamsoft/mmsstv, along with an excellent introduction to operating SSTV.

DXLab

All-inclusive ham radio logging/DXing suites were once proprietary and expensive — but not anymore! Developed by Dave, AA6YQ, the DXLab is a suite of interoperating applications designed to automate DXing activities.

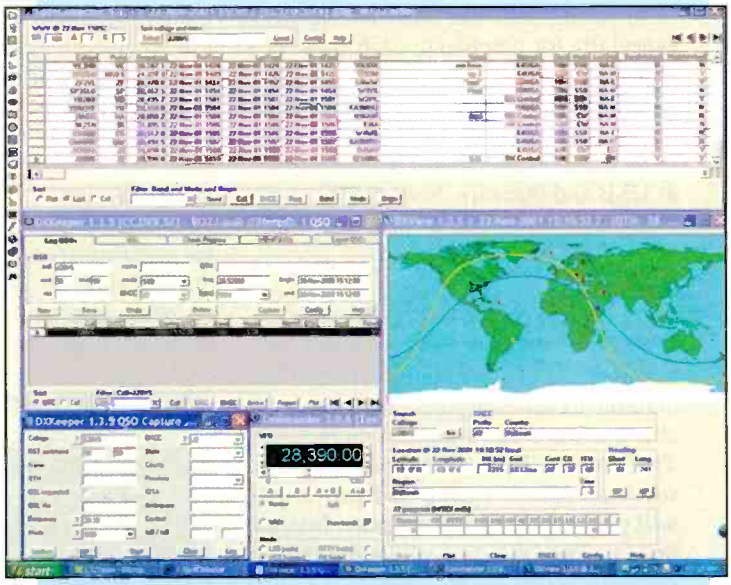
Each application can be independently installed and utilized, and when multiple applications are running, they sense each other's presence and interoperate appropriately

Available modules include a logbook and awards tracker; a PSK31 terminal; a mapping package that shows beam headings and solar terminators; a QSL and QSL route finder; a rig-control module; propagation prediction and a PacketCluster spot collector

As shown in **Figure 2**, the DXLab suite is mature, complete and free for downloading. AA6YQ is constantly improving his software suite and is very responsive to user input.

DXLab is an outstanding product and an amazing value. Check it out at www.qsl.net/dxlab.

So, there you have it - two free software offerings that define the best our hobby has to offer. I heartily encourage you to check out these packages and many others. You'll enrich your ham radio experience in uncounted ways.



DXLab, a free comprehensive suite of DXing software modules developed by Dave, AA6YQ, may be the only logging/DXing package you'll ever need.

As usual, send your QSL cards, questions and letters to me at *Popular Communications*, "Ham Discoveries," 25 Newbridge Road, Hicksville, NY 11801. ■

global information guide

listening to what your world says every day

by Gerry Dexter

Kol Israel May Drop English Shortwave Service

If you're having a bad day maybe you'd better not read any further because what follows is sure to add to your depression. There's been another round of negative news in the world of shortwave broadcasting lately so we had better hunker down, grit the teeth, and get on with telling you about it.

First, Israel Broadcasting Authority has decided to discontinue foreign language programming from Kol Israel. If approved, not only will English be dropped, but shortwave programming will be restricted to just two home service relays: Reshet Bet (in Hebrew) and the Dalet service (in Arabic). For all practical purposes this would seem to mean that Kol Israel no longer exists. The usual — "It's the budget, stupid!" — reasons are cited. But it seems an extremely foolish move, given Israel's current near-war with the Palestinian terrorists. And for some especially icky frosting on this cake, there's also word that QSLs from Kol Israel appear to be a thing of the past, too. Reports, which apparently went to and were answered by the English department, are no longer of interest (they say). It may, however, still be possible to get answers out of the two home services, which will be left on shortwave. Time will tell. Complaint letters go to: Israel Broadcasting Authority, P.O. Box 1082, Jerusalem, Israel.

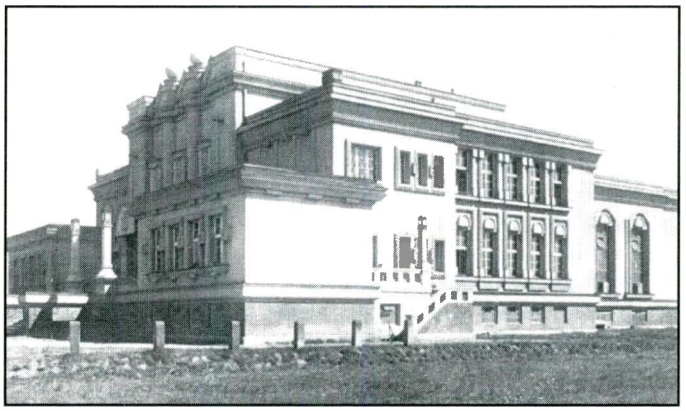
It's not a done deal, as Deputy Foreign Minister Melchion has told the IBA "...ending the broadcasts during this difficult conflict would be an irresponsible move..."

Future Status Of Icelandic Broadcasting Service Questionable

There's also trouble at the unpronounceable Rikisutvarpid — The Icelandic Broadcasting Service which, nearly forever, has maintained a several times daily schedule of broadcasts in Icelandic, aimed mostly at that country's fishing fleet in the northern Atlantic. The service was off the air briefly a few months ago, but is active again (as this is written), although its future status is open to question. Contact the International Relations Department, Efstaleiti 1, IS-150 Reykjavik, Iceland.

India Decides On FM

Next we learn that India, which in recent years has been planting shortwave antennas like an Iowa farmer puts down corn, has decided to let FM handle the job of nation-wide radio coverage. This would mean establishing a whole mess of FM transmitters — more than 100 of them — which sounds like a pretty expensive proposition. Some additional medium wave stations would also have to be added. If common sense has become a lost art in India as well, at least we don't have to start worrying over this tomorrow, because All India Radio is going to let nature take its course. When the shortwave transmitters get sick or become comatose, AIR isn't going to bother with any electronic doctoring, they're just going to let them wither away. They say it will be 10 or 15 years before we begin to see the effects of this deliberate neglect. Your comments can be sent to the Directorate General of All India Radio, 1 Sand Sad Marg, New Delhi, India.



Radio Prague's transmitters were housed in this building way back before WWII (1936, actually).

Other Shortwave News

And the Russians have discontinued the near comatose shortwave service of Radiostansiya Tikhiy Okean (Radio Pacific Ocean), which, even back in the days of the Soviet Union, aired programming for people in the Russian Far East and Russian/Soviet sailors in the Pacific. Tikhiy Okean used to be a fairly extensive service but, in the end, had dwindled down to less than an hour a day (on 7175).

Finally, we should also note that **Radio Yugoslavia** is off the air again. The government owes a whole lot of money to the electric company that serves the transmitters in Bosnia and until the tab is paid, it's "access denied!" There are no shortwave transmitter sites in what's left of the original Yugoslavian state so it's put up or shut up!

We can't help but wonder if the people in Jerusalem, Oslo, Vienna, Reykjavik or wherever (you say London?) who make these "let's get modern and dump this old fashioned shortwave stuff" decisions aren't pretty accurate copies of the 30-ish, "I'm just too cool" types we all run into who have no sense of anything beyond what's "in" today. That 84-page comb-bound document filled with charts and graphs they've produced is, like, going to do it for them if they can sell it to the higher-ups — a sure ticket to a corner office and their own parking slot. Heshe's gotta have that cool new Gucci attaché case, sleeps with his cell phone under the pillow and the PDA is kept armed and ready at all times. If it hasn't been on MTV it isn't music. Well, you know the type. Maybe there's some sort of DNA commonality involved. Whatever it is, more and more — to the detriment of all of us — they are taking over the world. And do you know

what? All things said and done —whether it involves shortwave or not, they really don't have — a — clue!

Some New Shortwave Transmitters

Well, there are positive things to talk about too, so let's see what we can do to get out of the doldrums. Surinam, the Democratic Republic of the Congo, Bolivia, Benin, and Burkina Faso wouldn't seem to have much in common but are all destined to receive new one kilowatt shortwave transmitters, produced by HCJB's Engineering Center. One such has been in use for a couple of years now at ELWA in Liberia (4760). So this means we can expect at least six new stations in the coming year or so.

Adventist World Radio's station in Guam is getting a big upgrade — to the tune of five high power transmitters that will be installed over the next couple of years. A fancy new automation system is part of the package.

Americans may not like the regime, but the government of Libya has been adding frequencies left and right, in an obvious move to reach more people with a better signal. Part of this involves an arrangement with France to use the transmitters at Issoudun to carry the various services of Libyan radio. In use now at various times are: **7330, 9415, 9445, 9485, 11635, 11645, 11715, 15205, 15615, 15625, 15660, 17530, 17695, 21630 and 21675.**

As we mentioned last time, Africa Number One is now carrying a relay of RadioTV National Congolaise, and this has to be a sign that the government in Kinshasha is also interested in extending its voice. (Must not be anybody in that government with a cell phone fetish!) So far, we've not been able to hear the 0400 airing (on **9770**), nor the one at 1600. By the way, the United Nations should have one of its peacekeeping stations on the air from the Congo before long. It'll be called Radio Okapi but there's no info yet on frequencies and times. You can bet that it will be a pretty low power affair and thus quite difficult for us to hear.

Radio Pueblo is a new one from the Dominican Republic (see logs). It's using **5010** and so causes problems with the Honduran there. The address is Apartado Postal 10-99, Santo Domingo. The sign off varies quite a bit but is usually between 0230 and 0300. Another Dominican, Radio Cristal, also operates here, although inconsistently. Fellas, there's all kinds of room on this band; why do you both want to sit in the same booth?

The religious organization in Papua New Guinea, KBBN, reports that they now hope to have a shortwave transmitter on the air by the middle of the year (so look for something by maybe early next year?)

Another new-ish operation is the Fundamental Broadcasting Network, which is airing over the Sitkunai transmitter site in Lithuania. Check for their broadcasts from around 1200 or a little later on **9710**.

Malawi, an always-tough catch on its **3380** spot — has reactivated on **7130**. This is good news if you live in the Eastern part of the United States because you'll probably be able to catch them during the winter months up to their sign-ff shortly after 200.

Swish Noise On 60 Solved

If you have spent any time cruising around 60 meters in the past few months you have undoubtedly noticed the strange "swish" sound annoyingly occupying great chunks of the spectrum, usually 100 kHz or more. Turns out these are produced by something called CODAR which is not some newly thought up grade B Japanese movie monster, a la Gorgan. CODAR stands for Coastal Ocean Dynamics Applications Radar and what it does is measure ocean surface currents. Rutgers University operates three of these transmitters along the New Jersey coast and eventually plans to expand the system, which, of course, means we're likely to have even more interference than we're already getting!

Abbreviations Used In This Month's Column

//	—	Parallel frequency
ABC	—	Australian Broadcasting Corporation
AFRTS	—	Armed Forces Radio Television Service
AFN	—	Armed Forces Network
AIR	—	All India Radio
anncr	—	announcer
anmt(s)	—	announcement(s)
BSKSA	—	Broadcasting Service of the Kingdom of Saudi Arabia
CNR	—	China National Radio
GOS	—	General Overseas Service
ID	—	identification
Int'l	—	international
IS	—	interval signal
Lang	—	language
LSB	—	lower sideband mode
NBC	—	National Broadcasting Corporation
OA	—	Peru, Peruvian
PBS	—	People's Broadcasting Station
Pgm	—	program
RRI	—	Radio Republick Indonesia
sked	—	schedule
SIBC	—	Solomon Islands Broadcasting Corporation
TOH	—	Top of the Hour
unid.	—	unidentified
USB	—	upper sideband mode
vern	—	vernacular (any local dialect or language)
VOA	—	Voice of America
VOIRI	—	Voice of the Islamic Republic of Iran

Finally, we can tell you that there is absolutely no truth to the rumor that the BBC Shop is selling Mark Byford bobblehead dolls.

This month's book winner is **Dave Jeffery** of Niagara Falls, NY. Dave gets a 2002 edition of *Passport to World Band Radio*, courtesy of **CRB Books** — The Radio and Electronics Hobby Bookstore. Check out their terrific catalog offering hundreds of fascinating titles. To get a copy write to P.O. Box 56, Commack, NY 11725 or check their web site at www.crbbooks.com.

Remember, your shortwave broadcast logs are forever sought and always welcome. Just remember to list your catches by country, double or triple space between them and add your last name and state abbreviation after each. We're also looking for spare QSL cards we can use as illustrations. Also station schedules, station photos, shack photos, pennants, schedules — anything and everything you'd care to lay on us! As always deepest thanks for your continued interest and support!

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** from 1300–1359. Fading rapidly near the end of the broadcast. (Silvi, OH) 1347 with talk on pregnancy, then one on grayline propagation. (Lawrence, WI)

ALBANIA — Radio Tirana, **7270** in presumed Albanian at 0025. ID at 0030. (Brossell, WI)

ANTARCTICA — Radio Nacional San Gabriel, presumed, **15475.8** at 2050. Just above the noise level through top of the hour. Announcement at 2100 and off at 2101. (Strawman, IA)

ANTIGUA — Deutsche Welle relay, **12045** at 2235 in GG with talks and music. // - 15410 (via Rwanda), **13780** (Rwanda), **12000** (Portugal) and **17860** (Rwanda). (MacKenzie, CA)

ARGENTINA — Radio Nacional, **15345** at 0126 with news in SS. (MacKenzie, CA)

ARMENIA — Voice of Armenia, **9960** at 2024 with anthem, ID, schedule, news, "Political Week" program. (Burrow, WA) 2035 with end of GG program, IS, fanfare and opening ID: "This is Yerevan. The public radio of Armenia is on the air." Then news and mailbox. (D'Angelo, PA) **9965** in SS at 0335. (Brossell, WI)

ASCENSION ISLAND — BBC, **11765** in SS at 0030. **12095** with news from Africa at 0000. (MacKenzie, CA) 0010 with news reports. (Brossell, WI) **15190** at 1220 with talk about world oil situation. (Linonis, PA) **17830** with sports results. (Lawrence, CA)

AUSTRALIA — ABC Northern Territory Service, Katherine, **2485** at 1552 with forum on Australian politics. (Foss, Philippines) ABC NT service, Alice Springs, **2310** at 1326 with news. **2485** Katherine also heard. (Strawman, IA) ABC NT Service, Tenant Creek, **2325** at 1345 with news/talk. (Strawman, IA) Radio Australia, **6080** at 1830 with sports and news. (Burrow, WA) **9580** with news at 1555. (Northrup, MO) **11650** with bluegrass at 1150. (Linonis, PA) **15240** off abruptly at 0900. (Barton, AZ) 2320 with ID for "Radio Australia Pacific Network." ((Brossell, WI) **21680** in Indonesian at 0015. **21740** with news at 0005. (MacKenzie, CA) **21725** with sports at 0354. Also on **21820** at 1334. (Foss, Philippines)

AUSTRIA — Adventist World Radio, **9660** at 2100 and "Wavescan" at 2130. (Silvi, OH) In EE at 2100. (Silvi, OH)

BANGLADESH — Bangladesh Betar, **7185//9550** at 1800 with Islamic history program, "Voice of Islam," schedule, ID, news. (Burrow, WA) **9550** at 1836 with EE talk, sub continental music. (Strawman, IA)

BELARUS — Radio Minsk, **7210** heard at 0300 with IS, ID, schedule, and address. (Burrow, WA)

BELGIUM — Radio Vlaanderen Int'l, **9925** via Russia in FF at 1729. Dutch (?) from 1800 and EE from 1830. (Silvi, OH)

BOTSWANA — Radio Botswana, **4820** at 0254 sign-on with familiar barnyard IS, choral anthem at 0259, ID, opening anmts at 0301 and news. (D'Angelo, PA) VOA relay, **9885** at 0350 with news items. (Brossell, WI) 0420 with sports news. (MacKenzie, CA)

BRAZIL — Radio Difusora Londrina, **4815** at 0016 with man in PP, talk, ID, lively Brazil pops. (D'Angelo, PA) Radio Nacional do Amazonas, **11780** with phone-in show in PP. (Miller, WA)

BULGARIA — Radio Bulgaria, **9400** at 0327 on Bulgarian celebrities. (Burrow, WA) 0045 with interview, folk music, **//7400**. Also **11600** in Bulgarian at 0040, // **5900**. (MacKenzie, CA) **17500** in SS at 1635. (Brossell, WI)

CANADA — CFRX relay of CFRB Toronto, **6070** at 2004. (Lawrence, WI) CKZU, Vancouver, **6160** with CBC News-Vancouver at 1434. (Lawrence, WI)

CENTRAL AFRICAN REPUBLIC — RTV Centrafrique, tentative, **6100** at 2055 with man and FF talk, instrumental music and news at 2100. Apparent sign off anmt at 2126. (D'Angelo, PA)

CHILE — Voz Cristiana, **15375** with anmts and ID in SS at 0015. (Brossell, WI) 2045 with some type of geography game show in SS. (Lawrence, WI)

CHINA — China Radio Int'l, **7405** with sports at 1440; **9605** at 1300; **11500** with oriental music at 1620; **11750** in CC at 1330 and **17680** in JJ at 1515. (Northrup, MO) **11650** in SS at 0035. **13680** in EE at 2322. (MacKenzie, CA) **11980** at 1300–1359. (Silvi, OH) **17720** at 1500 with news and part five of a series on China. Gave E-mail of crieng@cri.com. (Ray, OK) **17860** with news at 0205. (Lawrence, WI) CPBS/CNR — **5010** at 2227 with EE lesson. (Alexander, PA) 1310 with CC talk. (Lawrence, WI) **5320** with radio drama in CC at 1542. **6125** with CC talk and piano in background at 1411. (Foss, Philippines) **11835** at 0025; **11890** in CC at 0015, **//11100, 11610, 11800, 11835**. Also **17700** at 0110 and **17890** at 0030, all in CC. (MacKenzie, CA) **4800** in Mandarin at 1325. Also **11960** at 0350 with music, time pips to ToH and ID. (Strawman, IA) **15100** in CC at 0035 and 15260 in unid language at 0051. Barely audible. (Jeffery, NY) Xizang PBS, **12080** in CC at 0007. **//11915**. (MacKenzie, CA)

CONGO (Republic) — RTNC, **5985** with music and program in FF heard at 2200. (Lawrence, WI)

COSTA RICA — Radio Exterior de Espana relay, **9630** in SS at 0436 and **17850** in SS at 2020. (MacKenzie, CA)

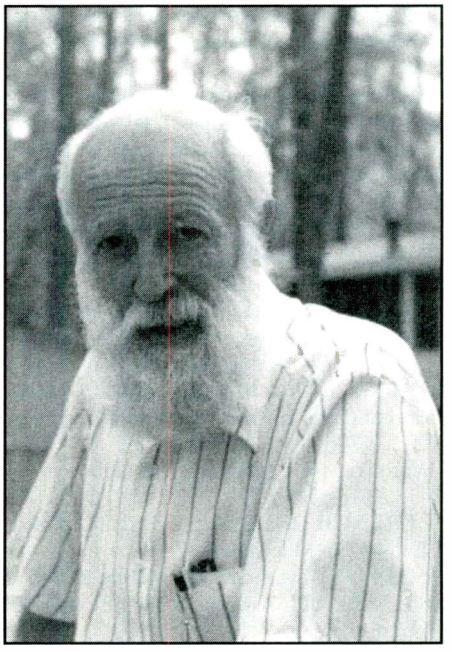
CROATIA — Voice of Croatia, *(via Germany — Ed)* **9925** in unid. language at 0400 with multi-lingual ID and schedule for different world areas. (Burrow, WA)

CUBA — Radio Havana Cuba, **11760** in SS at 1325. (Northrup, MO) Radio Rebelde, **5025** in SS with Latin music at 0456. (Lawrence, WI)

CYPRUS — BBC relay, **9915** in AA at 2035. (Brossell, WI)

CZECH REPUBLIC — Radio Prague, **7345** at 0028 with multi-language ID, into presumed Czech at 0031. (Brossell, WI) **17485** at 1700 with IS, news. (Burrow, WA) **21745** at 1650 with frequency anmts and into discussion program. (Linonis, PA)

DENMARK — Radio Denmark, via Norway, **7470** from 0130. Also **9590** from 0230 and **7465** from 0330. (Silvi, OH)



The world may have ended before you see this photo of the Overcomer Ministry's Brother Stair. Any day now.

