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JANUARY 2010

COMMUNICATIONS

Shortwave Listening • Scanning • AM & FM • Radio History

Winter Scanning Action Heats Up The Radio

**Listening To The
Voice Of Vietnam, p. 19**

**Buying A Radio In
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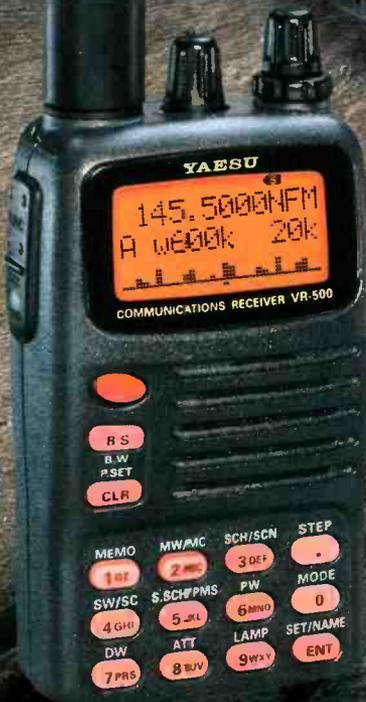
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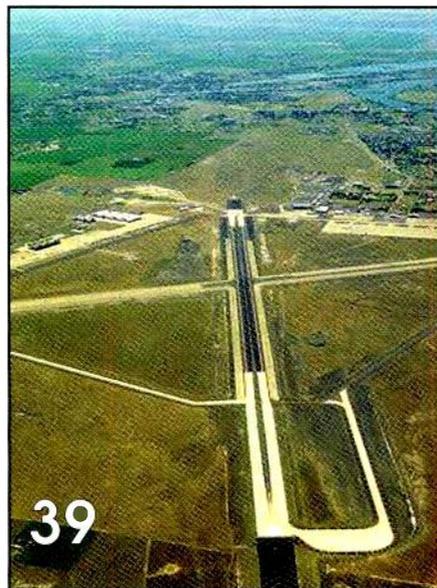
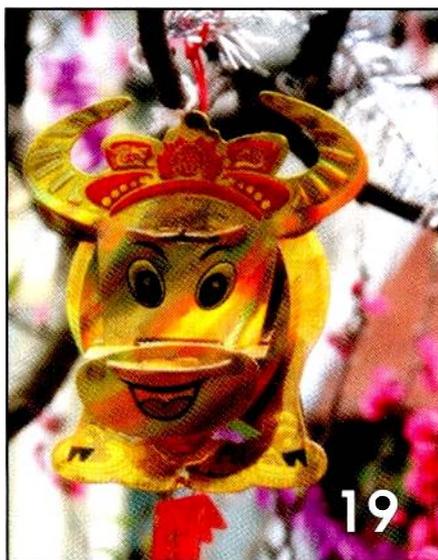


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ON THE COVER

When the temperature drops outside, the scanning action heats up indoors. Stay warm, dry, and informed in your radio shack as you listen to your favorite frequencies and maybe discover some new ones a little farther afield. For some monitoring suggestions, check out “Winter Weather Woes? Stay Home And Turn On The Scanner!” by Mitch Gill, NA7US, starting on page 12. (Cover by Larry Mulvehill, WB2ZPI)

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EDITORIAL

Tuning In

Oh, The Weather Outside Is Frightful, But The Radio Is So Delightful...

by Edith Lennon, N2ZRW

editor@popular-communications.com

How true it is, at least here in the Northeast where *Popular Communications* is nestled. That's why I'm taking the advice of this month's cover feature on wintertime scanning by Mitch Gill, NA7US, and curling up with my radios and some hot chocolate for a cold weather "Shack-cation." I'm doing double duty, though, and also using this nippy time to practice my New Year's Resolutions.

One good thing about inclement weather (by the way, my New Year's Resolution #2 is to try to find at least one good thing about nearly everything; Resolution #1, which I already broke, was to not make any resolutions—I think they're silly) is that it allows us guilt-free radio enjoyment. Mother Nature's encouraging us to stay close to home, we're on hiatus from outdoor chores, and the post-Holiday social lull has set in, so there's no better time to immerse ourselves completely in radio.

And what a time for radio it is. Winter propagation conditions enable us to make more thrilling DX catches, the long chilly nights lure us to drowsily tune distant AM signals into the wee hours, and scanners crackle with action with nearly every sweep of their frequencies.

For scanner listeners, especially, this time of year serves up more than the usual helping of excitement. Local channels will be a-buzz with weather-related communications of all sorts, from the mundane to the dramatic. Winter sees an increase in the number and severity of traffic accidents, airport disruptions, and storm-related emergencies, all with their attendant responders engaged in handling whatever situation gets flung at them. It makes for riveting monitoring.

Of course, even the most chaotic of comms may wear thin if that's what you're used to. But thanks to the miracle

of physics, you can expand your winter hunting grounds without leaving the home hearth. Which brings me to my Resolution #3: Try something new. If your monitoring is getting a little dull, set up a simple antenna, punch in some of the hundreds of frequencies Mitch suggests, and see what's out there on HF. Trust me, occasionally straying from the too-trodden ways helps keep you young. It's worked for me, and it's much easier than changing your diet.

I have to confess, though, that sometimes the seriousness of it all—the police chatter, the international news, the sheer concentration required in the DX quest—can get to me. So this winter I resolved to implement Resolution #4, which is to end each monitoring session, or "Shack-sion," on a note of unadulterated radio fun. Tonight's sign-off of fun is courtesy of Florida Rocks Again!, a radio program and Internet podcast highlighting the Sunshine State's musical history.

I ran across the wonderfully goofy episode #41 of the program, which features music of the Panhandle area from the late '60s. Sure, some tracks were cringe-worthy to the point of whiplash, but heck, they had a beat you could dance to! And who wouldn't be charmed by Bryllig & the Nymbol Swabes, the self-dubbed "Beatles of Chattahoochee High"? No longer heard on its original home, KDHX-FM 88.1, you can still check it out at www.floridarocksagain.garagepunk.com. If you do listen, be sure to pay special attention to the girl-group sirens, the Sandpipers—they're backed by some rock 'n' roll wannabees called The Allman Joys, who would soon change their name to The Allman Brothers Band and make some musical history of their own. Now that's fun!

It just doesn't get better any than this, unless it's accompanied by hot chocolate.

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The handheld BCD396T scanner was designed for National Security/Emergency Preparedness (NS/EP) and homeland security use with new features such as **Fire Tone Out Decoder**. This feature lets you set the BCD396T to alert if your selected two-tone sequential paging tones are received. Ideal for on-call firefighters, emergency response staff and for activating individual scanners used for incident management and population attack warning. **Close Call Radio Frequency Capture** - Bearcat exclusive technology locks onto nearby radio transmissions, even if you haven't programmed anything into your scanner. Useful for intelligence agencies for use at events where you don't have advance notice or knowledge of the radio communications systems and assets you need to intercept. The BCD396T scanner is designed to track Motorola Type I, Type II, Hybrid, SMARTNET, PRIVACY PLUS, LTR and EDACS* analog trunking systems on any band. Now, follow UHF High Band, UHF 800/900 MHz trunked public safety and public service systems just as if conventional two-way communications were used. **Dynamically Allocated Channel Memory** - The BCD396T scanner's memory is

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Bearcat 92XLT 200 channel handheld scanner.....	\$105.95
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Bearcat BR330T handheld shortwave/scanner with Fire Tone out.....	\$274.95
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Bearcat® BC246T Trunk Tracker III

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Size: 2.72" Wide x 1.26" Deep x 4.6" High

Frequency Coverage:

25.0000-54.0000 MHz., 108.0000-174.0000 MHz., 216.0000-224.9800 MHz., 400.0000-512.0000 MHz., 806.0000-823.9875 MHz., 849.0125-868.9875 MHz., 894.0125-956.0000 MHz., 1240.0000 MHz.-1300.0000 MHz.

The handheld BC246T TrunkTracker scanner has so many features, we recommend you visit our web site at www.usascan.com and download the free owner's manual. Popular features include **Close Call Radio Frequency Capture** - Bearcat exclusive technology locks onto nearby radio transmissions, even if you haven't programmed anything into your scanner. **Dynamically Allocated Channel Memory** - Organize channels any way you want, using Uniden's exclusive dynamic memory management system. 1,600 channels are typical but **over 2,500 channels are possible** depending on the scanner features used. You can also easily determine how much memory is used. **Preprogrammed Service Search (10)** - Makes it easy to find interesting frequencies used by public safety, news media TV broadcast audio, Amateur (ham) radio, CB radio, Family Radio Service, special low power, railroad, aircraft, marine, racing and weather frequencies. **Quick Keys** - allow you to select systems and groups by pressing a single key. **Text Tagging** - Name each system, group, channel, talk group