DOMINICAN REPUBLIC — Radio Barahona, **4930** heard at 0230 with SS talk, ID, ads, promos, LA music and abrupt sign-off at 0357. (Alexander, PA) Radio Pueblo, **5009.8** at 0200 with SS anmts, LA music, SS ballads, IDs. Off with anthem at 0237. (Alexander, PA)

ECUADOR — Radio Federacion, **4960** at 0030 with SS ballads/pops, religious recitations at 0050, local folk music. Off at 0057 with a bouncy march tune. (Alexander, PA) Radio Maria, over La Voz del Napo, **3279.5** at 0847 with long religious talk, choir vocals and ID at 0858. (D'Angelo, PA) HCJB, **9775** in RR at 0420. Also **21455** USB in SS at 0025, **//15140** (MacKenzie, CA)

EGYPT — Radio Cairo, **9475** in EE at 0310. Off at 0328. (Burrow, WA) **9900** in AA at 0330. (Brossell, WI)

ENGLAND — BBC, **15180** to North Africa at 1500 with Mideast music. (Jeffery, NY) **15190** with Sports International program at 1520. (Ray, OK)

EQUATORIAL GUINEA — Radio Nacional, **6249.4** at 2202 apparently running late with SS talk and highlife vocals. (D'Angelo, PA) Radio Africa, **15184.6** at 2110. U.S.-produced EE religious programs. Off abruptly at 2257. Slightly distorted and muffled audio. Irregular. (Alexander, PA) **15185** at 2208 with EE sermon. (Brossell, WI)

ERITREA — Voice of Peace and Democracy of Eritrea, presumed, 0312 sign-on with instrumental music, opening anmts by man and apparent news. Mostly talks with short musical segments. At 0354 familiar

Voice of the Tigray Revolution IS and sign on. **//6350** fair with some ute QRM. (D'Angelo, PA)

ETHIOPIA — Radio Fana, **6210** at 0417 in unknown African dialect. (Brossell, WI) **6210//6940** at 0505. (Lawrence, WI) **6940** from 0348 with Horn of Africa music to 0400, ID and news by man, indigenous vocals from 0410. **//6210** slightly stronger and no QRM. (D'Angelo, PA) 0400 with music and alt. man and woman talk. (Silvi, OH)

FINLAND — YLE/Radio Finland, **15400** in Finnish with news at 1232. (Miller, WA)

FRANCE — Radio France Int'l, presumed to Africa, in FF at 0345. (Linonis, PA) **6045** heard at 0525. ID in FF at 0530. (Lawrence, WI) **11705** with news in FF at 2000. (Weronka, NC) **11910** — via Gabon — at 0413. (Brossell, WI)

FRENCH GUIANA — RFI relay, **9730** in EE at 0425. (MacKenzie, CA)

GABON — Africa Number One, **15475** at 1845 in FF with African music. Off at 1900. (Linonis, PA)

GERMANY — Deutsche Welle, **3995** with news in GG at 0535. (Lawrence, WI) **15275** in GG at 1540. Also **17730** in GG at 1605. (MacKenzie, CA) Radio Africa (United Methodist Church) **9535** at 0400 with FF ID news. Some EE and tribal singing. (Paszkiewicz, WI)

GHANA — GBC, **3366** at 0523 with guitar music prior to 0530 sign-on. Drum IS and into EE. (Lawrence, WI) Also **4915** with ID at 0615. (Lawrence, WI)

GREECE — Voice of Greece, **9420** at 0405 with "Foni Tis Helladas" ID, songs in Greek. (Brossell, WI) **9420//15630//17705** at 1650 in Greek with music and talk. (Burrow, WA) **11620** with discussion in EE. (Weronka, NC) **11645** at 1837. (Miller, WA) **11865** at 0330 sign-on in Greek. (Linonis, PA) **17705** *(via Delano, CA —Ed)* in Greek at 1610 (Northrup, MO)

GUAM — KTWR/Trans World Radio, **15295** at 2035 with religious programming. (MacKenzie, CA)

GUATEMALA — Radio Verdad, **4053** at 0415 with talks, music, ID in SS. (Brossell, WI) **5042.5** at 1126. Anncr repeats the ID very slowly, clearly and deliberately each half hour, with several mentions of Guatemala and Central America. (Barton, AZ) 0320 with SS religious talks, music. (Miller, WA) La Voz de Nahuala, **3360** with music and talk in SS at 0342. (Brossell, WI) 0346. (Miller, WA) Radio Cultural, **3300** with religious programming in EE at 0343. (Miller, WA) 0503 with SS ID. (Lawrence, WI) **5955, //3300** with SS talks at 0448. (Paszkiewicz, WI) Radio K'ekchi, **4845** with religious program and talk at 1207, ID 1209. (Strawman, IA)

HAWAII — KWHR/World Harvest Radio, **9930** with ID at 1400 and into relay of Radio Free Asia. (Lawrence, WI)

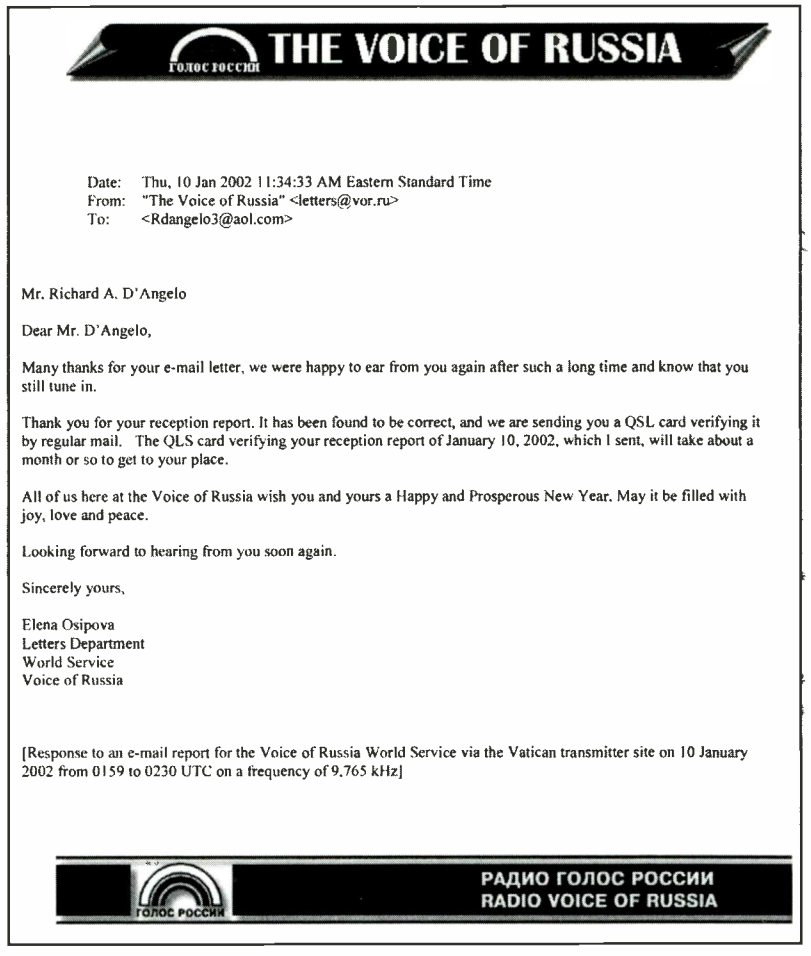
HONDURAS — Radio Misiones Internacionales/HRMI, **5010** at 0237 in reduced carrier USB. Irregular operation and audible only after Radio Pueblo, Dominican Republic signs off. SS religious talks. (Alexander, PA)

HUNGARY — Radio Budapest, **3975** at 0538 with jazz and talks in Croatian. (Lawrence, WI)

INDIA — All India Radio, Delhi, **4860** at 1255 with EE ID. Also **11715** with EE news at 2109. (Lawrence, WI) **7105**, Lucknow in unid. language at 0410. Also **9595**, Delhi, unid. language at 0130. (Miller, WA) **10330** at 1405. (Barton, AZ) **11620**, Bangalore, at 0230 in presumed Hindi. (Linonis, PA) **15770** *(Aligarh — Ed)* with traditional Indian music at 0504. (Foss, Philippines)

INDONESIA — RRI Makassar, **4754** at 1525 with woman in II and soft, slow music in background. (Foss, Philippines)

IRAN — VOIRI, **6035** with news in EE at 0045, ID at 0049 "Just a reminder that you are tuned to the Voice of the Islamic Republic of Iran." **//6135** was very poor. (lD'Angelo, PA) **9790** in AA at 0410. (MacKenzie, CA) 0430 in AA, **//11660**. (Brossell, WI) **9890// 11695//15140** in EE at 1930 with ID, anthem, schedule and music. (Burrow, WA) **11710** in AA at 0045 and off at 0127. (Lawrence, WI) **15084** in Farsi with U.S. rock. (Linonis, PA) **21545** in AA at 1007. (Foss, Philippines)



THE VOICE OF RUSSIA

ГОЛОС РОССИИ

Date: Thu, 10 Jan 2002 11:34:33 AM Eastern Standard Time
From: "The Voice of Russia" <letters@vor.ru>
To: <Rdangelo3@aol.com>

Mr. Richard A. D'Angelo

Dear Mr. D'Angelo,

Many thanks for your e-mail letter, we were happy to ear from you again after such a long time and know that you still tune in.

Thank you for your reception report. It has been found to be correct, and we are sending you a QSL card verifying it by regular mail. The QLS card verifying your reception report of January 10, 2002, which I sent, will take about a month or so to get to your place.

All of us here at the Voice of Russia wish you and yours a Happy and Prosperous New Year. May it be filled with joy, love and peace.

Looking forward to hearing from you soon again.

Sincerely yours,

Elena Osipova
Letters Department
World Service
Voice of Russia

[Response to an e-mail report for the Voice of Russia World Service via the Vatican transmitter site on 10 January 2002 from 0159 to 0230 UTC on a frequency of 9.765 kHz]

ГОЛОС РОССИИ
РАДИО ГОЛОС РОССИИ
RADIO VOICE OF RUSSIA

Rich D'Angelo got this E-mail QSL from the Voice of Russia and a promise of a "real" QSL via regular mail.

IRELAND — Radio Telefis Eireann, **13640** (via Sackville) and **//21630** (via Ascension) with int'l and Irish news at 1830. (Burrow, WA)

ISRAEL — Kol Israel, **6280** at 2000 sign-on to 2025 close with EE news, financial news, IDs. Better on **//9435**. Into FF at 2030 and SS at 2045. (Alexander, PA) **11585** in HH at 0044. (MacKenzie, CA) 0300 in HH. (Linonis, PA) 0330 with talks, ID, music. Hebrew. (Brossell, WI) **11605//17545** at 1708 with news, comment, IDs. (Burrow, WA) **17535** in HH at 1430. (Northrup, MO)

ITALY — RAI Int'l, **5970//9760** at 1935 with IS, ID, news. (Burrow, WA) **9675** in II at 0037 with anmts and extensive piano music. (Brossell, WI) **11800** opening in EE at 0055. (Barton, AZ) **21520** in II at 1230. (Linonis, PA) IRRS, **7120** at 0725 with music, barking dogs, EE ID at 0730. (Alexander, PA)

JAPAN — Radio Japan, **17555** at 1440 in JJ. (Northrup, MO) **17685** in EE with "Pop Goes Asia" at 0115. Also **17845, //17835** at 0120. **17825** in EE at 2124 and **21670** in EE at 2132. (MacKenzie, CA) **17845** going into RR at 0330. (Linonis, PA) **17685** with 0100 EE sign-on. (Lawrence, WI)

JORDAN — Radio Jordan, **9830** in AA at

2115. Also **11690** in EE at 1630 under heavy RTTY QRM. (Brossell, WI) 1609 with woman DJ and Top-40 numbers, greetings. (Burrow, WA) **11810** in AA at 1410. (Northrup, MO)

KUWAIT — Radio Kuwait, **11675** in AA at 0038. (MacKenzie, CA) **11990** in EE at 1834. (Burrow, WA) **15505** in AA at 2030. (Barton, AZ)

LAOS — Lao National Radio, **6130** at 1158 with usual gongs at 1159 and into top of hour anmt. Best signal in several weeks. (Strawman, IA)

LIBERIA — ELWA, **4760** heard at 2145 with EE religious programming, choral music, national anthem and off at 2201. (Alexander, PA)

LIBYA — Radio Jamahiriya, **15435** in AA heard at 1733. (Miller, WA)

MADAGASCAR — Voice of Hope, **12060** at 0428 sign-on with mostly EE news & interviews. //**15320**. (Watts, KY) 0427 sign-on with woman and "This is Radio Voice of Hope" for this Saturday-only transmission. Man with news in AA and children's choir. Bubble jammer in background. //**15320** fair, but in the clear. (D'Angelo, PA) Radio Netherlands relay, **9860** in DD at 0400, //**6165** and **9590** (both Bonaire) and **15560** Madagascar. (MacKenzie, CA)

MALAYSIA — Radio Malaysia, **7295** at 1628 with music, into "Radio4" ID, news, then "Daybreak 4" at 1705. (Burrow, WA)

MALI — RTV Malienne, **4782.9** at 0558 with guitar IS, music and sign on anmt by woman, Arabic songs. Also on **4835.3** at 0612. (Lawrence, WI)

MALTA — Voice of the Mediterranean, 9840 *(via Italy —Ed)* in II with time pips, into ID and EE program at 1700. (Burrow, WA)

MAURITANIA — Radio Mauritanie, **4845** at 0658 with AA prayers. (Miller, WA) 2210 in AA with local music on some type of guitar. (Lawrence, WI)

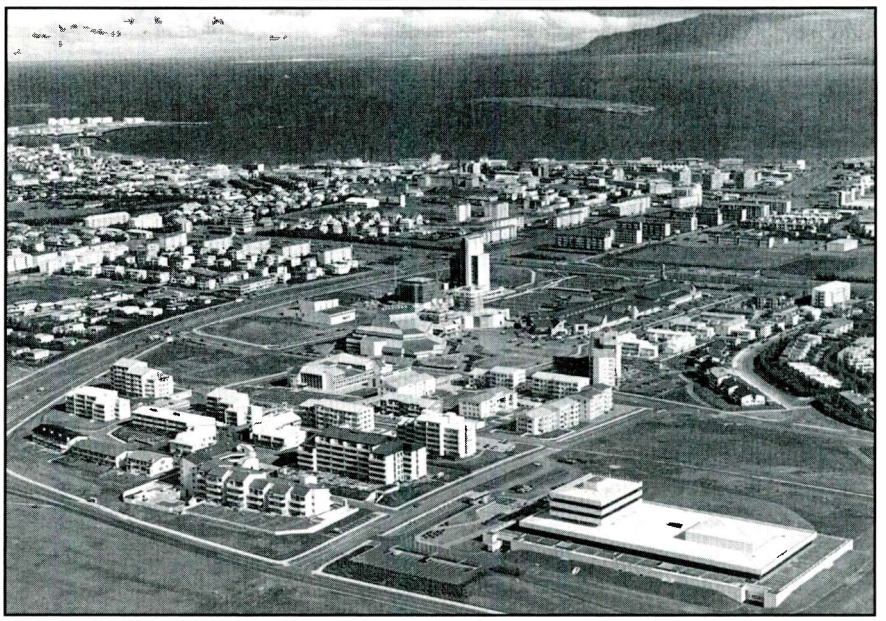
MOROCCO — RTV Marocaine, **7185** with music and anmts in AA at 0025. (Brossell, WI) VOA Relay, **9665** in AA at 0435. Also **15520** at 2027 in FF. (MacKenzie, CA) **15220** in FF at 1920 and **15240** in EE at 2125. (Jeffery, NY)

NAMIBIA —Namibian Broadcasting Corp. **3270** at 0450 with talk in EE. Off at 0500. (Lawrence, WI)

NETHERLANDS — Radio Netherlands, **17570** via Russia in DD at 0002. (Jeffery, NY) **17580** via Madagascar at 1230 in AA. (Linonis, PA)

NEW ZEALAND — Radio New Zealand Int'l, **11725** at 1648 with IS, ID, schedule, program comments and into news. (Burrow, WA) **15340** at 0400 with international news, weather, NZ news. (Linonis, PA) 0410 with "Pacific Focus." (Brossell, WI) **17675** at 0151 with "In Touch With New Zealand." (Jeffery, NY)

NICARAGUA — Radio Miskut, **5770** (reduced carrier SSB) heard at 2340 with VOA news in SS. Off at 0000 with call letters, ID, national anthem. Irregular operation. (Alexander, PA)



Let's hope we don't lose shortwave broadcasts from the Icelandic National Broadcasting Service, based in the center of Reykjavik.

NIGERIA — Voice of Nigeria, **7255** at 0637 with talk on environment, program highlights, ID, music. (Burrow, WA) **15120** at 1913 with EE ID, music, news feature. (Jeffery, NY) 2020 with report on an attempt to assassinate the Prime Minister. (Brossell, WI) *(Wonder if Mr. Rather covered that item? — Ed)* Radio Nigeria, Kaduna, **4770** with local music at 0556. (Lawrence, WI)

NORTH KOREA — Voice of Korea, **9335** at 1546. Peace-loving comments from the DPRK. (Burrow, WA) **11710** at 1635 "Ici La Voix du Korea" and into FF. (Brossell, WI) 0315 in EE. (Linonis, PA) Korean Central Broadcasting Station, **2850** in KK at 1544 with woman vocal, chorus. (Foss, Philippines)

NORTHERN MARIANAS — VOA Relay, Tinian, **15395** at 1447 in EE. (Lawrence, WI)

NORWAY — Radio Norway, **7470** presumed last day broadcast but heard different programs at different times. From 0100 — 0125 on **7470//9495** heard the" English friendly" broadcast. From 0200–0229 on **7470//9590** mostly American blues music, mostly sung in EE and from 0300–0325 on **7465** jazzy female vocals. (Silvi, OH) **17525** with IS and opening in NN at 1500. (Barton, AZ) *(Some — not all — Norway frequencies are now carrying domestic networks on the hour. If you speak Norwegian this ought to be just as welcome as an international service, maybe more so — Ed)*

OMAN — BBC relay **11955** with news analysis at 0226. (Lawrence, WI) **15310** with a speech at 0300. (Linonis, PA)

PAKISTAN — Radio Pakistan, **11570//15100** at 1600 with EE news. Off abruptly at 1614. (Burrow, WA)

PARAGUAY — Radio Nacional, **9735** heard at 0145 in SS. (Miller, WA)

PAPUA NEW GUINEA — NBC Port Moresby, **4890** at 1200 with local news in EE and Pidgin. (Linonis, PA)

PERU — Radiodifusora Huancabamba, **6536** at 0115 with OA folk music, IDs, SS anmts. Irregular. (Alexander, PA) Radio Ondas del Rio Mayo, **6797.5** at 0105 with rustic OA folk music, SS anmts, many IDs. Abrupt sign-off at 0158. (Alexander, PA) Radio La Voz de Campesino, **6956.7** at 0030. Not on every night. SS anmts and OA folk music, ID. Off with national anthem. (Alexander, PA)Radio Neuva Cajamarca, presumed, **5865** at 0330 in SS with pop Latin music and some classical guitar. (Linonis, PA) Radio Maranon, **4834.9** at 1055 with lively OA vocals, ID at 1059 and talk in SS. 1100 TC and ID, then man/woman and news. (D'Angelo, PA)

PHILIPPINES — Radio Veritas Asia, **9660** at 1510 with RR talk, classical music, bells and EE/RR IDs. (Paszkiewicz, WI) Radio Pilipinas, **15190** in Tagalog at 1837. (Burrow, WA) VOA relay, **11760** with news at 2305. (Brossell, WI) **11925** in unid language at 0018. Also **17735** at 2138 and **17765** in CC at 0050. (MacKenzie, CA) **17765** in CC at 0018 and **17820** in EE at 2238. (Jeffery, NY)

PUERTO RICO — AFRTS, **6458.5** heard at 0435. Topic: How to de-ice an aircraft. (Lawrence, WI)

ROMANIA — Radio Romania Int'l, **17805** in possible Romanian at 1510. (Northrup, MO)

RUSSIA — Voice of Russia, **13665** with Commonwealth update at 0215. (Lawrence, WI) Radio Central, **5925** at 0305 with test program. (Silvi, OH) Magadan Radio, **9530** in RR at 0440. (MacKenzie, CA)

RWANDA — Deutsche Welle relay,

13780 in GG at 2314 and **17835** in EE at 2122. (MacKenzie, CA) **15145** in FF at 1600. (Miller, WA)

SAUDI ARABIA — BSKSA, **11935** in AA at 2050. (MacKenzie, CA)

SAO TOME — VOA relay, **4960** in EE to 0630 sign-off. (Lawrence, WI) **11915** in unid. African dialect at 0415. (Brossell, WI)

SEYCHELLES — FEBA, **11640** with ID, IS and off at 0330. (Brossell, WI) BBC relay, **11730** at 0300. (Linonis, PA0

SINGAPORE — BBC relay, **15360** with news items at 0015. (Brossell, WI) 17790 at 0200. (Lawrence, WI) Radio Corporation of Singapore, **6150** at 1416 old pops. (Foss, Philippines) **7235** in Malay with pops at 1425. (Barton, AZ)

SLOVAKIA — Radio Slovakia Int'l, **7345** ending EE at 1756. (Burrow, WA) **13715** at 2320 in SS. (MacKenzie, CA)

SOLOMON ISLANDS — SIBC, **5020** at 0850 with local pop music, talks, prayer. (Alexander, PA) 1210 with interview. (Linonis, PA)

SOUTH AFRICA — Channel Africa, **17870** in EE at 1704 with news, ID. (Burrow, WA) Adventist World Radio, **12080** in unid African dialect at 0419. (Brossell, WI) **15225** at 0527. Multi-lingual IDs at 0529 and into program in an African language. (D'Angelo, PA) **15295** in EE from 2000 to 2100. (Silvi, OH)

SOUTH KOREA — Radio Korea Int'l, **5975** in EE at 1650. (Burrow, WI) **15575** in EE from 0200–0300. (Silvi, OH)

SPAIN — Radio Exterior de Espana, **11945** in SS with news at 2310. Also **15110** in SS at 2015. **//15125, 17850**. (MacKenzie, CA) **21610** in SS at 1245. (Linonis, PA) **21700** in SS at 1635. (Northrup, MO)

SRI LANKA — SLBC, **11905** in unid. language at 0035. (Paszkiewicz, WI) 0041 with music. (Miller, WA) **15425** at 0300 with instrumental music, "Way of God" program. (Linonis, PA) Deutsche Welle relay, **11985** in RR at 0012. (MacKenzie, CA)

SWEDEN — Radio Sweden, **17505** in Swedish at 1700. (Northrup, MO)

SWITZERLAND — Swiss Radio, **9575** (via?) at 1422 in EE, not AA and FF as listed in references. (Barton, AZ) **9605** *(via Julich — Ed)* at 1629 with ID, web URL and into Italian. (Burrow, WA) **17660** via French Guiana, into GG at 2030. (Brossell, WI; Lawrence, WI)

SYRIA — Radio Damascus, **12085** with news, ID, music at 2030. (Burrow, WA)

TAIWAN — Radio Taipei Int'l, **9680** via WYFR in CC at 0430. Also **11985** at 0010. (MacKenzie, CA) **11550** in EE at 1635. (Burrow, WA) **15265** in EE at 1430. Into presumed CC at 1500. (Silvi, OH) 1435 with mailbag program. (Barton, AZ) CBS, **11635** in CC at 2240. (Brossell, WI) Family Radio/WYFR via Taiwan, **15060** in unid/. language at 0004. (Jeffery, NY)

TANZANIA — Radio Tanzania Zanzibar, **11734** in presumed Swahili heard at 2004. (Brossell, WI)

THAILAND — Radio Thailand, **9535** in EE at 2032 with schedule, IS, ID, news. (Burrow, WA) **11850** in Mandarin to abrupt close at 1329. (Barton, AZ) **13695** at 0045 with woman anncr, business news. (Brossell, WI) 0050 with news and discussion. (Weronka, NC) BBC relay, **17616** at 0007. (Jeffery, NY)

TURKEY — Voice of Turkey, **7125** at 1928 with IS, ID, time pips, ID and news. (Burrow, WA) **11835** in TT at 1415 and **17570** in AA/TT at 1440. (Northrup, MO)

TUNISIA — RTT Tunisienne, **7110** in AA at 0412. (Miller, WA) **9720** in AA at 0345. (Brossell, WI) 12005 presumed at **1900** in AA to 2158 close. Music, talk and phone calls. (Silvi, OH)

UNITED ARAB EMIRATES — UAE Radio, Dubai, **13675** with news, weather at 0332. (Burrow, WA)

UNITED STATES — WWRB (ex — WWFV, ex WGTG) **9320** with tests of a new antenna at new location in Manchester, TN to close at 2200. (Clifford Dunning)

UKRAINE — Radio Ukraine Int'l, **7285//7375** at 0944 with "Close-up" program. (Burrow, WA)

UZBEKISTAN — Radio Tashkent, **5060** at 1320 with music and frequency info. (Lawrence, WI) **11905** at 2130 with news, comment, local pops, IDs (Alexander, PA) Vatican Radio relay, presumed, **15315** at 1634 in unid. lang. (Jeffery, NY)

VATICAN — Vatican Radio, **6205** in Croat 2230–2245. (Alexander, PA) **9605** in SS at 0115. (MacKenzie, CA) **15235** at 1230 in CC. (Linonis, PA) **13765** at 1550. (Barton, AZ) Voice of Russia relay, **9765** at 0159 with Vatican IS, then into VOR opening and anmts, news in EE. (D'Angelo, PA)

VENEZUELA — Ecos del Torbes, San Cristobal, **4980** in SS at 0350. (Miller, WA)Radio Amazonas, **4939.5** heard at 0355 with LA music, SS talk, phone talk, ID. (Alexander, PA)

VIETNAM — Voice of Vietnam, **9730** in EE at 1820. (Burrow, WA) **12020** in VV at 2310. (Brossell, WI) **13740** in unid language at 0441. (Foss, Philippines) Lao Cai Broadcasting Station, **5597** in VV at 1343 with very domestic sounding music. (Foss, Philippines)

YEMEN — Republic of Yemen Radio, **9780.3** at 1825 in EE with pops, news, Internet address and ID. Anthem at 1858 and into AA. (Burrow, WA)

ZAMBIA — ZNBC, **6265** at 2352 with tribal music, ID and news at 0000. On late. (D'Angelo, PA)

And that's "finis" for this time, except to toss roses in the paths of the following who took the time to do the good thing this month: Richard D'Angelo, Wyomissing, PA; Robert Brossell, Pewaukee, WI; Jack Linonis, Hermitage, PA; Mark Northrup, Gladstone, MO; Brian Alexander, Mechanicsburg, PA; R.C. Watts, Louisville, KY; Mike Lawrence, Omro, WI; Stewart MacKenzie, Huntington Beach, CA; David Weronka, Benson, NC; Lee Silvi, Mentor, OH; Rick Barton, Phoenix, AZ; Marty Foss, Guinayangan, Philippines; Bruce Burrow, Snoqualmie, WA; Dave Jeffery, Niagara Falls, NY; Jerry Strawman, Des Moines, IA; Sheryl Paszkiewicz, Manitowoc, WI; Clifford Dunning (state unknown) and Gene Ray, Tulsa, OK. Thanks to each one of you.

Until next month — good listening!■

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1994 1995 1996 1997 1998 1999 2000 2001 and now... the 2002 CQ calendars

better than ever, all digitally photographed, and still 15 months of value.

The new 2002/2003 CQ Radio Classics Calendar features fifteen magnificent photos of some of the memory-jogging, heart-tugging gear that so many of us treasure or aspired to years ago. (Publisher's Note: They're making antiques a lot newer than they used to!) This year's Radio Classics Calendar features some of the great equipment of the '50s and '60s, with a smattering of the 1940s and 1930s.

Here's what's featured this year:

Collins 75S-3 Receiver, 1961; Lakeshore Bandhopper VFO, 1957; Gonset Commander II Mobile HF Transmitter, 1955; Gonset 913A 6 meter amplifier, 1964; Technical Materiel Corporation (TMC) GPR-92 Receiver, 1964; Hammarlund HQ-170 Receiver, 1958; McElroy Model 100 Straight Key, 1941; Sonar XE-10 Modulator, 1947; National NC-300 Receiver, 1955; Hallicrafters S-85 Receiver, 1954; Heathkit SB-500 VHF Transverter, 1969; Sideband Engineers SB-34 Transceiver, 1965; Swan 400 Transceiver, 1964; Drake TR-3 Transceiver, 1963; Utah UAT-1 Transmitter, 1937.

How many do you recognize? How many did you own? How many did you wish you owned?

The 2002/2003 CQ Amateur Radio Calendar brings you fifteen spectacular digital images of some of the biggest, most photogenic Amateur Radio shacks, antennas, scenics, and personalities. These are the people you work, the shacks you admire, the antenna systems you dream about having, all digitally captured by the talented Larry Mulvehill, WB2ZPI, CQ's own roving cover photographer. Larry's travels this year took him to Colorado, Montana, Wyoming, Texas, Florida and New York, capturing some of the greatest Amateur Radio photos of the year especially for this annual favorite calendar. From winter scenes of the frosty northeast to pedestrian mobile in the Rockies, you'll love this traveling Amateur Radio photo show.

All calendars include dates of important Ham Radio events such as major contests and other operating events, meteor showers, phases of the moon, and other astronomical information, plus important and popular holidays. The CQ calendars are not only great to look at, but they're truly useful, too!

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technology showcase

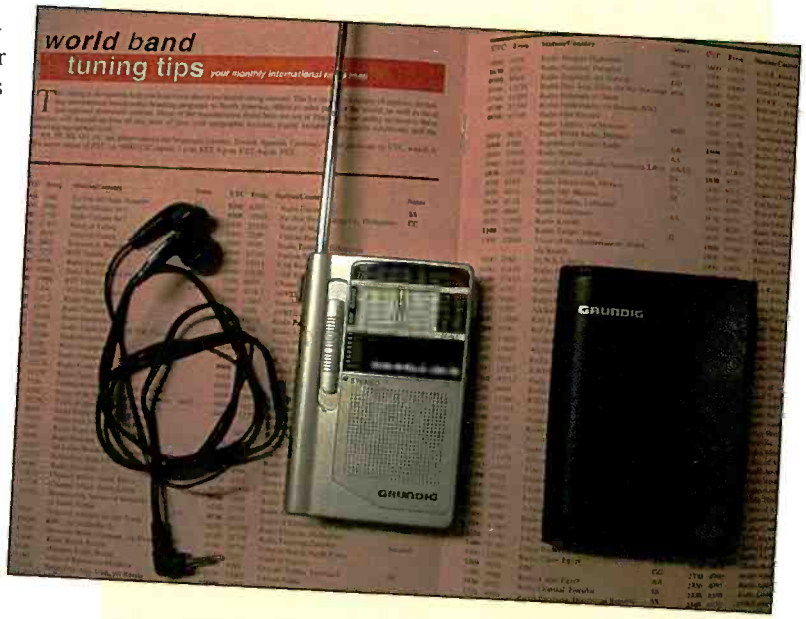
new product performance analysis

by Rich Moseson, W2VU
<w2vu@cq-amateur-radio.com>

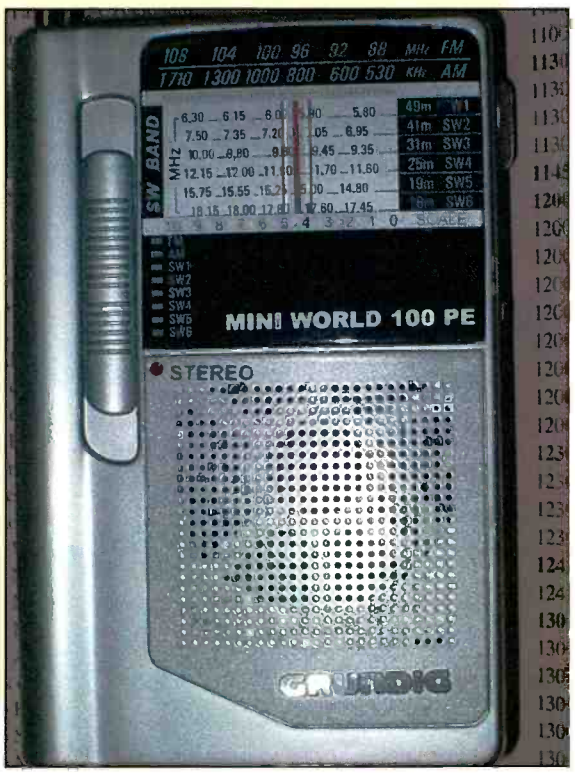
A Tiny Radio With Big-Rig Performance

In the growing debate over the relative values of delivering a "broadcaster's" message over the radio or over the internet, one argument in favor of "real radio" is that a radio receiver may be used virtually anywhere, without the need for a computer or an internet connection. Grundig has taken this argument to a new level with its tiny, ultra-portable Mini World 100 PE AM/FM/Shortwave receiver. This shirt-pocket radio is just four inches high, two and a half inches wide and one inch deep, and comes with a belt clip, leather-like vinyl carrying pouch and dual earbud earphones (along with a built-in speaker) for complete portability.

The 100 PE is an eight-band radio, covering the FM and AM (to 1710 kHz) broadcast bands, plus the 49-, 41-, 31-, 25-, 19, and 16-meter shortwave broadcast bands. It features an analog slide-rule tuning dial, which I consider a plus in certain situations, such as sitting in a hotel room and tuning around to see what you can find, and a built-in telescoping whip antenna. It runs on two AA batteries.



The pocket-sized Grundig Mini World 100 PE includes earbud headphones and a leather-like vinyl case.



The Mini World 100 PE features an analog tuning dial and covers six shortwave bands plus AM and FM.

Big-Rig Performance

I was pleasantly surprised by the big-rig performance of this little radio. I first put it to the test during a school demonstration of shortwave radio, turning it on after the bigger receiver I'd brought tuned in mostly buzz from the fluorescent lights in the classroom. The 100 PE wasn't bothered by the lights and we were able to tune in several international broadcasters.

My next test was on a trip to South Florida. I was hoping to catch some of the Caribbean broadcasters that are normally hard to copy at my home in New Jersey. I was quickly rewarded with Radio for Peace International, which broadcasts from Costa Rica, along with several simultaneous opportunities to hear the competing viewpoints of Radio Havana Cuba and the U.S.-sponsored Radio Marti. I also tuned in Deutsche Welle from Germany, the BBC, Radio Canada, a variety of Spanish and religious broadcasters and a very strong signal from the Voice of Russia (formerly Radio Moscow), including a commentary on the possible benefits of global warming.

A Little Drift

The only negatives I noted about the 100 PE are its tendency to drift slightly — making it necessary to keep making minor tuning adjustments, even on strong signals — and the fact that your body becomes part of the antenna while you're holding the radio. This is great as long as you're holding the radio (wrap

your left hand tightly around the radio on the antenna side), but you'll often lose even a relatively strong signal as soon as you put down the radio and move your hand away. This is a problem you'll find on virtually any shortwave radio with a small antenna, and these two negatives are really minor inconveniences compared with the benefits offered by this very portable radio.

Will it ever tune in low-power broadcasters from very faraway locations? Doubtful. But it's not a dyed-in-the-wool-DXer's monitoring post radio. It's a put-it-in-your-pocket, go-anywhere, listen-anytime radio that will keep you in touch with the world whether you're in a hotel room or a classroom, at the pool or at the beach (try to keep it dry), and certainly in many, many places where an internet connection is next to impossible.

Oh, one other thing: The Grundig Mini World 100 PE won't set you back financially. It lists for $39.95 and is available at radio and specialty stores, including *Pop'Comm* advertisers Universal Radio (http://www.universal-radio.com) and the Shortwave Store (http://www.usa.shortwavestore.com for U.S. customers; www.shortwavestore.com in Canada). ■

plane sense

your link to global aviation communications monitoring

By Bill Hoefer <flacap388@prodigy.net>

Lakeland's Sun-n-Fun

A look at a German kit plane.

Contributing magazine editors can be conceived as a strange lot. We have to write articles that have to be current two to three months in advance. This is the May issue, being written in February, but will be delivered by mail or on the news stands in April. Therein lies the "fun." My job is a little more difficult since September 11. Much of what I come up with for your perusal can be outdated within a couple of days of Harold getting it because of the changes in Federal law that affects the flying public. Also, attempted hijackings make the news with people asking me questions about them. Obviously I cannot discuss certain aspects of them. My hands are tied.

I wanted to get information to you for both of the normal back-to-back aviation air fests in central Florida — Sun-n-Fun at Lakeland (LAL) and MacDill AFB (MCF) open house. Already scheduled for this year's MacDill open house was the USAF Thunderbirds, but due to the last eight months of operations in Afghanistan and heightened security in all military fields and bases, the MacDill open house was cancelled in early February. In addition to the "normal" heightened security, the fact that the U.S. Southern Command (SoCom) is headquartered at MacDill makes not only security for U.S. military assets as well as physical security for the civilian populace visiting the base virtually impossible at best. I have not heard of other open houses elsewhere being closed.

Last year I was fortunate to work at the "Sun-n-Fun" temporary flight service station at Lakeland (FL) Linder Regional Airport (LAL). I am, indeed, fortunate to be picked for the station again this year. We have a limit of two consecutive years in attendance, so I won't be working there in 2003.

The information I'm submitting about this year's Sun-n-Fun is based on last years Notice to Airman (NOTAM). The majority will still be correct for this year's air fest, but check on line at: www.faa.gov for the latest information.

This year's Sun-n-Fun will be held April 7–13 (as this magazine comes out). Lakeland airport will be closed daily from 2 to 6 p.m. for air shows. One day, as of this writing unknown, normally has an after sunset show from 7 to 10 p.m.

This is when your scanner can really overheat monitoring all the frequencies. There are two automated terminal information service frequencies in use at Lakeland — arrival on 135.15 and departure on 118.025. Aircraft coming in over Lake Parker are required to be on 124.5.

Lakeland tower is using two local control frequencies — 127.7 for aircraft north of Lakeland and 135.9 for aircraft to the south. They will also be using two ground control frequencies — 121.7 for instrument flight rules (IFR) aircraft and 121.4 for all others. Hint: when the local controller tells a pilot to contact ground on "point seven" or "point four" it is always in the 121MHz segment. So "point seven' means 121.7 and "point four" means 121.4. This is true at all controlled airports in the U.S.

Ground advisories will be on 126.4 for most aircraft and 119.25 for warbirds. Those of you lucky enough to have a UHF aviation capable scanner can monitor 380.25 for various military aircraft transiting the area.

Plant City (PCM) will have a temporary control tower operating from April 5 to 10 at 8 a.m. to 4 p.m. Their frequency is 127.6. Other times you can listen in on 123.0.