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The Weirder Side Of Wireless

by Staff

Lethal Waters: The Strange Ending

A California jury has awarded \$16.57 million to the survivors of Jennifer Lea Strange in a wrongful death lawsuit against a local radio station, The End (KDND 107.9). The 28-year-old Rancho Cordova mother of three died after participating in a water-drinking contest conducted by the station in a give-away promotion called “Hold Your Wee for Wii.” Contestants were instructed to drink as much water as they could in a three-hour period without urinating or vomiting; the contestant who ingested the most was to receive an Nintendo Wii video game system. Strange succumbed hours later at her home on January 12, 2007. The Sacramento County Coroner’s Office determined that she died of acute water intoxication.

In the suit, the jury found the local station entirely at fault, though defense attorneys argued that there was “contributory negligence” on the part of the mother. The jury did not agree and said that the radio station should have determined the health risks of the contest and have a medical professional present during the contest and that its negligence caused the death of Ms. Strange.

A Real Radio Dedication

Love NPR but hate choice? Then the NPR Radio is for you. According to the *Earth Times* website, it’s the first Internet radio with an exclusive menu dedicated solely to NPR stations and programs. Within the NPR realm there’s plenty to choose from, and fans can personalize their NPR experience, and easily switch back and forth between the local NPR member station and accessing on-demand NPR content and programs from NPR.org and stations across the U.S. The NPR Radio sells for \$199.99 and is currently available from www.shop.npr.org or www.LivioRadio.com. Proceeds from the sale of the radio support NPR programming and NPR stations. Who says radio’s too homogenized?

Using Twitter Can Be A Riot

Elliot Madison, a 41-year-old social worker from New York City, was arrested on September 24 at a motel in Pittsburgh, Pennsylvania, during the G-20 conference. While anarchist mobs con-

fronted local police in the downtown area during the gathering, Madison was listening to a police scanner and relaying information on Twitter to help protesters avoid the heavily armed cops, according to Ryan Singel writing for *Wired Magazine*. Madison was charged under a federal anti-rioting law that carries a penalty of up to five years in prison.

A week later, the Joint Terrorism Task Force, armed with a search warrant and backed by a federal grand jury investigation, raided Madison’s house, seizing computers, mobile phones, camera memory cards, books, air-filtration masks, bumper stickers, and political posters, citizen emergency kits, and other “evidence” like *Buffy the Vampire Slayer* DVDs and a needlepoint depiction of Lenin that belonged to Madison’s wife’s grandmother.

Madison and his lawyer say the search violates the Constitution’s protections against general searches and prosecution for political speech. A spokesman for the New York U.S. Attorney’s office, Bob Nardoza, declined to comment, citing rules forbidding officials to speak about grand jury investigations, the report continued.

Move Over Freud: There’s A New Analyst In Town

Designers of new voice analysis software claim it can detect depression over the phone, according to an article in *Popular Science*. To the trained—or at least sympathetic—ear clinically depressed people exhibit vocal cues, such as speaking in a slow, halting monotone pattern. The software supposedly can pick up on such cues over the phone and alert healthcare professionals to possible depression.

Using algorithms developed by MIT’s Media Lab that pick up on subtle vocal patterns in speech related to depression, the software’s mathematical modeling measures consistency in tone, speech fluidity, vocal energy, and level of engagement, rather than analyzing the words themselves. Large-scale trials have already begun under the direction of Cogito Health, an MIT spinoff company, and should produce the first published results in 2010. Future enhancements may include screening for post-traumatic stress among military veterans, the report continued.

News, Trends, And Short Takes

by D. Prabakaran

HAARP Scientists Create “Artificial Ionosphere”

An experiment that fires powerful radio waves into the sky has created a patch of “artificial ionosphere,” mimicking the uppermost portion of Earth’s atmosphere. The research has not only caused glowing dots to appear around these patches, it could also provide a new way to bounce radio signals around the globe. The High Frequency Active Auroral Research Program (HAARP), near Gakona, Alaska, has spent nearly two decades using radio waves to probe Earth’s magnetic field and ionosphere. Todd Pedersen, a research physicist at the US Air Force Research Laboratory in Massachusetts, who leads the team that ran the experiment at HAARP, said “Instead of depending entirely on the natural ionosphere to redirect radio waves or shortwave broadcasts, we are now getting the capability that we can actually produce our own little ionosphere.”