Also you might be able to hear me on 122.05 at the Lakeland Temporary Flight Service Station.

For the latest information on Sun-n-Fun go to: http://sun-n-fun.org/content/splash.asp or the U.S. airspace in general go to: https://www.notams.faa.gov/.

Current NOTAMs

(Beginning this month I'll only be including NOTAMs that deal with frequency changes unless something out of the ordinary appears.)

Anchorage 1/1109 — VALDEZ CLASS E AREA EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE, PURSUANT TO 14 CFR SECTION 91.137A(2), TEMPORARY FLIGHT RESTRICTIONS ARE IN EFFECT FOR THE VALDEZ CLASS E AREA. THE VALDEZ CLASS E AREA IS DEPICTED AS THE ENCLOSED AREA BOUNDED BY THE MAGENTA 700 FEET BORDER ON THE ANCHORAGE AERONAUTICAL SECTIONAL CHART AND IS DEFINED AS THE 6.6 NM RADIUS OF THE VALDEZ AIRPORT AND WITHIN 3.1 NM EACH SIDE OF THE VALDEZ

LOCALIZER FRONT COURSE EXTENDING FROM THE 6.6 NM RADIUS TO 21.6 NM SOUTHWEST OF THE AIRPORT. ALTITUDES: SURFACE UP TO AND INCLUDING 8,000 FEET MSL. TIMES: 24 HOURS/7 DAYS A WEEK ALL AIRCRAFT ENTERING OR DEPARTING THE VALDEZ CLASS E AREA SHALL CONTACT JUNEAU AFSS VHF 122.2, 122.4 OR 122.55 WITH THEIR CALLSIGN, POSITION, ALTITUDE, AND ROUTE OF FLIGHT. THE NO FLY AREA IS DEFINED AS ONE (1) NM RADIUS CIRCLE CENTERED ON THE 651 FEET MSL (300 FEET AGL) RADIO TOWER LOCATED AT THE VALDEZ OIL TERMINAL. THIS TOWER IS DEPICTED ON THE ANCHORAGE AERONAUTICAL SECTIONAL CHART AND IS LOCATED AT LAT. 61 05' 06 N LONG. 146 23'19" W. AIRCRAFT WITH NO RADIO CAPABILITY: PRECOORDINATE WITH JUNEAU AFSS ON TIMES, ALTITUDES, AND ROUTE OF FLIGHT. THE FAA COORDINATION FACILITY IS JUNEAU AFSS.

Miami 0199/01—- GREATER INAGUA SECTOR (MYIG) FREQ 123.775 VICE 129.92.

New/Changed/Deleted Frequencies

New

AL
Huntsville — Madison County Executive (MDQ)
AWOS-3 120.0

Mobile Regional (MOB)
ATIS 257.85

KY
Fort Knox — Godman AAF Airport (FTK)
CTAF 233.7

MD
Ridgely Airpark (RJD)
AWOS-3 120.225

OR
Newport Municipal (ONP)
Apch (ZSE ARTCC) 125.8/291.7

TX
Granbury — Pecan Plantation Airport (0TX1)
Unicom 123.05

UT
Kanab Municipal (KNB)
Apch (ZLA ARTCC) 124.2/343.6

Changed

CA
Mountain View — Moffett Federal Airfield (NUQ)
LC was 353.2, now 346.25

FL
Milton — Whiting Field NAS — North (NSE)
CD was 354.8, now 274.7
Valparaiso — Eglin AFB (VPS)
Pensacola Apch was 125.1, now 124.05

MI
Mackinac Island (Y84)
Green Bay FSS RCO was 122.5, now 122.35

OK
Enid — Vance AFB (END)
LC was 257.2, now 253.725

TX
Fort Worth ARTCC (ZFW)
Site Lubbock was 127.7/362.3, now 132.6/269.05

Deleted

FL
Lakeland Linder Regional (LAL)
National Guard Ops 241.0
National Guard Ops 40.9 MHz

OR
Newport Municipal (ONP)
McMinnville FSS 122.5

New/Changed/Deleted/Abandoned Airport ID's

New

PA
Birdsboro — Glenn's Helo Heliport — 4PN9
Bradford — Sam's Field Ultralight — 6PN5
Ivyland — Jarrett Airport — 5PN7

The Yakolev 9, a WWII aircraft, still being manufactured for the Western market.

Lancaster — LGH Women and Babied Hospital Heliport — 6PN2
Rouzerville — Bittner-Whitsel Airport — 5PN5

Changed

AL
Huntsville — Madison County Executive Airport was M82, now MDQ

CO
Englewood — Swedish Medical Center Heliport was 9V8, now 15CO

FL
Miami — Southeast Bank Operations Center Heliport was 87X, now 0FA2

ID
Cayuse Creek/USFS/Airport was S74, now 2ID7

MD
Ridgely Airpark was 1N0, now RJD

MS
Rolling Fork — Rollang Field Airport was RFK, now 5MS1

MT
Missoula — Community Medical Center Heliport was 7U3, now 2MT3

NC
Enfield — Dunroamin Farms Airport was 4W2, now 76NC
Fayetteville — Beard Heliport was 18W, now 73NC
Fuquay/Varina — Fuquay/Angier Field Airport was 4W3, now 78NC
Garland — Brinks Airport was 20W, now 74NC
Louisburg — Ball Airport was 4W5, now 79NC
Middlesex — J W Stone Airport was 33W, now 75NC
Pollocksville — Bell Street Airport was 39W, ow 75NC
Warrenton — Warren County Airport was 6W1, now 81NC
Winnabow Airport was 55W, now 77NC
Winston-Salem — Blevin's Private Airport was 56W, now NC38

OR
Lake Oswego — Wiley's Seaplane Base was 3S1, now 2OG3
Tigard — Meyer Riverside Airpark was 5S3, now OG34

PR
Bayamon Regional Hospital Heliport was X62, now PR33

SC
Clinton — Carolina Cow Country Airport was 1A4, now 17SC
Cross Anchor — Southern Aero Sports Airport was 03A, now 16SC
Greer — O'Neal Field Airport was 8A8, now 20SC
Newberry — Sexton Airport was 59A, now 19SC
Silverstreet — Connelly Field Airport was 3A5, now 18SC

TN
Columbia — Hunter Stolport was M10, now 06TN
Covington — Thurmond Glenn Field Airport was 49M, now 05TN
Vonore — Corntassel Airport was TNAA, now 07TN

WA
Harrington — Hanes Airport was 21S, now 3WA2
Port Orchard Airport was 0S8, now 4WA9
Tacoma — Clover Park Technical College Airport was S37, now 6WA8

Deleted/Abandoned

TX
Nacogdoches — Just Plane Fun Airpark Inc. (TE52) ■

technology showcase

new product performance analysis

by Harold Ort, N2RLL, Editor

Emergency Need-To-Know Info At Home, Or On-The-Go

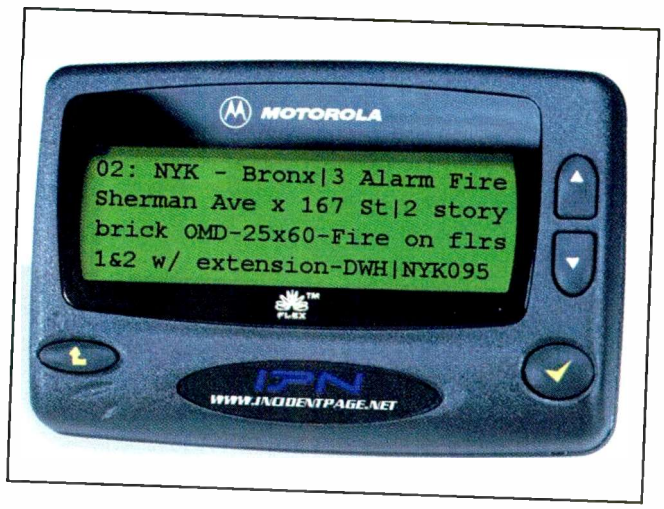
Picture this scenario: You're Mr. or Ms. Radio — always aware of local, regional, and even national happenings even before the media gets the news. Your scanner is your constant companion — always buzzing with activity.

But what happens to your VHF/UHF scanning when you're 500 or 1000 miles away from home, on vacation or a business trip? The quick, simple answer is that you're out of luck — until now. Enter IncidentPage.Net, a great new way to stay in touch anywhere you go. All you need is access to your E-mail, or if you'd prefer, an actual personal pager.

As I type this review our local volunteer fire department siren is sounding. My PRO-2006 scanner just stopped on the fire frequency, then on the police frequency, instantly capturing where the call is, and what's happening on the scene.

Similarly, when the events of September 11 unfolded in lower Manhattan — about 12 or so miles line-of-sight away —we were glued to the TV and scanner for what seemed like days. I didn't check my E-mail for a couple of days, but when I did there were dozens and dozens of IPN notifications direct from the scene, relayed to IPN by scanner enthusiasts — including many public safety professionals — all direct to my E-mail box!

Being so close to New York City, several major airports, highways, bridges, and tunnels, I've set my IPN parameters to give me *instant* postings regarding fires, major accidents, plane crashes, Hazmat incidents, and even weather bulletins. If my scanner is off it doesn't matter, as I'm still informed, and if I want, I can always turn on the radio and take it from there! You see, each IPN posting typically includes the frequency, as you see from the Five Alarm fire for the World Trade Center incident on September 11.



IPN pagers can keep you in touch wherever you go.

Making It Work For You

Go ahead, turn on the computer and go to www.Incidentpage.net and check out the Breaking News ticker near the top of your screen. These are actual incidents in real time as IPN is sending them to subscribers. "Subscribers," you're probably thinking — and what does a service like this cost? Turns out, it's less than a cheeseburger and fries! You're looking at a whopping $4 (U.S.) per month. That gets you complete U.S. and even international coverage. I've got mine programmed for Toronto, Canada; certain cities in upstate New York and Florida.

In a word, the IPN service is outstanding. Make that extremely outstanding! Got a relative in a distant state? When you set up your IPN account with your own user name and password you pick the state and type of notifications YOU want. You're not tied down to preprogrammed incident notifications that you can't change. And best of all, you can change your selections as often as you want. Turn on all of the events IPN alerts you about, or turn on only one or two. Changing your personal settings is a breeze — there's no complicated or long drawn out cumbersome web pages to scroll through; a couple of clicks and you've completely updated your IPN incident selections.

(Continued on page 76)

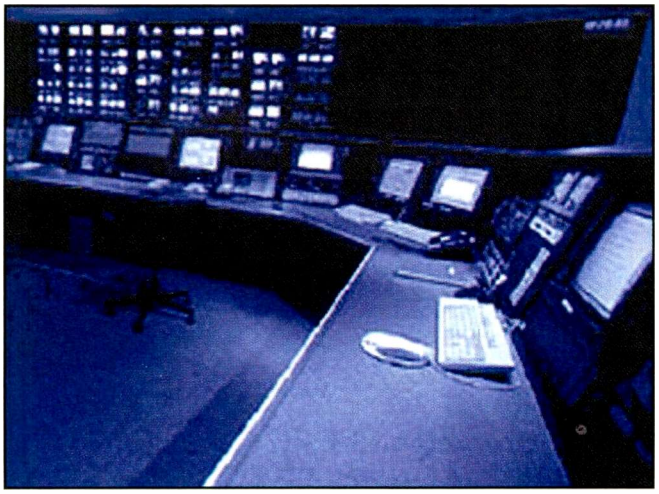
Subj:
Date: 09/11/2001 8:51:35 AM Eastern Daylight Time
From: IPN@IPN911.net (IPN)
Reply-to: IPN@IPN911.net
To: Popularcom@aol.com (NJY072)

NYK| Manhattan| Mass Casualty| 470.8375| World Trade Center|Plane Crashed Into World Trade Center -| NYK064| 08:50

An actual E-mail from September 11, 2001.

by Joe Cooper <ur-review@provcomm.net>

Profile Of A Modern Radioman



Today's modern communications station represents the integration of conventional radio and modern computer technology. However, it was only three years ago that radiomen stopped using their CW keys in North America.

If you remember a few issues back, I profiled the historic commercial radio station KPH on the West Coast of the United States. Located near San Francisco, the KPH sending and receiving site is now owned by the United States through the Park Service, and is being restored to its original condition.

Once the site of Marconi's Pacific radio station, KPH was significant as it was the last North American commercial HF station to stop using CW. This historic event took place very recently, on July 12 1999.

What has come to my attention since writing that column was that on the day that KPH "went dark," several other CW stations being operated by the same company as KPH were also shut down at the same time during a special ceremony. What made KPH's status special for that day was the fact that it also received the last official CW message via a commercial station in North America. That was a message was sent from the Liberty Ship *SS Jeremiah O'Brian* to then President Clinton.

The final message was this:

PRESIDENT BILL CLINTON
WASHINGTON DC
DEAR PRESIDENT CLINTON X
HISTORY IS MADE ON THIS DAY AS WE EMBARK ON A NEW ERA OF
MARITIME COMMUNICATION X THIS OCCASION MARKS THE CLOSURE
OF SHIP-TO-SHORE RADIOTELEGRAPH OPERATIONS FROM THE LAST
FOUR COMMERCIAL COASTAL STATIONS IN NORTH AMERICA STILL
USING THIS TIME HONORED MEDIUM ON JULY 13 AT 0000UTC X PLEASE
ACCEPT THIS FINAL RADIOTELEGRAPH MESSAGE FROM THE LIBERTY
SHIP SS JEREMIAH OBRIEN IN SAN FRANCISCO AS A TOKEN OF THIS
HISTORIC EVENT X BEST REGARDS
SS JEREMIAH OBRIAN/KXCH

The message was sent by Rod Deakin, the radio officer for the *SS Jeremiah O'Brian* and received at the Global Wireless Half Moon Bay receiving station, where it was transcribed and sent over the Internet by E-mail to the Whitehouse — an obvious indicator of where the world of communications has evolved at this time in history.

In this column I will be profiling one of the radiomen who was manning the keys of the four commercial stations that day: Walter J. Kane III, who is presently vice president of sales for Global Wireless. I encountered Mr. Kane's history at his personal website, and with his kind permission I have used that material here for this column.

What I will be doing is using this story as a bridge into a new series of columns looking at what is taking place in today's modern commercial radio service. As you will see, computers and computer networks are the backbone of 21st century radio communication.

In addition to his story we also have logs and letters. You will be pleased to note that the content of the logs are still very exciting and interesting. I hope you will agree that even if we follow the letter and spirit of the laws regarding radio monitoring faithfully, there is still a lot to share and report that is of value.

So, enough of the housekeeping duties, on to a very interesting story about a very interesting radioman! So let's tune in and find out how Walter came to be at the key on that historic day three years back when the dits and dats of commercial radio communication finally left the air for good.

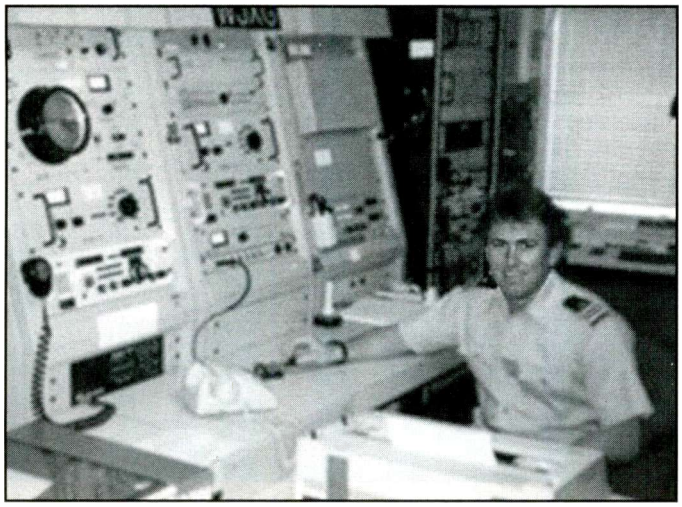
Life Of A Radio Operator

Walter J. Kane's III career in marine radio communications is typical of those whose career spans the last three decades of the 20th century. Here is a summary of his career, which began in 1973 when he joined the U.S. Coast Guard as a Radioman.

In 1978, Walter obtained his FCC Third-Class Radiotelegraph license and found employment at RCA's Chatham Radio (WCC). By September 1979, Walter had earned his FCC First-Class Radiotelegraph license with RADAR endorsement and his USCG Merchant Marine Officer license.

Over the next 13 years, Walter served as a Radio Officer aboard numerous U.S. flag merchant vessels, and worked as a coast station operator at WSC and KLC. In April 1993, Walter joined Globe Wireless as a coast station operator.

His first assignment for Global Wireless was at the CW Super Station, located in Half Moon Bay, California, where he remotely controlled transmitters and receivers for WCC, WNU, KPH and KFS. Additionally, he served as a field service technician,



Radioman Walter J. Kane III manning the CW key on board U.S. Coast Guard Cutter Ingham. *The picture was taken during the mid-1970s.*

installing Globe E-mail systems on various vessels.

In May 1999, Walter was awarded the "Marconi Memorial Gold Medal of Achievement" from the Veterans Wireless Operators Association in recognition of "his alertness to radio signals that saved a life at sea."

Walter currently oversees the Americas regional sales office located in Louisiana as vice president of sales. He and his wife Maggie reside in Picayune, Mississippi with their daughter Colleen Michelle.

What Does A Coast Guard Radioman Do?

When Walter joined the Coast Guard his first seaboard assignment was aboard the *Cutter Ingham* (see Sidebar 1 for more information on that ship). As a Radio Officer his primary responsibility was Safety of Life at Sea (SOLAS). The international Maritime Organization (IMO) and the International Telecommunication Union (ITU) initiated the concept of SOLAS as a direct result of the tragic sinking of the vessel Titanic in 1912.

After that tragedy a manual ship-to-ship distress and safety system was developed which relied primarily on Morse Code radio-telegraphy on 500 kHz and voice radio-telephony on 2182 kHz. While at sea, the R/O (Radio Officer) maintained a distress frequency guard on 500 KHz and 2182 kHz during his hours of watch. Typically, the watch hours were 0800–1100, 1300–1600 and 1800–2000. During the R/O's off watch hours, the vessel's 500 KHz automatic alarm receiver is activated.

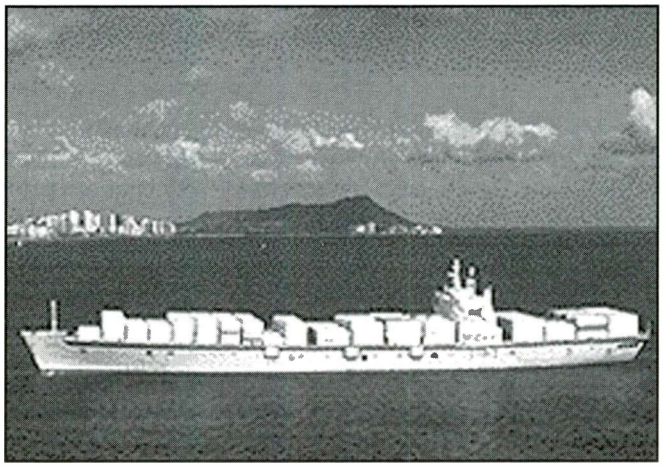
This automatic alarm responded to distress signals and alerted the R/O by ringing bells in his stateroom, the Shack and on the navigation bridge.

In the event of an actual distress signal received, it was the R/O's duty to copy all message traffic relative to the distress incident and notify the Master and bridge, keeping them informed of the progressing event. The R/O could, if necessary, participate in the actual distress communications by acting as a radio relay point, or, upon receipt of a distress signal, forward it to the appropriate Rescue Coordination Center.

If a vessel were to become distressed and the Master deemed it necessary to alert ships in the area to the possibility of abandoning ship, the R/O would be responsible for generating alarm signals and broadcasting distress signals utilizing the vessel's radio and electronic systems.

Finally, in the event of an actual abandonment, the R/O was required to carry the vessel's lifeboat transceiver into the lifeboat and generate distress signals, which could alert nearby vessels.

R/O's duties In The Merchant Marine



After leaving the U.S. Coast Guard, Walter served a board a number of merchant ships. This is a picture of the SS Kaimoka *near Honolulu, Hawaii, and is typical of the type of ship that he operated from.*

Walter eventually left the Coast Guard and joined the Merchant Marine and served on a number of vessels. Walter's R/O duties during that time would include the following;

1. A check of the vessel's emergency radio equipment, i.e. the emergency transmitter and receiver, the automatic alarm receiver, the automatic alarm generator, the condition of the emergency wet and dry battery systems. The results of these inspections are recorded in the ship's radio log.

2. Intercept weather, hydrolant and navarea broadcasts and keep the bridge fully cognizant. Weather data was accumulated by the R/O and passed to the vessel's Master. This included weather facsimile charts and information received via Morse Code, radio-teletype and data circuits during regularly scheduled broadcast periods. Commercial coast station traffic lists were monitored on a daily basis for any messages intended for the vessel, obtaining any such messages and delivering to the addressee.

3. Handle outgoing and incoming official message traffic in as expeditious a manner as possible. Messages to be duplicated and delivered to the appropriate departments or personnel and a radio station file maintained of all incoming and outgoing message traffic.

4. Provide radio-telephone and radio-telegram commercial services for the vessel's crew members and other embarked personnel relative to personal matters.

5. Collect any monies owed for outgoing personal message traffic and prepare appropriate abstracts, forwarding them on a monthly basis to the vessel's radio accounting authority (AAIC).

6. Conduct regularly scheduled preventative maintenance service for the bridge electronic equipment, i.e. radars, GPS, satellite navigation receivers, Loran-C, VHF radio-telephones, collision avoidance computers, facsimile recorders and other electronic systems.

7. Perform corrective maintenance on the vessel's electronic systems on the navigation bridge and in the radio room as required. In addition, assist and advise the Engineering Officers on electronic systems located in the vessel's cargo control room and other spaces throughout the vessel.

8. Maintain corrections to the military publications and instructions that pertain to the vessel's military readiness requirements as directed by the Maritime Administration (MARAD).

9. Order, maintain and ensure that all required spare parts for the various electronic systems were onboard and properly stowed.

10. Ensure that the watch and station bill was properly posted; radio watches were properly maintained, emergency instructions were adequate and that all instructions were thoroughly understood.

11. Maintain a file of standing orders outlining functions and duties to ensure efficient communication operations.

12. Edit all out-bound messages with regard to proper formatting, brevity and ensure the message has been released for transmission by the Master.

13. Ensure a stock of all forms, i.e. message blanks for official and commercial message traffic, radio abstracts and account statements, printer ribbons, pens and pencils, and any other clerical items necessary to operate an efficient radio station.

The vessel is typically equipped with a complex arrangement of communication systems. In addition to the radio telephone/telegraph equipment, an Inmarsat satellite communication terminal is installed. With regard to radio channels and frequencies, the options are many and diversified.

The vessel's satellite communication terminal is used for telephone and telex activity. There are facilities to alert rescue agencies in the event of distress.

Recent changes in the SOLAS convention resulted in the discontinuance of the manual ship-to-ship distress and safety system; replacing it with the new Global Maritime Distress and Safety System (GMDSS). The new system was mandated to be fully implemented by 1999 and represents an automated ship-to-shore distress alerting system that relies on satellite and advanced terrestrial systems.

Making CW History

In the spring of 1993 Walter joined Global Wireless and first began his career with that company on the West Coast working at KPH. While working at his post on August 8, 1997, he heard a weak signal CW signal on 8 MHz.

The signal was a general call to all stations from the cargo vessel Oituz using call sign YQIE. The message was in part as follows:

The operation room of commerical radio station WCC in 1948. The station was located on the Atlantic coast and dates back to Marconi's first commercial station in the United States. This was CW radio operation at its zenith.

FROM MV OITUZ YQIE TO ALL SHIPS STOP PSN 1848N/09459W FROM VERA CRUZ TO FRONTERA REPORTED MAN OVERBOARD / COOK DESPINA GHEORGHE / MALE / ROMANIAN NATIONALITY STOP MASTER

While the ship was in Mexican waters, and outside of the jurisdiction of the U.S. Coast Guard, Walter was able to coordinate with Rescue Coordination Center in New Orleans to get a message to the Mexican Navy. During that time Walter remained in CW contact with the ship's Radio Office (R/O). Soon a message was sent out by the R/O on the Oituz. It said:

1850 UTC CREW MEMBER REPORTED MISSING WAS FOUND ALIVE BY MEXICAN NAVY STOP THANKS FOR YOU AND ALL ALERTED STATIONS

Because his actions assisted in saving a life at sea, Walter was awarded the Marconi Gold Medal of achievement by the Veteran Wireless Operators Association on May 21, 1999 (see http://www.vwoa.org/ for more information about that organization).

In recognition of his talent and hard work Walter was promoted and transferred to the Atlantic coast station WCC. This historic station was first used Marconi, then later by RCA.

Originally RCA used the station during the early 1920s for its point-to-point service to Europe. That operation was transferred to "Radio Central" on Long Island when that new station was built, WCC was used for communication with ships at sea only.

The site, located near Cape Cod, Massachusetts, was located near where Marconi's first radio station was built in 1901. Marconi constructed the site that was to be eventually owned by Global Wireless in 1914. It was chosen due to having ground that resisted erosion, which had caused problems with antenna collapses at the first site.

During World War I, the United States government, as a war measure, confiscated the site, and the assets were handed over to RCA. During the 1920s the site was dedicated to marine radio — as previously mentioned — and was significantly upgraded.

The first commercial vacuum tube transmitter in North American was installed at the site in 1921, allowing the site to communicate with ships as far away as the Indian Ocean.

The site was used as the primary means of communications during a number of historic events. It was used to keep in touch with Richard Byrd's first South Pole Expedition. It was used to communicate with the Graf Zeppelin and Charles Lindberg (though not on his historic Trans-Atlantic flight). It was the last station to communicate with the Hindenburg before its fiery crash. It was also used to keep in touch with Amelia Earhart before she disappeared in the Pacific.

Mindful of this history, Walter J. Kane III sat down in front of his key at WCC for the last time on July 12, 1999. Rory Davis at WNU, Paul Zell at KPH, and Tim Gorman at KFS joined him at their respective stations. The last official message was sent from Liberty Ship *SS Jeremiah O'Brien* at 2331 UTC and was received at Half Moon Bay, CA.

Once the message has been copied, each of the four stations sent out their last official CW message to the marine world. Walter was the first to send out the message at 2340 UTC on 4310.0 6376.0 12826.5 16972.0 17117.6 KHz. The text of what he sent was the following:

CQ DE WCC
IN 1901, CALLSIGN WCC WAS ASSIGNED TO THE SOUTH WELLFLEET
MASSACHUSETTS WIRELESS TELEGRAPH FACILITY OPERATED BY
GUGLIELMO MARCONI. MORSE CODE SIGNALS FROM WCC HAVE BEEN
HEARD AROUND THE WORLD EVER SINCE. TODAY WE RETIRE WCC FROM
WIRELESS TELEGRAPH OPERATIONS. WCC WILL CONTINUE TO SERVE THE
MARITIME COMMUNITY IN ASSOCIATION WITH THE GLOBAL RADIO NETWORK
OPERATED BY GLOBE WIRELESS.
AR DE WCC SK

The remaining stations each sent their own messages, with the order being WNU, KPH, and KFS. On or about 2359 UTS the final commercial code originating in North America was sent by KFS, being:
WHAT HATH GOD WROUGHT BT DE KFS SK

With that the CW era ended, and the real beginnings of 21st century commercial radio communications began in earnest.

Walter continues to contribute to Global Wireless in his capacity as vice president of sales, which he was appointed to in December of 2001, marking the 10th year of his employment with the company. I am sure that you will all agree after reading his story that he represents the finest qualities that make up a true Radioman.

Thank you Walter, and may you continue to contribute to the progress of the commercial radio industry for many more years to come, and I hope that your story may inspire a few more good men and women to take up the profession as well.

If you want to read more about Walter J. Kane III, please see his personal website at ttp://www.wjkane.com/.

Walter has done a lot more with his life than I have listed here, and I'm sure you will find his career and adventures to be worthwhile reading.

Reader's Letters

The mail is starting to pick up again now that we are starting to move into the warmer weather. Here are some of the many that I received recently.

Dear Joe,

Enjoyed your piece in *Pop'Comm* on Telefunken etc. I am interested in HF utility monitoring; mainly CW. Have downloaded a list of utilities in the past but unfortunately deleted that and have been unable to find it again. If you know the URL of such a list, I would appreciate the information. Am interested primarily in shore stations worldwide.

Sincerely,
Brooks Klostermyer,
KE4UMW
Asheboro, NC

Thanks, Brook for the comments about the history of radio monitoring column. As many of you may have noticed I'm also doing the "Computer Aided Monitoring" column (glutton for punishment that I am). I am going to be moving all the computer-related material over to that part of the magazine from here on in, unless there is something very specific to ute monitoring that needs to be addressed here.

And yes, there are many utilities that fit the description of what you are looking for and I will be looking at them in more detail in the months to come.

David Hopcroft, the former station manager of British coastal station GKZ has some news to report in relation to the kind offer that he made to send out historic QSLs commemorating the final days of that station.

Hi Joe,

I have already had one 'hit' from someone in Rochester, N.Y., but he couldn't find any log entries 1947–51! A bit before my time. I have checked on post costs for the QSL cards — it is £0.65 UK which is just about $1 U.S., so if anyone checks with you, you can give them my address and tell them to include a $1 bill!!

Regards,
David Hopcroft

And:.

Hi Joe,

Still only the one 'hit'. That was 29th January. My QSO in Texas had not received his mailed copy by then or by a week later. He was Robert S. Knox, from Rochester, N.Y. I didn't save at the time for some reason but will pass on any others if interesting. He had searched 3000 log entries 1947–51, but nothing found for GKZ. A bit before my time, but he had HF entries for Portishead and Dorchester, which in my time was a transmitter used by Portishead using GKA etc call signs, so that was news to me.

Will keep you advised.
David

However, I also received this note from one of our readers.

Joe, I can't believe Mr. Hopcroft wrote that GKZ was on western shore of jolly ole blighty. Surely that is a misprint. Last time I was in East Anglia, that area was on the east coast. I was stationed at RAF Bentwaters in the early '60s. That was

Woodbridge's sister base. Lived at Aldeburgh. A friend lived at Orford. Was surprised to read that the early radar antenna was at Orford. very interesting. That little, (and it is) criticism aside, I enjoyed the article very much.

Nolley Byrd,

Nolley, that's why I put the map in the article, just to make sure that everyone knew exactly where the station was located. Being in the writing game, I can tell you that as the fingers fly across the keyboard, they sometimes get their own ideas about where they are going to land.

Anyway, I know you were only saying what you were saying in jest, and I am glad that you (and many other readers) enjoyed reading about the station and its history.

Now, on to the logs!

Reader's Logs

Plenty of action on the airwaves this month from the look of the logs that I have received. Is there any area of the ute services that have been missed? I'd like to get more reader's feedback on this. I try to have as much diversity as possible in the logs, but if you feel there is something needed that is missing please write to me with your suggestions.

Note: All frequencies are in Kilohertz.

00000: STATION, Anytown, USA, summary of traffic heard in MODE at 0000 Z , personal comments here (JC)

198: DIW, Dixon NDB Dixon NC 0346 CW. (MADX)

216: CLB, Wilmington, NC 0350 CW. (MADX)

237: EZF, Shannon NDB Fredericksburg, VA 0357 CW. (MADX)

254: LLW, Woodville NDB Elizabeth City, NC 0408 CW 50 watts. (MADX)

255: EUD, York NDB York, PA 0416 CW 25 watts. (MADX)

259: BUH, UNID NDB 0422 CW (MADX)

516: YWA, Petawawa NDB Petawawa Canada 0314 CW. (MADX)

518: NMG, USCG COMSTA New Orleans 0303 NAVTEX [G] 1569km w/WX for Gulf of Mexico. Again at 0700. (MADX)

518: NMF, USCG COMSTA Boston 0447 NAVTEX [F] w/offshore WX. (MADX)

518: P, Netherlands Coast Guard Ijmuiden 0630 NAVTEX w/4 navigation warnings. At 0640, Q: Malin Head MSRC w/NAVTEX shipping forecast issued at 0550HRS. QRT at 0642. Copied using web-receiver in Sweden. (MADX)

1610: WQIG897, State of Maryland Travel Information Station. (MADX)

2187.5: GMDSS ALERT CHANNEL DSC//100/E/170 2353 All ships safety call by 00227530/Corsen. 2359 Safety/test call t/response from 002241024/Valencia by UK ship "Maersk Biscay/MWVQ6"/234428000. (DW)

2266.0: UNID CW Weak tfc in offline encrypt at 18wpm then went into fast opcaht. (DW)

2362.0: U2XC, UNID CW (F1A) Marker "U2XC" over approx 5 seconds in every 20. (DW)

2463.0: IDR, IN ROME RTTY//75/N/850 CARB "IGJ41 /IGJ42 /IGJ43 /IDR2 / IDR3 /IDR8". (DW)

2474.0: PBC32, DN GOEREE ISLAND RTTY//75/N/850 CARB. (DW)

2643.0: A9M, BAHRAIN RADIO CW Chan free marker "de A9M tlx." (DW)

2643.5: SPS, WITOWO RADIO CW Chan free marker "de SPS/tor k." (DW)

2789.0: FUE, FN BREST RTTY//75/N/850 Marker "FAAA de FUE testing ry's sg's figs kilo." (DW)

2795.0: ESA, TALLINN RADIO CW Chan free marker "de ESA." (DW)

2813.9: MTI, RN PLYMOUTH RTTY//75/R/200 CARB "02 02a MTI." (DW)

2816.5: UNID CW Tfc in offline encrypt in machine CW. Brief op sigs by hand. Wkng CH8N? (DW)

2829.5: SPB28, SZCZECIN RADIO CW Chan free marker "de SPB." (DW)

2845.0: PBB, DN DEN HELDER RTTY//75/N/850 CARB "02b 04a 06b 08y PBB." (DW)

3172.5: IMB, ROME MET RTTY//50/R/850 Met tfc. Offair btwn msgs. (DW)

3264.4: SAB, GW NODE GOETEBORG CW Chan free marker (Globe) "SAB" then wkng ship in Globedata. (DW)

3288.5: GAF? ?LOC ARQ/E//85.7/I/170 4RC. Betas. No tfc thru 0002. (DW)

3288.5: GAF?? LOC ARQ/E//85.7/I/170 4rc. On line encryption. (DW)

3330: CHU, Time Station Ottawa 0359 AM w/announcement in French and English. (MADX)

3381.0: A25, LATVIAN MIL ?LOC MIL.STD 188-141A ALE on USB. Sounding. Weak voice follows. 2019 clng LIELVA. 2303 clng PAMATS. (DW)

3390.0: MGJ, RN FASLANE RTTY//75/N/850 CARB "02 04 MGJ." (DW)

3401.7: RITA, LATVIAN RITA NET AX25//300/-/200 Packet bursts but most too weak to decode. RITA01 RITA94 DIGI3. (DW)

4181.5: TCIM: MV Konya 19.30 ARQ Tfc in Turkish, mentions Antwerp. (PT)

4220.3: GYU, RN GIBRALTAR VFT// 2 chan vft on USB. (DW)

4220.9: GYU, RN GIBRALTAR RTTY//75/R/200 Chan 1 on vft. CARB "06a 08a GYU." (DW)

4241.0: 4XZ IN HAIFA CW Marker "vvv de 4XZ ==". (DW)

4244.0: DAO KEIL MAIL CW Chan free marker (10 F1b bursts with two second burst spacing, then 3 qck bursts) cw ID "CQ de DAO" every three minutes. QSX 4166/4177kHz. (DW)

4244.0: DAO KIEL MAIL CW Chan free marker "CQ de DAO". (DW)

4259.0: SAB, GW NODE GOETEBORG CW Chan free marker ." Wkng ships in Globedata. (DW)

4259.0: XSG, SHANGHAI RADIO CW Marker "CQ de XSG pse up 197(?)". qrm4 fm SAB. (DW)

4262.0: LFI GW NODE ROGALAND CW Chan free marker (Globe) "LFI". Wkng ships in Globedata. (DW)

4268.0: VTG4, IN MUMBAI CW Tfc, weak, in offline encrypt (4 fig grps). (DW)

4273.0: SAA, KARLSKRONA RADIO CW Marker "CQ de SAA = QSX 4195 6292.5 =." (DW)

4280.0: PBC34, DN GOEREE ISLAND RTTY//75/N/850 CARB. Chan 04b active. (DW)

4283.0: XSV, TIANJIN RADIO CW Marker just audible enough to ID "QRZ ? de XSV up ..." (DW)

4292.0: IAR, ROME RADIO CW WX forecast for Med. [23wpm]. (DW)

4295.0: FUE, FN BREST RTTY//75/N/850 Marker "FAAA de FUE testing RYs SGs figs k." (DW)

4320.0: IAR, ROME RADIO CW Marker "vvv de IAR k 4 8 12 16 22 MHz = we lsn 22 and reply on 17206.1 kh." (DW)

4320.3: MGJ RN FASLANE VFT// 4 chan fleet bdcast vft on USB. (DW)

4322.1: MGJ, RN FASLANE RTTY//75/R/340 Chan 3 in vft. CARB. Chan 08p active. (DW)

4325.8: R, CISN USTINOV CW Single letter [R] hf beacon. (DW)

4490: AAT3BFMARS, U.S. Army MARS Station Delaware 0032 MIL-STD 188-141A/USB w/sounding call. (MADX)

4500: AFF2WV, U.S. Air Force MARS West Virginia 0123 USB w/US Air Force MARS late stations net call. AFA2WT, AFA2ER: Tampa FL, and AFA2TB: Winchester TN active on freq. (MADX)

4500: AFA2TB, U.S. Air Force MARS Winchester TN 0124 USB wkg AFF2WV w/late net check in. (MADX)

4500: AFA2ER, U.S. Air Force MARS Tampa, FL 0123 USB wkg AFF2WV w/late net check in. (MADX)

4525.0: 5ST: ASECNA Antan 1750 RTTY 100/400 WX codes. (RH2)

4560: E10, MOSSAD Numbers Station 0236 AM YL/EE/5LGs already in progress. (MADX)

4625: S28, The Buzzer 0246 USB. (MADX)

4739: Trident 44 (P-3C,VP-26 "TRIDENTS", NAS BRUNSWICK): 0404 USB w/Golden Hawk (TSCC, NAS Brunswick) w/Spare Group report. (RP)

4739: Mink Control (US accent): 0117 USB w/Swordfish 23 (probable P-3C, foreign accent) and Eagle 22 (probable P-3C US accent). (RP)

5104: UNID, U.S. fishing vessels 0604 USB w/discussion of squid catches. (MADX)