(Source: www.nature.com)

Pirate Radio Operator Banned From London Rooftops

A man has been banned from every rooftop in London after he pleaded guilty to installing pirate radio equipment on a tower block in the city. Kieran O’Sullivan received the antisocial behavior order (ASBO) following a successful prosecution by UK media regulator Ofcom. He also received an 18-week custodial sentence suspended for 12 months, a three-month curfew, a £1,200 (approximately \$1,990 USD) fine, and had his radio equipment seized. Ofcom worked with Camden Council and police to secure the prosecution following complaints from residents about underground radio station Freeze FM operating from estates in Hampstead. Residents had complained about pirate radio operators using rooftops to install equipment, which caused a nuisance to residents and damaged council property.

(Source: Ofcom)

Vatican Radio & RVA In Transmitter Airtime Swap

Vatican Radio will use the Radio Veritas Asia (RVA) transmitter in the Philippines on a regular basis for its second morning transmission to India at 0200–0320 UTC. The service was previously relayed via a Russian transmitter and, later, via Santa Maria di Galeria in Italy. Comprising Hindi,

Tamil, Malayalam, and English (a repeat of the 0040–0200 transmission) at 0200–0320, it can be heard on 15460 kHz. In exchange, Radio Veritas Asia will use the Santa Maria di Galeria transmitter of Vatican Radio in Urdu at 1430–1457 on 9585 kHz and Filipino to the Middle East at 1500–1553 hrs on 11715 kHz.

(Source: DXAsia)

Radio Vlaanderen Internationaal Ends SW

Radio Vlaanderen Internationaal (RVI) confirmed it is dropping its shortwave transmissions. RVI had been broadcasting a limited shortwave service to expats in southern Europe, but replies to a recent listeners’ questionnaire showed a declining audience for this service in favor of satellite and Internet.

(Source: RVI website)

Radio Sweden To Stop Issuing QSL Cards

Radio Sweden announced that it is discontinuing mailing QSL cards to listeners in response to reception reports. Additionally, it will publish its broadcast schedule on the Web only. Listeners will find schedules for all languages under the heading “Frequencies/Tider och frekvenser” on the SR International homepage. By request Radio Sweden will continue to mail printed versions of its schedules in Swedish and other languages.

(Source: Ingemar Löfgren, Head of SR International)

VOA Somali Permitted To Resume Operations In Puntland

The Ministry of Information and Telecommunication of the Government of Puntland State of Somalia permitted the Voice of America’s Somali Service broadcasts to resume operations. On October 1, 2009, FM radio stations in Puntland that re-broadcast daily VOA Somali Service programs were ordered to halt the broadcasts after the service aired an interview with a moderate Sufi Muslim leader. Puntland is relatively peaceful compared to the rest of Somalia, which has been wracked by civil war since 1991. In 2008, the Horn of Africa nation was listed as the third most dangerous in the world for reporters by the New York Committee to Protect Journalists, after Iraq and Sierra Leone.

(Source: GaroweOnline.com)

Capitol Hill And FCC Actions Affecting Communications

by Richard Fisher, KI6SN

APCO Lauds Extension Of Interoperable Communications Grant Spending Deadline

U.S. Senate action that extends a spending deadline to 2012 for the Public Safety Interoperable Communications (PSIC) grant program has been applauded by the Association of Public-Safety Communications Officials (APCO). According to the organization, the "PSIC program was originally established by Congress to provide one-time funding of \$1 billion to state and local governments toward achieving interoperability among our first responders."

"The public safety communications community continues to be constrained by financial issues as well as time constraints when it comes to technological progress," APCO International Executive Director George Rice said. "APCO International is pleased Congress has recognized the importance of this program in achieving interoperability."

APCO said in a statement that it "continues to urge Congress to fully fund the follow-on to the one-time PSIC funding, entitled the Interoperable Emergency Communications Grant Program (IECGP), at its maximum authorization level of \$400 million for Fiscal Year (FY) 2011."

California Company Fined By FCC For Illegal Use Of Amateur Radio Frequency

The FCC fined a California construction company \$4,000 for illegally "using amateur frequencies to conduct business." Shimmick Construction Co., Inc./Obayashi Corp., Joint Venture (Shimmick-Obayashi), licensees of stations WQER756, WQEN793, WQJI360, and WQKG818, committed repeated violations "by failing to operate only in accordance with the rules applicable to their particular service as set forth in the Commission's Rules and with a valid authorization granted by the Commission," the FCC said.