5106.7: EGYPTIAN EMB ?LOC SITOR/A// 100/E/170 Too weak to decode. (DW)
5135: Atencion 5-F station at 0100. (RB)
5275: O/M (FF): 1232 USB w/O/M (FF) in non-official conversation. FF is Canadian accent. (RP)
5401.6: AE1USA: Edingen, Germany 20.40 Pactor MARSGRAMS to AE1GLR, location unknown. (PT)
5450: MVU, RAF VOLMET 0610 USB w/aviation WX. (MADX)
5505: EIP, Shannon VOLMET 0613 USB w/aviation WX. (MADX)
5547.0: 007 ARINC SHANNON HFDL// on USB. Squitters. (DW)
5699: Winnepeg Military: 2348 USB w/Gonzo 35 & 37 (CC-142s) in radio checks. (RP)
5708: 160021, USAF C-5B #86-0021 0445 MIL-STD 188-141A/USB clg OFF: Offutt AFB. (MADX)
5708: REACH 6021 0437 USB wkg CROUGHTON w/pp to UNID Ops (poss Rota Ops). (MADX)
6145.0: UNID: "Free Zimbabwe R" 1615 AM New London based pirate broadcasting to S Africa! (RH2)
6255: Cuban type atencion # station in progress at 0415. I have heard really bad audio before on some of these, but this was the worst I've ever heard. Numbers almost unintelligible,loud hum over carrier, and no LSB present with carrier. (Rick Barton).
6270: E10, Mossad Numbers Station 0508 AM YL/EE w/5LGs already in progress. (MADX)
6318.5: JWL, UNID 0915 MIL-STD 188-141A/USB w/sounding call. Also at 1315, 1715, and 2115. (MADX)
6318.5: STK, UNID 0903 MIL-STD 188-141A/USB w/sounding call. Also at 1303, 1703, and 2103. (MADX)
6318.5: JWL, UNID 0515 MIL-STD 188-141A/USB w/sounding call. (MADX)
6323.5: NMC, USCG CAMSPAC Point Reyes 0538 CW w/call and free idle. (MADX)
6324: VCT, Globe Wireless Tors Cove 0538 CW w/call and free idle. (MADX)
6389.0: ZSC, GW NODE CAPETOWN CW chan free marker (Globe) "ZSC". Wkng ship in Globedata. (DW)
6380.0: 4XZ IN HAIFA CW Tfc in offline encrypt. (DW)
6389.0: AQP4, PB KARACHI CW Marker "vvv de AQP2/4" then into tfc with 5 fig grps. Barely readable. (DW)
6390.0: CTP, PN LISBON RTTY//75/N/850 Marker "naws de CTP QSX 04 06 08 12 Mhz AR". (DW)
6399.0: RETM, SPANISH NAVY ?LOC RTTY//100/N/850 WX and nav wngs from ALMED. (DW)
6399.9: UON, BAKU RADIO CW Wkng ships/tfc. (DW)
6401.0: HAMBURG MET RTTY//50/N/450 Spurious emission. Marker "CQ de DDK2 DDH7 DDK9 frequencies 4583 kHz 7646 kHz 10100.8 kHz ry's." (DW)
6532.0: 007, ARINC SHANNON HFDL// on USB. Squitters. 2049 uplink to Air ID145 D-ALCN. 2050 uplink to ICAO 17070150 cfm logon as Air ID146. 2053 uplink to Air ID 145/D-ALCN. (DW)
6721: 'Reach 8401' in USB at 0225 w/ phone patch to Hilda Meteo for WX for Andrews. (TS)
6771.7: MFA CAIRO SITOR/A//100/E/170 Selcals TVXK. Swtchs to fec, indicating 5015 = QSX 5105+1.7kHz (5106.7 kHz). Returns ARQ, makes contact but no tfc. (DW)
6834.0: UNID CW "OU6K 557 52 15 021 5 557 = 562 = PRUFA UOYQA" etc. (DW)
6834.0: GYA, RN NORTHWOOD FAX//120/576/N/800 MSLP analysis for 1200 for Mid East further charts same area but becoming fuzzy disappearing into noise by 1930. (DW)
6834.0: GYA, RN NORTHWOOD FAX// 120/576/N/800 Mid East charts (starting 0605?) beginning to appear out of noise. Offair 0730z. (DW)
6846.5: MKD: Akrotiri, Cyprus 21.44 Piccolo 6 Op chat to unknown station .(PT)
6866: Cuban M8 CW cut # stn w/ 5F msg at 1416. (TS)
7585.7: RFVITT: Mayotte 22.00 ARQ-E3 192/400 Only part of message caught - 5-lg tfc to un-id. No cct ID seen. (PT)
7635.7: UNID: Loc unknown 19.40 ITA2 50/200-475 Sending 5-ng very slowly, as if each digit is being typed in by hand. Idles on mark all night with only a little op chat which I can't decode. Starts off with 200 Hz shift but changes to 475 Hz. (PT)
7657: 13C wking 'Panther' in USB at 0812 passing posn rpt. Foxtrot channel. (TS)
7900: UNID, prob Colombian Navy 0136 CLOVER2000 wkg UNID. (MADX)
8010: GAL, Romanian MOI Galati 0736 MIL-STD 188-141A/USB clg SAL:Romanian MOI Slatina. (MADX)
8010: Cuban YL/SS V2 stn w/ 5F msg. (TS)
8040: GYA, Northwood 0456 FAX 120/576 w/500mb height chart already in progress. (MADX)
8048.5: C05, USNG Bio Team 0229 MIL-STD 188-141A/USB clg B07: USNG Bio team. Again at 0231z. (MADX)
8165: NOMADE, R&S Station 0036 MIL-STD 188-141A/USB clg NOMADE1: R&S Station. (MADX)
8191.7: 9MR: Malay Navrad 1654 rtty 50/850 5LG (to SRI Sabah?) (RH2)
8295.5: STK, UNID 2103 MIL-STD 188-141A/USB w/sounding call. (MADX)
8295.5: JWL, UNID 2115 MIL-STD 188-141A/USB w/sounding call. (MADX)
8295.5: JWL, UNID 1322 MIL-STD 188-141A/USB clg GRH: UNID. (MADX)
8295.5: JWL, UNID 1305 MIL-STD 188-141A/USB clg STK: UNID. (MADX)
8295.5: RLW, UNID 0129 MIL-STD 188-141A/USB clg JWL: UNID. Again at 1329. (MADX)
8298.0: VTP13/14 IN Vishakpatnam 1612 rtty 50/850 RY/ID + callsigns (RH2)
8303: LOR, Argentine Navy Puerto Belgrano 0051 BAUDOT 75/170 w/SS tfc. (MADX)
8335.5: DHJ-59 (German Navy Wilhelmshaven): 2218 USB w/UNIDentified German Navy vessel in voice (EE) & RTTY traffic. (RP)
8335.5: DHJ-59: 0012 USB w/DRES (FGS WEIDEN MINE HUNTER M-1060) in voice (EE) & RTTY traffic. (RP)
8387.5: UBUS SRTM Irkutsk 1213 ARQ clg Vladivostok w/KYPS selcal, 55329 UBUS STRM Irkutsk, no tfc (ML)
8387.5: UDDD SMB Spravedlivyi 1240 ARQ tfc to Vladivostok (ML)
8387.5: UFSN PB Sibirtsevo 1059 ARQ tfc to Vladivostok (ML)
8387.5: XUFV3 M/V Pasifik Wind 1159 ARQ wkg Vladivostok w/KYPS selcal, XUFV3 id & part msg. (ML)
8401.0: No-Call: Oil Rig PROMETEU, Bulgarian waters 19.17 ARQ Petromar jack-up drilling rig PROMETEU with tfc in Romanian to BAZA PETROMAR / PETRO-CONST. Lots of other tfc during the evening. (PT)
8402.5: UAUK: MV Nivenskoe 16.11 ITA2 50/170 Calling UIW with RY's. (PT)
8430: TAH, Istanbul Radio 0800 SITOR-B 100/170 w/WX in English. (MADX)
8431.5: UAT, Moscow Radio 0754 CW w/call and ARQ free idle. At 0800 w/tfc list in SITOR-B 100/170. (MADX)
8435.5: OST, Oostende Radio 0851 CW w/call and ARQ free idle. (MADX)
8028.0: V5G, MFA BUCHAREST FEC/ ROU//164.6/R/400 Bit inv mask = 24. Diplo bdcst, online encrypted. (DW)
8444.1: MURMANSK MET FAX//120/576 /R/800 (lsb of 8446). Sfc press/wind (prog?). rpm >120 causing skew. (DW)
8444.1: MURMANSK MET FAX//120/576/ R/800 (lsb of 8446). Sfc pres/wind chart? (DW)
8453: FUG, French Navy La Regine 0848 BAUDOT 150/810 w/test tape. (MADX)
8478.5: FUF, French Navy Martinique 0839 BAUDOT 75/840 w/call tape. (MADX)
8500.0: VTH1/5/7 IN Mumbai 1609 rtty 50/850 RY/ID + callsigns. (RH2)
8503.9: NMG, USCG COMSTA New Orleans 0829 FAX 120/576 w/request for comments/schedule chart. QRT at 0834. (MADX)
8557: SPB, Szczecin Radio 0824 SITOR-B 100/170 w/nx in Polish. (MADX)
8590: XVS Ho Chi Minh rdo 1148 CW WX EE. (ML)
8604.0: ZSD: SAN Durban 0951 MFSK 54.5 Unable decode //12947.5 khz. (RH2)
8678: XVS Ho Chi Minh rdo 1218 CW NAV wng EE. (ML)
8694.0: XSZ, DALIAN RADIO CW Wkng ship (in Chinese) then reverts to marker "CQ de XSZ qru? QSX 8 and 12 MHz k." (DW)
8728: 3AC, Monaco Radio 0715 USB w/MIB. /8806/. (MADX)
8834.0: 008, ARINC JOHANNESBURG HFDL// on USB. Squitters. (DW)
8971: QUARTET711, P-3C VP-45 NAS Jacksonville 0029 USB clg FIDDLE: TSC Jax. (MADX)

8971: Wafer 26 (P-3C, VP-92, NAS Brunswick): 2034 USB calling Golden Hawk (TSCC, NAS Brunswick) in clear and ANDVT traffic. (RP)
8974: Air Force Sydney: 1222 USB w/unheard aircraft w/WX for undisclosed location. (RP)
8977.0: 003, ARINC REYKJAVIK HFDL// on USB. Squitters (DW)
8983: CG 2135 (HU-25C+, CGAS Miami): 0402 USB w/CG 1706 (HC130H7, CGAS Clearwater) and Camslant Chesapeake in radio checks. CG 1706 enroute to Grand Cayman Island. (RP)
8992: HALIFAX, Canadian Coast Guard Halifax 1740 USB wkg RESCUE 328: CANFORCE CC-130 (413 Trnsprt and Rescue Sqd. Greenwood)with pp to Coast Guard Operations. At 1748, RESCUE 317: UNID CANFORCE aircraft w/pp to RCC. (MADX)
9025: 79, UNID ALE stn wking IMPALA at 0100. (TS)
9025: ORYX, UNID ALE stn wking CIERVO UIE at 1252, at 1257 wking GACELA. (TS)
9031: Architect (RAF Flight Watch Center): 1132 USB w/RAF airfield color states then wind speed & direction and color states for various European airfields. (RP)
9122.5: CGQHF1, UNID USACE 1505 MILSTD 188-141A/USB clg SAMHF1: USACE Mobile. Again at 1509. (MADX)
9202: E10, MOSSAD Numbers Station 0219 AM YL/EE/5LGs already in progress. "End of transmission" at 0220. (MADX)
9251: "Lincolnshire Poacher" E3 YL/EE numbers stn w/ 62926 callup & 5F msg at 2203. (TS)
9996: RWM, Moscow, Russia w/ time pips in CW at 0617. (TS)
10046: 4XZ, Haifa Naval, Israel, in CW at 2206 w/ 5L msg. (TS)
10151.5: D02, UNID US military stn in ALE at 2255 wking D01. Came up in USB for radio check. Other ALE stns noted on this freq at various times are OPS, A12, B04, B05, B07, B12, CDR, C03, C05, C06, C07, & TRAPPER. (TS)
10280.5: MKD: Akrotiri, Cyprus 19.25 Piccolo 6 Op chat to GEP, location unknown. (PT)
10608: ESPADA, UNID Colombian Navy 0058 MIL-STD 188-141A/USB clg RADGENA: UNID Colombian Navy. (MADX)
10850.5: UNID PICC// 10850.510. On standby thru 2258. (DW)
10865.0: BXT78, CHINESE DIPLO MIL.STD 188-110A on USB. 300bps/lng intv. "vvv de BXT78 hr znn ry's" and online encrypt. Interleaved with RT coordination in Chinese. Switches to 1200bps/lng intv. Tfc in offline encrypt (5 ltr also 5 fig grps). (DW)
10865.0: YT362A, CHINESE DIPLO MIL.STD 188-141A on USB. Clng ZT201A who responds (DW)
10865.0: BDA21, CHINESE DIPLO MIL.STD 188-110A on USB. 1200bps/lng intlv "vvv de BDA21 hr msg ry's" then online encrypt. (DW)
10995.0: TNS, ALGERIAN EMB TUNIS MIL.STD 188-141A ALE on USB. Clng MAE/Algiers. (DW)
11018: SANTANA, Counter-narcotics unit Santana Colombia 1214 MIL-STD 188-141A/USB clg TRESESQINT: Counter-narcotics unit Tres Equinas Radar Station Colombia. (MADX)
11018: TRESESQINT, Counter-narcotics unit Tres Equinas Radar Station Colombia 1222 MIL-STD 188-141A/USB clg FLORENCIA: Counter- narcotics unit Forencia Colombia. (MADX)
11039.0: DDH9: Hamburg Meteo 1815 rtty 50/400 RY/64/ID//147.38 & 144. (RH2)
11079.7: UNID: SANA Damascus 1623 rtty 50/850 Nx\AA. (RH2)
11175: LL48, P-3C VP-30 0041 USB wkg LAJES w/pp to FIDDLE WO: TSC NAS Jax. LL48 req RTB. (MADX)
11181: Diego Garcia: 2150 USB w/Reach 7F4 in pp to Matador CP & Metro. ALE also noted on this freq. (RP)
11181: Diego Garcia: 2207 USB w/Reach 097Y (not heard) in pp w/Hilda Metro w/WX for two undisclosed destinations. (RP)
11226: Diego Garcia: 2343 USB w/Reach 50267 (not heard) in pp to Hilda West. (RP)
11230: O/M (Arabic): 2132 USB w/O/M (Arabic). (RP)
11232: UNID, 0010 SYSTEME3000 8-tone MFSK. (MADX)
11232: MAGIC77, NATO E-3 AWACS 0154 USB wkg TRENTON MILITARY w/pp to NATO OPS concerning request to leave orbit and ETA of relief aircraft. QSX to 9007 at 0157, to 13257 at 0200, back to 9007 at 0204. (MADX)
11232: CANFORCE 2602, 1932 USB wkg TRENTON MILITARY w/tfc and sc chk. Aircraft departure msg. Selcal: FM-EH. (MADX)
11232: CANFORCE 4207, CC-130 (429 Transport Squadron Trenton) 1928 USB wkg TRENTON MILITARY w/pp to 429 Operations and sc chk: GH-AJ. (MADX)
11232: Canforce 2599: 2031 USB w/Trenton Military In pp w/Wing Ops for arrival at Greenwood CFB. (RP)
11300: 0142, 0110 USB wkg DAKAR ARTCC. (MADX)
11300: MADAGASCAR 56, 0110 USB wkg TRIPOLI ARTCC. (MADX)
11309: 'New York' ATC in USB at 2306 wking Carribean 2001 for posn rpt.(TS)
11311: O/M (JJ): 2149 USB w/O/M (JJ). (RP)
11342: San Francisco (ARINC): 0106 USB w/flight 932 in pp w/medical personnel regarding on board medical problems w/passenger. (RP)
11377: O/M (African language): 2305 USB w/O/M (African language). Some French was interspersed with the African language. (RP)
11396: Brisbane (MWARA SEA-3): 1116 USB w/Conex 117 (sounds like) w/ATC route changes and selcal check. (RP)
11418.3: FJY5: DTRE Crozet I 0820 ARQ-E3 200/400 Betas (RH2)
11420: O/M (IT): 2211 USB w/O/M (IT). (RP)
11429: TAC, Chilean Navy 0235 MIL-STD 188-141A/LSB clg FLC: Chilean Navy w/repeated calls. At 0236 TAC wkg ASI: Chilean Navy w/"CMD DBM" msgs back and forth. Heavy QRM from nearby MIL-STD 188-110A. (MADX)
11480: O/M (IT): 0108 LSB w/O/M (IT). (RP)
11483.0: RFGW, MFA PARIS STANA G4285// on USB, 1200bps/lng intv. Clng F9S/Prague then L9C/Buenos Aires "qap la 411 aug de trois a toi", uses cct [BNS]. 1431 with "sri l em est tombe em panne". qso with F9S, FF on cct [PGE]/Prague (DW)
11566: Cuban type 5-F# sta in progress at 0425. (RB)
12216.0: UNID ITALIAN? MIL.STD 188-110A on USB. 1200bps/shrt intrlv. On line encryption. In short bursts. Voice coordination s/off with "ciao ciao." (DW)
12217.0: MFA ROME ARQ/RS//240/E/- on USB. 8 bit mode. Tfc to Tirana in offline encrypt (2x30 ltr grps per line). (DW)
12219.7: No-Call: Cairo, Egypt 15.15 ARQ MFA calling XBVY selcal, London embassy. (PT)
12479.0: FRVR: Unid French vessel 19.46 ARQ Monthly test message to owners. (PT)
12489: UBRG TH Kapitan Degtyar 1002 ARQ svc msg to Vladivostok, UBRG log on (ML)
12489: UGDW TH Magadan 0846 ARQ w/KYXM selcal, 54038 UGDW log on & svc msg to Vladivostok. (ML)
12489: XUMM9 M/V Goldobin 1217 ARQ svc msg to Vladivostok. (ML)
12490: YDXR M/V P.3006 1022 ARQ w/selcal QQVP -> 2205 & msg for PERTAMINASHIP Jakarta (ML)
12491: UDQU TH Platon Ojunskij 1020 ARQ tfc to Kholmsk (ML)
12601.0: ZSC: Capetown R 0945 FEC High Seas WX. (RH2)
12622.5: XSQ: Guangzhou, China 15.21 ARQ End of tfc list (PT)
12625.5: UCE: Arkangelsk, Russia 14.16 ARQ Message in EE from "PURCH. DEPT. — NSC ARKANGELSK" to vessel UCOL, MV Ekaterina Belashova . (PT)
12669.0: LOR: AN Puerto Belgrano 2005 rtty 75/170 ID + 5LG. (RH2)
12709: A9M, Bahrain Radio 0438 CW w/CQ channel mkr. (MADX)
12745.5: JJC: Tokyo R 1525 fax 60/576 JJ Nx\paper. (RH2)
12801: TAH, Istanbul Radio 0120 CW w/call tape. (MADX)
13202: O/M (Vietnamese): 1121 USB w/O/M (Vietnamese). (RP)
13242: 53888DAT, 0054 USB wkg ADNSIL: Rockwell Collins GATM element (MADX)
13282: Sydney: 1126 USB w/automated voice volmet. (RP)
13306: Brisbane (MWARA AFI-5/INO-1): 1156 USB w/flight 542 (identifier missed) in ATC route change. (RP)
13312: O/M (EE): 2220 USB w/UNIDentified aircraft (callsign missed) in radio & selcal check. (RP)

13330: Houston Radio: 1337 USB w/Falcon 88AD in unsuccessful selcal check (DQ-GL). (RP)
13444.2: RFQP: Djibouti 19.35 ARQ-E3 100/400 CdeV to self on DJI cct to Reunion. (PT)
13513.0: Unid: British Mil. 11.46 Piccolo Idles until 12.00 and shuts down. (PT)
13550.5: ZKLF, AUCKLAND MET FAX// 120/576/N/800 Sfc analysis; fuzzy. (DW)
13750: "New Star" YL/CC V13 numbers stn in AM at 1333 w/ Chinese music callup & 4F msg. (TS)
13846.7: RFVI: Reunion 16.24 ARQ-E3 100/400 CdeV to self on RUN cct to Djibouti. Also 5-lg tfc from RFFMSYR to RFVIFLR, FS Floreal. (PT)
13927: AFA1YV (MARS station): 2134 USB w/Reach 083Y in personal pp. (RP)
13946.5: UNID: Tunis Diplo 1705 FEC 4-5LG to 010, 011, 012. (RH2)
13951.0: HBD74: Kinshasa, Congo 16.20 ARQ Swiss embassy signing off. (PT)
13976.5: UNID: Tunis Diplo 1530 fec 5LG after "Etoile 29344". (RH2)
14367.2: BAF8: Beijing Meteo 0645 fax 120/576 Clear WX chart. (RH2)
14373.0: UNID: SS West African Net 1740 G-Tor 200/200 Tfc/SS Normally Tx in Pactor! (RH2)
14525.7: vwpk: M/S Merew 1520 ARQ Msg/EE - Indoships Freq! (RH2)
14550.0: O2, ALGERIAN MOI? MIL.STD 188-141A ALE on USB. Clng I5, agn 0836z. 0822z clng D2. (DW)
14550.0: I5, ALGERIAN MOI? MIL.STD 188-141A ALE on USB. Clng O1. Extremely long call burst. (DW)
14550.0: Y4, ALGERIAN MOI? MIL.STD 188-141A ALE on USB. Clng O1. (DW)
14550.0: X5, ALGERIAN MOI?MIL.STD 188-141A ALE on USB. Clng O2. (DW)
14602.0: MKD: Akrotiri, Cyprus 19.12 Piccolo 6 Op chat to unknown station (PT)19910.5: MKD: Akrotiri, Cyprus 10.00 Piccolo 6 Lots of op chat to GEP65, location un-id. (PT)
14636.8: RFLI, FF FT DE FRANCE ARQ/ E3//192/E/400 8rc. Betas. Tfc in FF, cct [IRT] until signal jammed with wideband rasping signal. (DW)
14669.0: RFFXL: Naqoura, Lebanon 15.53 ARQ-E 184.6/400 5-lg tfc to RFFXOC etc on XZL cct to Paris. Paired with XXL cct on 14964 kHz. (PT)
14680.0: CENTR1, MFA BUCHAREST MIL.STD 144-110A s/tone on USB. Tfc in online encrypt each burst starting "xxxxp." 1456 clng PZX. (DW)
14690.0: FAPSI ?LOC RTTY//75/R/500 Tfc in offline encrypt. 1557 second msg starting 11177 00018 27436 31105 01449 etc. (DW)
14801.7: RFVI: Le Port, Reunion 15.55 ARQ-E3 100/400 Cdev to self on VII cct to Noumea. (PT)
14817.5: UNID: FAPSI 1753 Crowd36 40bd. (RH2)
14824.7: RFVITT: Mayotte 16.50 ARQ-E3 192/400 DETMAR MAYOTTE with tfc in FF to RFVIC - BATENAV PORT DES GALETS. Very poor rx and cct ID not seen. (PT)
14867.0: EGYPTIAN DIPLO SITOR/A// 100/E/170 Sign off opchat in AA(ATU80). (DW)
14867.7: UNID: MFA Cairo 1620 ARQ Msg\AA — v strong Tx so probably to ALL STATIONS! (RH2)
14964.0: RFGW: Paris, France 14.57 ARQ-E 184.6/400 5-lg tfc to RFFXL, Naqoura, on XXL cct. Paired with XZL cct on 14669 kHz. (PT)
15016: Quick Lime: 2205 USB w/41-character EAM. (RP)
15025: Smasher (USOUTHAF Flight Monitoring Facility, NAS Key West) 1605 USB w/Islander (UNIDentfied) advising him that they do not have any contact w/Reach 6196. Islander calls Reach 6196 several times w/no response. (RP)
15034: 'Trenton Military,' CANFORCE stn w/ WX in USB at 2033. (TS)
15615.0: AXI25: Darwin Meteo 1500 Fax 120/576 Poor chart! (RH2)
15682.0: UNID: MFA Warsaw 1543 Pol-ARQ 100/240 Nx\Pol. (RH2)
15682.0: SNN299, MFA WARSAW CW(F1A) Periodic marker "vvv de SNN299 pse ga". (DW)
15920.0: CFH, CF HALIFAX RTTY//75/ N/850 Marker "naws de CFH zkr f1 3394 4158 6254 8309 12371 16555 ar" - no ships wkd thru 1555. (DW)
15961.0: RFLI, FF FT DE FRANCE ARQ/ E3//192/E/400 8rc. Betas. (DW)
16000: VNG, Llandilo, NSW Australia, in USB w/ time signals at 2114. (TS)
16077.7: RFFTB: Paris, France 15.15 ARQ-E3 192/400 AIR DIPERMILBRF PARIS with tfc in FF to RFTJD, Libreville on IAH cct. (PT)
16087.7: RFVI: Reunion 16.09 ARQ-E3 100/400 CdeV to self on REI cct to Paris. Returned over IRE cct at 16.19 on 18380.2. (PT)
16091.7: No-Call: Cairo, Egypt 15.55 ARQ MFA with 5-lg tfc from KHARGIA CAIRO to BOUSTEN WASHINGTON. (PT)
16118.9: HBD20: Bern, Switzerland 13.00 ARQ MFA with large amount of 5-lg tfc to Sofia embassy. (PT)
16135.0: KVM70: Honolulu eteo 0651 fax 120/576 Satpix. (RH2)
16141.7: UNID: MFA Cairo 1526 ARQ Selcall kkvu (Accra). (RH2)
16141.7: kwfk: Egy Emb. Accra 1647 ARQ Msg\AA to Cairo. (RH2)
16193.2: RFQP: FF Jibouti 1510 ARQ-M2 200/400 Betas. (RH2)
16232.0: wjykdk: Egy Emb Kampala 1412 ARQ 5LG to Cairo. (RH2)
16232.0: UNID: U.S. Intel Europe? 1450 Mode? 108.6/140 Logged before & ID by Leif Dehio (I think?). (RH2)
16260.0: P6Z: MFA Paris 1525 fec 192/400 Clg H6L (Algiers). (RH2)
16261.7: RFTJD: Libreville, Gabon 16.45 ARQ-E3 192/400 5-lg tfc to RFFICS, Paris, using cct ID XXX. I think this is actually cct HAI, paired with 16077.7 kHz, and he has forgotten to set up the cct ID. (PT)
16276.0: UNID: UNID Personal Msg 1600 ARQ Msg possibly in Malay dotted w EE - "so long Edward - basta mag send kalang NG DSC," "Sir, Goodnight nalang at tatawag nalang aka sa dsc at kay third bye Sir" Clues AnyWun? (RH2)
16276.6: No-Call: Harare, Zimbabwe 16.16 ARQ Egyptian Embassy (R—FKFS) with tfc in AA to Cairo. (PT)
16302.0: DFZG: Belgrade R 0703 rtty 75/400 RY/ID then crypto. (RH2)
16340: UNID, Algerian MFA 1000 8-tone MFSK in calling mode. (MADX)
16412.7: UNID: BIAC Kinshasa 0750 Pactor 200/200 Banking Tfc/FF to Lubumbashi. (RH2)
16534: Two OM's talking, heavily accented EE. Maritime simplex channel.. (TS)
16550.7: UNID: RN/NATO? 1628 rtty 75/820 RY's + vmgtcnj sig then crypto (RH2)
16606.0: UNID: UK MilCyprus 1543 MFSK 195.3/300 Crypto. (RH2)
16713: UIBQ TH POLLUKS (sic) 2319 ARQ w/KYXM selcal, UIBQ log on & svc msgs to Vladivostok (ML)
16806.5: NMC, USCG CAMSPAC Point Reyes 1800 SITOR-B 100/170 w/WX broadcast. (MADX)
16914.5: FUX: FN Le Port 1220 rtty 75/850 Interrupted bursts - sounds ill! (RH2)
16985.7: CTP: NATO Lisbon 1657 rtty 75/850 NAWS de CTP etc. (RH2)

16979.9: PWZ33, BN RIO DE JANEIRO FAX//120/576/N/800 Sfc pressure analysis. (DW)
17146.5: CBV, VALPARAISO PLAYA ANCHA FAX//120/576/N/800 Grainy swell and ice edge chart. 1935 sat pix. 2230 unscheduled(?) 1800z sfc anal. 2310–30 — three restarts for 12hr sfc prg chart. 2355 sat pix. (DW)
17215.7: LOR/PNR: AN Puerto Belgrano 1616 rtty 75/170 Radiovisos then 5LG. (RH2)
17215.7: LOR: AN Puerto Belgrano 1205 rtty 75/170 "Fm CEBA to AVSC" WX & Map References (RH2)
17215.8: LOR: AN Puerto Belgrano 1205 rtty 75/220 Grid references & WX. (RH2)
17362: WLO in USB at 2208 w/ automated voice w/ WX. (TS)
17437.0: UNID: Italian Diplo 1558 Rs-ARQ 228/170 Tx off as I tuned in! Curses! This freq not used for a long time! (RH2)
17441.5: 5YE: Nairobi Meteo 1640 rtty 100/850 WX Codes. (RH2)
17460.0: UNID: CIS Navy 1753 36-50 50/240 This freq been used for a very long time! (RH2)
17460.0: UNID: CIS Navy 1750 36-50 50/240. (RH2)
17460.0: UNID: CIS Navy 1455 36-50 50/240. (RH2)
17460.0: UNID: Russian Navy 1654 36-50 50/240. (RH2)
17462.7: UNID: FAPSI 1555 Crowd36 40. (RH2)
17916: Stockholm Radio: 1456 USB w/Reach 11 w/departure message. Enroute to Bahrain International. (RP)
17937: Lima Flight Support: 1938 USB w/AA 190 w/position report. (RP)
18028.3: DOR: Sofia, Bulgaria??? 14.30 ITA2 75/470 Calling COD (Beirut emb??) with RY's. (PT)
18042.7: RFTJ: Dakar, Senegal 15.54 ARQ-E3 192/400 CdeV to self being relayed on JDJ, Libreville - Dakar, cct. (PT)
18042.7: RFTJD, FF LIBREVILLE ARQ/E3//192/E/400 8rc. Betas. 1421 cct [JDJ] Cde de v RFTJ de RFTJ. (DW)
18183.4: 7RQ20: Algiers, Algeria 14.26 Coquelet 8 MFA with tfc in FF to AMBALG A NIAMEY. (PT)
18183.4: 7RQ20: MAE Algiers 1430 Coq8 26.67 Msg\FF to Air Algerie, Cairo, cc Kampala, Harare & Dar-es-Salaam. (RH2)
18183.4: 7RQ20: Algerdep7:800(MAE) 0930 Coq8 26.67 Msg\FF to Ambalg Kampala. (RH2)
18183.4: 7RQ20: MAE Algiers 1634 Coq8 26.67 5LG to Ambalg Bamako. (RH2)
18183.4: 7RQ20: MAE Algiers 1604 Coq8 26.67 Msg\FF to Ambalg Niamey. (RH2)
18183.4: UNID: Ambalg Maputo 1514 Coq8 26.67 Long report on SADC Meeting in Blantyre. Malawi. (RH2)
18183.4: UNID: Ambalg Yaounde 1540 Coq8 26.67 Msg\FF to "Ambalg a Pas" info MAE. (RH2)
18183.4: ALGERIAN EMB OUAGADOUGOU COQ/8// Tfc in FF. (DW)
18183.4: MFA ALGIERS COQ/8//26.7/I/- Tfc in FF. Relay to Harare? (DW)
18211.5: KHF: Guam 12.30 ARQ/CW Marker with CW-id, very faint. (PT)
18220.0: JMH5: Tokyo Meteo 0656 FAX 120/576 Nice chart! (RH2)
18238.0: ZSJ, SAN CAPETOWN FAX//120/576/N/800 Sfc analysis. (DW)
18258.6: UNID: Swiss Diplo 1624 ARQ 5LG - HBD32/Brasilia logged here previously. (RH2)
18261.0: GYA, RN NORTHWOOD FAX//120/576/N/800 Schedule; in skip, distorted. 1506 sfc analysis, fuzzy. (DW)
18269.0: HBD88: Swiss Emb Tripoli 1515 ARQ "No Messages" & ID sign-off. (RH2)
18276.7: rfkfs: Egy Emb Harare 1605 ARQ 5LG to Cairo(kdkrfr) — tks for tip PT! (RH2)
18276.7: RFTJ: FN Dakar 0846 ARQ-E3 192/400 CdeV on LIJ cid followed at 0848 by RFLI CdeV on same cid. (RH2)
18334.7: UNID: MFA Cairo 1545 ARQ Several Msgs\AA to unk (Bamako?) (RH2)
18334.7: UNID: Foreign Islamabad 1446 Twinplex 100/170 Selcal EAVX (Niamey). (RH2)
18380.2: RFFAAC: Paris, France 15.24 ARQ-E3 100/400 Tfc in FF to RFVITW - GROUPGEND ST DENIS REUNION, plus lots of other tfc, on IRE cct. Paired with REI cct on 16087.7. (PT)
18400.4: HGX55, HUNGARIAN EMB ALGIERS ARTRAC//125/N/170 Tfc in Hungarian. IDs "HGX21 de HGX55." (DW)
18415: 8BY, French Intelligence, in CW at 1356 rpting VVV 8BY and 3F numbers. (TS)
18513.9: OZU25, MFA COPENHAGEN TWINPLEX//100/-/- -400/-200/200/400. F7b-1. Selcals TPRP/UNID but no qso. 1213 Selcals TPIP/UNID, hdr corrupt then tfc in offline encrypt. Further selcals TPEK/TPEM/TPOK and brief opchat in Danish. (DW)
18553.7: RFTJ: Dakar, Senegal 19.04 ARQ-E3 192/400 CdeV to self plus 5-lg tfc from RFFKAGL (prob French Navy, Brest) to RFFLIRHN (FS Rhin) on TJI, Dakar - Fort de France, cct. (PT)
18553.7: RFTJ: FN Dakar 1710 ARQ-E3 192/400 Format Ligne + CdeV on TJI cid. (RH2)
18560: BMF Taipei Met 0120 FAX 120/576 GMS infra red image for central W Pacific. (ML)
18560.0: BMF: Taipei, Taiwan 15.30 FAX 120/576 Taipei Meteo with WX forecast in Chinese. (PT)
18594: US Customs Comms Center Orlando 1924 USB wkg 203 in voice and PARKHILL voice scrambler. (MADX)
18635.0: NKT, ALGERIAN EMB NOUAKCHOTT MIL.STD 188-141A ALE on USB. Clng MAE1/Algiers. Also at 1033. (DW)
18757.0: RFFIC: Guerre Dipermil Paris 1445 fec-a 192/400 Pages of mixed FF/letsub to many callsigns, some very difficult to read! Increasing use of letter sub in callsigns is confusing, as intended no doubt! (RH2)
18757.0: RFGW: FAF Villacoublay 1448 fec-a 192/400 Msg\FF to many unreadable callsigns on RCF cid. (RH2)
18757.0: P6Z: MFA Paris 1454 fec-a 192/400 Clg H6L (Algiers) then letsub mix. (RH2)
18943.0: UNID PICC// On standby. No app tfc thru 1700z. (DW)
18944.7: RFHJE: FN Papeete 0731 ARQ-E3 96/400 CdeV on HJL cid. (RH2)
18986.7: RFHJ: FF Papeete 0946 ARQ-E3 100/400 CdeV on HJI cid. (RH2)
19031.7: No-Call: Algiers, Algeria 11.50 ARQ Pakistan embassy, PAREP ALGIERS, working Foreign Islamabad and vice versa. Also "PAREP UN GENEVA IS ALSO WAITING". (PT)
19031.7: No-Call: Algiers 16.00 ARQ Pakistan Embassy, PAREP ALGIERS, with MOST IMMEDIATE tfc. (PT)
19031.7: UNID: Paki Diplo 1616 Twinplex 100/170 Some EE but mainly IRS mode — strong sigs! (RH2)
19036.4: No-Call: Nouakchott, Mauretania 16.20 Coquelet 8 Algerian embassy with tfc to MAE, Algiers. (PT)
19145.7: RFTJ: FN Dakar 1550 ARQ-E3 192/400 Betas — used to be 200bd? (RH2)
19498.7: RFHI: FF Noumea 1603 ARQ-E3 100/400 Betas - strong sigs! (RH2)
19629.5: ZSC: Capetown R 0950 fec WX //12601.0 & 4214.0 kHz — nothing on 8 & 16 bands! (RH2)
19850.0: V5G: MFA Bucharest 1115 Rou-FEC 164.5/400 Online crypto. (RH2)
20086.7: wzgzkpk: Egy Emb Kinshasa 1040 ARQ Msg\AA to Cairo. (RH2)
20179.7: RFFLC: Toulon, France 11.00 ARQ-E3 100/400 CECMED with tfc to RFVICS on IRE, Paris - Reunion, cct. (PT)
20340.0: ADZ, ALGERIAN EMB AGADEZ MIL.STD 188-141A ALE on USB. Clng MAE/Algiers. (DW)
20452.0: ADZ, ALGERIAN EMB AGADEZ MIL.STD 188-141A ALE on USB. Clng MAE/Algiers. (DW)
20452.0: NKT, ALGERIAN EMB NOUAKCHOTT MIL.STD 188-141A ALE on USB. Clng RBT/Rabat [data]KL. Also 1025 [data] LK. (DW)
20452.0: RBT, ALGERIAN EMB RABAT MIL.STD 188-141A ALE on USB. Responds to NKT (DW)
20452.0: MAE, MFA ALGIERS MIL.STD 188-141A ALE on USB. Clng ADZ/Agadez. Also at 1010z [data]L. (DW)
20469.0: AXM37: Melbourne, Australia 15.15 FAX 120/576 WX chart for Australasia, very poor rx. (PT)
20573.0: UNID: Italian Diplo 0600 Rs-ARQ 228.6/170 Short bursts like test trans! Also heard on 19237.0, 19873.0, 17457.0, 23374.0 & 18771.0 khz, during following 30 mins. Seems the Italians are either testing or reviving their old African net, seldom heard over past year or two! No II words seen en clair but some freqs carried the new 32LG code. (RH2)
20633.7: RFVIXL: Reunion 13.25 ARQ-E3 100/400 Svc msg to RFFIVAR on REI cct to Paris. (PT)

20716.7: FF UNID ARQ/E3//192/E/400 8rc. Betas. No app tfc thru 1440. (DW)
20754.5: UNID: ICRC? 1631 G-Tor 300/200 Unreadable but seemed much better tune than Pactor!! (RH2)
20932: Romanian Emb Phenian (Pyongyang) ROU-FEC 164.5/400 part msg in Romanian. (ML)
20989.7: No-Call: Cairo, Egypt 11.50 ARQ/FEC MFA calling Beijing embassy, selcal OOVQ. (PT)
22380.5: UIW: Kaliningrad R 1650 FEC Tfc\RR w TR Kapitan Churilob. (RH2)
22380.5: UIW: Kaliningrad R 1606 ARQ ID/Marker. (RH2)
22573.0: PKX: Kakarta, Indonesia 15.00 CW Marker tape. (PT)
22951.0: HBD20: MFA Berne 1520 ARQ 5 LG to Ammanam, Khartoam & Cairean. (RH2)
22963.0: HBD20: Bern, Switzerland 11.25 ARQ MFA calling BMEX selcal, Buenos Aires embassy. Contact made but no tfc sent. (PT)
23115.3: Unid: Poss Sofia, Bulgaria??? 13.40 ITA2 75.470 Lots of messages trying to set up circuit eg "SRI OM IMPOSIBLE VRK NV VRK SUR INTERNET" and " JPS PSE VRK ZMD." Bulgarian MFA???? (PT)
23190.0: P6Z: MFA Paris 1540 fec-a 192/400 Clg N2G (San'a). (RH2)
23263.4: HGX21: Budapest, Hungary 14.28 DUP-ARQ 125/170 MFA with tfc in HH to HGX44, Baghdad embassy. (PT)
23265.5: HGX21: MFA Budapest 1435 Dup-ARQ 125/170 Msg\HH to HGX44/Baghdad. (RH2)
23337.0: HAW: Ascension 0811 Ale/USB SND. (RH2)
23337.0: JDG: Diego Garcia 0814 Ale/USB SND. (RH2)
23337.0: PLA: Lajes Field 0849 Ale/USB SND. (RH2)
23479.5: UNID: British Mil. 12.59 Piccolo Idles all afternoon. (PT)
23781.7: No-Call : Jakarta, Indonesia (???) 13.05 ARQ Egyptian embassy (Q?WFN-WFHK - Jakarta???) with tfc to Cairo. (PT)
24370.0: RFGW: Paris, France 11.40 FEC-A 192/400 MFA with 5-lg tfc to N2G, Sanaa embassy. (PT)
24370.0: RFGW: MFA Paris 0920 fec-a 192/400 Pages of 5LG/letsub. (RH2)
24460.0: UNID PICC//VFT 2 chan piccolo vft on USB.(DW)
24460.5: UNID PICC// 24460.510. Ch1 in VFT (Eng) on standby. Offair 1537. DW)
24537.0: UNID: Maevista Rome 1551 Rs-ARQ 228.6/170 Msg\II to Vislago Lagos.(RH2)
24537.0: UNID: Vislago Lagos 1120 Rs-ARQ 228/170 Tfc/II to Maevista Rome. RH2)
24587.0: UNID: Maevista Rome 1515 Rs-ARQ 228/170 Msg\II to Vislago Lagos Later same day heard RS-ARQ on 20573.0 and 19873.0 kHz; both good synchs but nil on screens! These last two freqs have not been heard here for a year or so! (RH2)
25170.0: UDK2, MURMANSK RADIO CW Msg at hi spd [40wpm], then s/off. (DW)
25227.0: HBD46: Havana, Cuba 12.15 ARQ Swiss embassy calling Bern selcal, KPVP. Makes contact but after brief op chat in GG shuts down.(PT)
25255.0: UDK2, MURMANSK RADIO CW Wkng ships, also "4LS de UDK2 QSX 25170 k".(DW)
25350.0: 5AB, TRIPOLI RADIO CW Marker "CQ de 5AB" (spur + 3rd harmonic of 851 kHz).(DW)
26132.5: ZSC, GW NODE CAPETOWN CW Chan free marker (Globe) "ZSC."(DW)
26135.4: 8PO, GW NODE BARBADOS CW Chan free marker (Globe) "8PO." (DW)

Our contributors this month are:

DW	Day Watson
MADX	Mid Atlantic
ML	Murray Lehman
PT	Peter Thompson
RB	Rick Barton
RH2	Robert Hall
RP	Ron (Middle Atlantic Milcom)
TS	Tom Sevart

U.S. Coast Guard Cutter Ingham.