"On two separate occasions in May 2009, the FCC's Los Angeles office received complaints that a concrete delivery company was operating numerous mobile stations in Yorba Linda,

California, on 146.025 MHz, a frequency allocated exclusively to the Amateur Radio Service," FCC documents said. Agents from the Los Angeles office used radio-direction finding techniques to locate the transmissions, which "were not identified by call sign," the report said.

"The Los Angeles agent confirmed that the frequency 146.025 MHz was programmed into frequency selector position No. 5 on numerous Motorola model CP200 portable transceivers that were being used to coordinate construction operations throughout the site," the FCC Notice of Apparent Liability stated. "The Shimmick-Obayashi construction supervisor told the Los Angeles agent that he did not know anything about a license for the radios, but that he would immediately stop using the Amateur Radio Service frequency programmed in position No. 5 on the Motorola CP200 transceivers."

According to the ARRL, Southern California radio amateurs assisted in the FCC's investigation.

Sen. McCain Opposes FCC Over "Net Neutrality" Stance

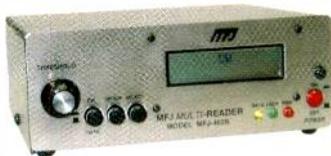
On the same day the FCC took a step toward creating net neutrality rules, U.S. Sen. John McCain (R-AZ) introduced legislation that would block the Commission from doing so. McCain in October announced introduction of the Internet Freedom Act, "which would keep the FCC from enacting rules prohibiting broadband providers from selectively blocking or slowing Internet content and applications. Net neutrality rules would create "onerous federal regulation," McCain said in a written statement, according to a report from Reuters news service.

The FCC had voted to begin the rulemaking process to adopt net neutrality rules. "The rules, as proposed, would allow Web users to run the legal applications and access the legal Web sites of their choice. Providers could use 'reasonable' network management to reduce congestion and maintain quality of service, but the rules would require them to be transparent with consumers about their efforts," Reuters said.

The new rules would make formal net neutrality principles that were put in place at the FCC in 2005, the news service said.

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"World Radio TV Handbook" says MFJ-1024 is a

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MFJ-1024
\$159⁹⁵

Indoor Active Antenna Rival

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

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MFJ-1045C
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MFJ Shortwave Headphones



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Two-Way Traffic?

by Rob de Santos
commhorizons@gmail.com

“More recently, a company called Jelli Radio is marketing a service where listeners determine in real time what music is played on the air. Now there’s two-way communication!”

Last month, I wrote about how the Internet is transforming communications. Continuing on that theme, this month we’ll look at the question of communications as a one-way, two-way, or multi-way street. Do the numbers of pathways change the nature of communications, and if so, how? Does the quantity of information have a relationship to the size of the audience? What does that imply for the future of our favorite pastime?

In the early 1990s, the term “information superhighway” came to describe the explosion of high-speed connectedness the Internet and technologies like fiber optics would bring. Initially, many assumed that this was yet another one-way stream of information. You might post information on a webpage about your favorite band, or a company would post information on its product. What wasn’t always clear was that superhighways were almost always two-way—or multi-way—streets. More than one corporation was embarrassed to get unfavorable—and public—feedback that they didn’t expect. Judging from recent news reports, some still do.

Radio and television broadcasting have been one-way media for the most part. Arguably, part of the problem with the survival of shortwave has been the lack of communication from the audience back to the program producers and, more importantly, those who fund them. Local radio and television has had it a bit better, but still depends on “audience measurement” and “audience research” rather than direct feedback. The Internet is supposedly changing that, but is anyone listening?

One definition of conversation is the “exchange of thoughts, opinions, and feelings.” There is no question that if the communication medium is ham radio or mobile phones, a conversation is probably taking place, but in other areas it’s not so clear-cut. In broadcasting, the Internet brought about new ways of completing the conversation. Facebook, for example, provides a method for consumers to offer feedback (if it’s utilized that way); some stations allow fans to vote “up” or “down” on particular music or programs.

The amount of information available on the Internet is massive. No one knows for sure just *how much* information is “out there,” but I’ve seen estimates from the terabyte range all the way to the zettabyte range. As Twitter seems to indicate, the shorter your “message,” the more people pay

attention. Inversely, the longer your message, the fewer listeners you have. It’s been called the “Inverse Law of the Internet,” but I suspect we can apply it to all communication. That’s not saying fewer words are better, just that the size of the audience is inversely related to the quantity of information in the message.