Again, many thanks to each of you for helping make the logs interesting and varied. Your hard work is always appreciated.

Next Month

Next month I will look at what services a modern radio communications company like Global Wireless is offering. As you will find, the advent of the Internet has had a significant impact upon the evolution of modern radio communications. E-mail is the preferred mode of information transfer today, and I will be looking at how this is being accomplished.

While we may have lost CW and hand keys, the use of computers and the Internet now allow friends and families — not to mention businesses — to remain in direct contact with people at sea through conventional E-mail accounts. The ease and convenience of such methods over CW is certainly a boon for all concerned.

So, stay tuned for more exciting information! May all of your monitoring sessions continue to be enjoyable and productive. Please continue to pray for all of our people in the safety and military service and those of our allies who have joined them. ■

The Cutter Ingham

The *Ingham* on which Walter J. Kane III served as Radio Officer was one of the most decorated vessels in U.S. service, with 18 ribbons during a career of over 50 years.

Commissioned in 1936, the *Ingham* took part in 31 World War II convoys, six Pacific patrols, and three Vietnam tours.

In 1942 Cutter *Ingham* sank German U-boat 626. As a result of her distinguished service, Ingham earned the highest award a U.S. man-of-war can receive!

In fact, Cutter *Ingham* held TWO Presidential Unit Citations; one for WW-II North Atlantic duty, and another for Vietnam service. The Citation rated a distinct pennant to fly from the main trunk, instead of a ribbon.

Cutter *Ingham* possessed a Presidential Unit Citation pennant with a white star on it, signifying the second award.

In recent years, the cutter tracked illegal boat immigrants and drug runners.

Decommissioned in 1988, she is now a museum at Charleston, S.C., and is open for onboard tours.

Pirate & Alternative Radio *(from page 49)*

WAIR, 6955 USB at 0611 with mention of All India Radio said the operator was Ravi Yardbrown. Before sign-off at 0643 said "Thank you for listening to WAIR. Turn your friends on to Pirates and shortwave radio listening."

Ultra SW, 6955 at 0401 with Pink Floyd documentary and music. (Lee Silvi, OH)

WJFK (or WJFK copycat) 6952 (approx) heard at 1405 with "Abraham, Martin and John." Exact frequency hard to pinpoint as the audio was muffled and the signal seemed wide. (Silvi, OH)

KTVI (?) 6925 at 0200 with music, IDs and an old drop. (Silvi, OH)

Span Radio, 6924.9 at 0600 with two hosts and all programming about spam. Dedication to Radio Free Jesus. They announced their frequency as **7385** so I assume this was a replay of an older show. (Ed Yeary, W4TEY)

WHYP, 6950 at 0400with James Brownyard and parodies mentioning other DXíers. (Doetzel, BC)

We had quite a nice line-up this time. Your instructions are to "keep them coming!" If you submit logs via the *Pop'Comm* E-mail address, please be sure to let me know who — and where — you are! We figure to have more for you next month. Happy pirate hunting! ■

Technology Showcase *(from page 65)*

You can also use your existing pager and set up how you want to receive incident pages; turn each hour on or off, at your discretion. For $16.95 a month IPN also offers alphanumeric pagers with complete U.S. and Canadian coverage, or you can use your own pager (yes, your existing alpha-pager or PCS phone) for as little as $4 a month. But remember, the IPN service that gets you connected to 24-hour-a-day emergency pages sent to your E-mail address is only **$4 a month**.

Frankly, I rarely "guarantee" a product or service, but I absolutely *guarantee* that you'll be super satisfied with the IPN service — and if you're not satisfied at that price, you're just probably never satisfied! I've found IPN a superb way to stay in touch at home and one the road, and I've actually managed to get a couple of "new" frequencies for my scanner in the process.

IPN has a lot planned in the near future for their site that will provide you with even more breaking news resources and information. They just notified me about a complete new lineup of IPN pagers (should you decide to use the paging instead of the basic membership) that start at $69.95, with airtime packages starting at just $16.95 a month.

Be sure to tell the folks at IncidentPage.net you read about IPN in *Popular Communications*, and set up an account today! ■

clandestine communiqué

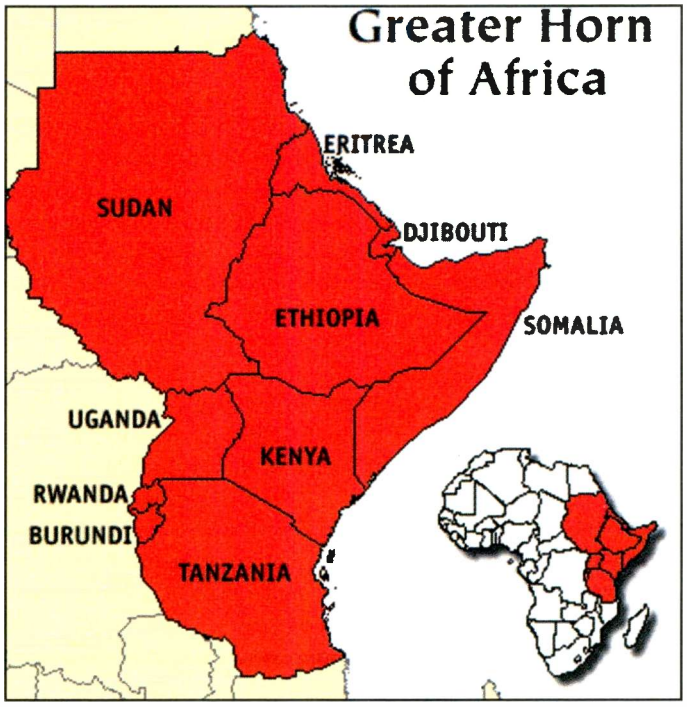
tuning in to anti-government radio

by Gerry L. Dexter

Just What Is Pure?

"Pure" clandestine stations — those operating in opposition to a particular government and broadcasting from a secret location within rebel-held territory of the government which they are fighting — have gotten to be a rarity over the past few years. Instead, we seem to be awash in opposition or surrogate broadcasters who hire time on established transmitters such as the DTK site at Julich, Germany, or one of the many former Soviet transmitter sites. It can be a real job sorting all these out, not to mention keeping tabs on the constant changes in schedules and frequencies. Some are barely active long enough to get noticed by clandestine watchers, much less long enough to get the word out to the people who enjoy tracking them!

We're going to take a chance here and say that one of the newest of the surrogates has to be the U.S. government's **Radio Free Afghanistan**, which Congress decreed should take to the airwaves again, after having been dumped 10 years ago after the Soviets decided they'd had enough of Afghanistan. But with the war there essentially over as this is written we have to wonder if this new effort might be too narrowly cast. It seems to us that a broadcast effort aimed at fighting the idea of Islamic fundamentalism and improving America's image throughout the entire Islamic/Arab world is more in order. Could it be that such a station is in the works right now?



Countries in the troubled Horn of Africa area are the targets of many clandestine broadcasts.

From Ethiopia To Iraq And More

Meantime another new broadcaster concerned with Ethiopia has come on the scene. **Sagalee Oromiyaa** is airing via a former Soviet site on Mondays and Thursdays from 1730 to 1800 on **12120**.

The anti-Tehran **Voice of Iran** is now on the air in Persian from 1630–1730 on **15690** but in some locales suffers from an Iranian jammer.

The Horn of Africa area ("HoH" in DX vernacular) is the target of **Millennium Voice**, which operates on **21550** from 1330 to 1430. It's also using the slogan "Voice of Horn." North American DX'ers are likely to get interference from Voz Cristiana in Chile on the same frequency.

The **Democratic Voice of Burma** is now operating over hired transmitters from 1430 to 1530 on **5945, 15450 and 17845**. And from 2330 to 0030 on **9495 and 11590.**

Jerry Strawman (IA) heard **Denge Mezopotamya (Voice of Mesopotamia)** on **11530** just after 1600 broadcasting in Kurdish to Iraq from a former Soviet site.

Strawman also heard the **Voice of Democratic Eritrea** on **15670** signing on just before 1700 in Tigrinya.

Brian Alexander (PA) noted the **Voice of the People of Kurdistan** on **4061.9** from 0315 tune-in, with martial music and talk in unidentified language. Koran recitations at 0322. Brian notes the parallel outlet on **6995** was stronger. We might add that **6995** is the only one we are ever able to hear. Richard D'Angelo also reports this at 2106 to closing at 2113 with man mentioning Kurdistan and group vocals. Only easterners will bag them at this hour and then only in the winter months.

World Falan Dafa Radio, 5925, noted at 2052 sign-on with test tones, opening IDs by a man and another by a woman followed by long talks with Chinese instrumental music in the background. Also heard on parallel **9945** says Richard D'Angelo (PA)

Bruce Burrow (WA) tentatively heard the **Radio Voice of Afghanistan** on **9950** at 2301 in EE with many mentions of Afghanistan and related items. D'Angelo had this one from 1320 with open carrier, two minutes of test tones at 1326 and programming beginning abruptly with instrumental music and mentions of Afghanistan, then news and more music. There was an apparent language change (Pashto to Dari) at 1345 as the signal began to fade. Robert Montgomery (PA) had this at 1315 with carrier on and off several times before tones began at 1326 and programming started at 1330 with possible national anthem, man announcer and call to prayer, all in what sounded like Pashto. Off at 1430. Ed Newbury in Nebraska caught this at 1405 with mentions of the Tailban, the war, etc.

Radio Nacional de RASD (National Radio of the Saharan Arab Democratic Republic) on **7460** is being heard well now that WWCR has vacated the frequency. Robert Montgomery

(PA) had a tentative log on them at 2149 with talks in Arabic and Middle Eastern music and a shouting announcer. Strawman had them at 2110 with local music. Robert Brossell (WI) had them from 2130 to 2230 with music and an excited AA announcer. The Polisario Front operates this station with an address in Algiers and another in Switzerland. We'd be very interested in hearing from anyone who has managed to dig a QSL out of them over the past year or so!

D'Angelo also heard ethiopian-aimed **Radio Rainbow, 11840** at 1900 to 1959 close. They opened suddenly in Amharic with an ID and other announcements and then news. Richard says the format is mainly long talks but there are some nice music features as well. Sign off announcements at 1958 and off at 1959.

The **Voice of Freedom**, aimed at Eritrea, was heard by Montgomery on **6965** at 0325 with African-like music, some U.S. pops and annoucements in an unidentified language.

Pete Becker in Washington State noted the **Voice of National Salvation**, beamed to South Korea from the North on **4450** in Korean at 1223. Pete notes it wasn't jammed as badly as in the past.

Marty Foss in the Philippines noted another Korean clandestine, **Voice of the People**, on **3912** at 1532 in KK. Also by Rick Barton (AZ) at 1245. Becker also had this one on **6600** at 1145.

Some very nice reporting this time, which is very likely thanks to there being so many more broadcasters of this ilk now in operation. Our gain, to be sure! Please keep the logs coming, as well as any address/QSLing news, information on the location of the transmitters involved, and copies of QSLs received! Many thanks and, until next month, good hunting! ■

Our Readers Speak Out *(from page 7)*

output, antenna, etc. Also, if people in the area have turned to Channel 9 in the past and got no monitor or answer, why all of a sudden will they turn on Channel 9? She did not say how long each day and if she had the squelch turned down or up.

I will agree that for such a large area that no calls were received on Channel 9 sounds funny, which is why I ask about the CB unit and antenna. Did she contact any REACT teams in the area? I'm a firm believer in CB radio and what it can do. Yes, the cell phone can be faster, but some areas it may not work, but I guess the same can be said about CB and other services. I'm not sure that CB was given a fair trial, but in defense of it, CB still has its place. I still feel good when I listen on Channel 9 and help that person who has broken down or is lost. CB is the Citizen's Radio. We can find our friends and don't have to pay for our "air time."

Leonard Lykens
President H.E.L.P. (Harrisburg Emergency
League of Pennsylvania
Harrisburg, PA

Fixing CBs

Dear Editor:

Sometimes I see letters requesting information regarding repairing radios (CB, ham, marine, etc.) I've been repairing the older tube and new solid-state radios for 25 years and am a licensed tech. I would love to fix these radios in need of repair — please pass it on for those in need.

Sincerely,
William Bannister
317 S. Arch Road
Richmond, VA 23236

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loose connection

radio communications humor

by Bill Price, N3AVY

Sending Hot Dogs via FAX

It's a long commute from Cowfield County to my high-paying job in electronics (as described in the ad for the HPJIE Correspondence School), and that gives me lots of time to think. Then too, the workday can take me many more miles in heavy traffic, as it did one recent day while on the way to "see if it's plugged in" with my fearless sidekick Steve Bradley (not his real name, which is Dave). To avoid road rage, we began to discuss "stuff," and the subject of electronic inventions came up. Actually, he referred to a FAX machine which was invented in the 1600s (he thinks) which was based on a swinging pendulum, paper fastened below, and some ink. If he remembers correctly (and he was NOT at Woodstock, so the chances are good) the inventor was Italian and his major problem was that he could not find a radio in all of Milan, or Venice, or wherever it was he was looking. I could have told him to just wait a while, but I wasn't there.

After Dave's inventor gave up his quest for the radio (he apparently never looked for a telephone either), he tried what was left — mechanical coupling between the sending pendulum and the receiving pendulum. I wish I'd seen the TV special myself, but it's just as good that I let my imagination work on the design. While we sat in traffic, we came up with a few ideas of our own for pre-electronic communication.

I pondered the big pendulum swinging back and forth, with Michelangelo's hand guiding it across a magazine cover, and a really long string stretched across one of the canals of Venice, so that he could send a copy of the picture to a friend across the "street." For the life of me, I couldn't figure how to make two pendulums swing at the same rate without using a solid bar between them, and that would severely limit the usefulness of the early FAX. A basket on a pulley would have been easier, but they'd have had to send the original. I guess color faxing would have been too difficult at the time too.

He told me too of a wireless telephone that someone invented long ago. Instead of connecting your phone to two wires and off to a remote switchboard and on to your neighbor, you connected your phone to two metal rods, which you drove into the ground, to a certain depth and at a certain distance apart.

"To talk farther," he said, "You just put the rods farther apart."

"So people on a narrow city lot couldn't talk as far as people on a farm in the country?" I asked.

"Well of course not!" he said. "People on a farm need to talk farther away anyway, so it works out."

So Dave and I wondered what invention we might think of that would be the ultimate invention — one that would free us at last from our high-paying jobs in electronics and allow us the freedom to have our own talk show. Dave's light bulb lit up first.

"A Beemer! We can make a Beemer!" he said.

"Someone already did. I've got one back at the office. It's an '82, but it still runs ok," I said.

"No—I mean a B-E-A-M-E-R beamer! he said, frustrated. To beam things up! Like Scotty did, buffoon!" Dave knew that the way to my heart was to mention my favorite orchestra instrument.

"Oh," I said, "that kind of beamer! Now I get it. How are we gonna do that?"

"I don't know yet — that's the part we have to invent."

"Oh."

It must have been a good minute or two until he spoke again. "First, we have to disintegrate the thing we're gonna beam. Then we transmit the particles and put them back together on the other end. Sort of like scrambling a TV signal at the transmitter and descrambling it at the other end."

"Yeah," I said, "The descrambling part is always the hardest."

Back at the office, we raided the kitchen for a blender that some former employee had donated to the cause, and took it to our workshop.

"This," he said, "Will be our disintegrator. It may take longer than other devices, but eventually, it will reduce an object to its smallest particles."

"Wouldn't that be painful for humans?" I asked.

"Well, of course! This will be for inanimate objects! We'll get to beaming people after we get the basics down."

Applying my vast knowledge in physics, I began to look around for something that would increase the vibration of the molecules of the object we wanted to beam somewhere. Dave was busy connecting metal rods to the blender, and came back downstairs with a crockpot.

"Where'dya get the crackpot," I asked.

"It's not a crackpot! It's a crockpot!" he replied, showing his ire.

"I was talking to the crockpot," I said.

I found a small 23GHz microwave transmitter which should increase the vibrations in just about any molecules we'd find. I connected a piece of wave guide to the output port and noticed that Dave was connecting two more metal rods — this time to the crockpot.

Noting my curiosity, he said, "It's a re-amalgamator."

"How far apart will you have to put the rods to make it work?" I asked.

He said that six feet ought to do it.

By this time I had set up the microwave receiver across the room from the transmitter, with the wave guide from one aimed at the wave guide from another. (If I have to tell you not to try this at home, you should be in protective custody!)

We took out inventions out to the backyard for initial testing. Hot dogs were chosen for the test objects.

In the end, mine provided lunch. My hot dog was cooked within a few minutes, though not evenly, and it really did transmit some of the test object to the waiting receiver, when it exploded from the internal pressure.

Dave's "Dog-O-Matic" had indeed reduced the dog to its lowest common denominator as well, but no matter how he spaced the rods, none of it ended up in the crockpot.

My microwave radios cleaned up easier than Dave's blender, but his was more fun to watch. As we drive off into the sunset, we call it a draw — 'til next time. ■

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