Radio is changing as a consequence of these developments as well. Do you use Pandora or Slacker? The concept behind Pandora, Slacker, and similar audio services is that you can be your own programmer and choose the music you like. More recently, a company called Jelli Radio is marketing a service where listeners determine in real time what music is played on the air. Now there’s two-way communication! Already at least two radio stations in the U.S. are offering Jelli Radio to their listeners. Moreover, the messages going in one direction are limited in size, but are numerous, while the information going in the opposite direction is steady and continuous.

What if you could press a button on your radio or television remote and it instantly told the broadcaster whether you liked that station or song or advertisement? The concept isn’t as new as you might think. Interactive television was tried as part of an early cable-era experiment called Qube, which was developed by Warner Communications (a predecessor of Time Warner Cable) late in 1977. Although Qube has entered communications history, it did have a lasting effect on television.

In the future, I believe the audience will be able to provide much greater and immediate feedback on everything we see and hear. This may be for the best overall, but it could have some unfortunate side effects. A television program that fails to get an immediate audience response might be cancelled before it has a chance to succeed (even more quickly than it is now!). A radio station that does something innovative might fail to get the response advertisers desire before it reaches “critical mass.” The majority of fans may choose to ignore a groundbreaking band in favor of an artist who’s been heavily promoted but isn’t very good.

These tools give us both the chance to save or promote programs and stations that we don’t have today. They may also give us the chance to block innovation and progress and drive out the new and unusual in favor of what we already know.

What do you think? Give me some communication in the other direction, and let me know if you agree or disagree.

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Winter Weather Woes? Stay Home And Turn On The Scanner!

Here Are Some Hot Frequencies To Go With Hot Chocolate

by Mitch Gill, NA7US

Snow, ice, floods, wind, waves... No it's not the Apocalypse, it's just winter in many parts of the country. Unless you live in an area blessed by mild weather, there will be many times this winter that you just don't want to leave the house, and coincidentally, those are probably the *best* times to turn on the scanner to listen for what's happening on all those busy frequencies. So, if you find yourself afflicted by the nastier stuff that Mother Nature sometimes throws at us, don't try to beat it, join it—from the comfort of home by way of your favorite scanner.

Baby, It's Cold Outside

So, what if it is? That just means you have more time inside to monitor your favorite local frequencies. With the change in weather and all that means for our roadways, runways, waterways, and more, winter is a time of unique scanning opportu-

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nities. As much as we don't wish any harm to anyone (and, in fact, we can provide a lot of assistance to those in need), winter simply serves up some of the most interesting monitoring of the year. Airports can be shut down, blizzards can stop a city, ice storms arrive with little or no notice, floods can decimate, and coastal ships find themselves in hazardous waters. And that can translate into some mighty fascinating radio traffic that can have you glued to the edge of your monitoring shack chair.

Beyond The Neighborhood

It's also a great opportunity to try something new, and maybe find some interesting frequencies to monitor that are farther afield. HF is still my absolute favorite. I enjoy listening to US Coast Guard stations thousands of miles away in the Caribbean, and to FEMA during a declared emergency in other states. You might want to try listening to a maritime net on the Baja Peninsula. Pretty cool, huh? Now I know that some of you live in apartments or have restrictions for antennas, but you, too,

can listen to HF frequencies as long as you have a radio that covers the band.

As for the antenna, a random wire loop can work well inside your house or apartment. I've made them for my radio and they're easy to construct. A simple approach using 30 feet of small gauge wire running in a loop taped to the ceiling will work. Take one end and connect to the copper center wire of a piece of coax and the braided side to the other. Then connect the other side to the radio. If it requires a PL259 connector, solder one on to the cable. Most importantly, be sure to ground the radio chassis. This isn't just for

safety; grounding also has a lot to do with receiving signals, and a good ground is essential. With that, you're on your way.

A Winter Festival Of Frequencies

If you're a scanning monitor, you should have a slew of local public service agency frequencies all set in your scanner, so let's delve into some other ones you might not listen to regularly. The table on the following pages will give you plenty of frequencies to keep you busy when the thermometer drops and the

winds howl. So try them out, pick your favorites, and save them to your scanner.

In winter my favorite thing to do is snuggle with up my wife close to a crackling fire and turn the scanner on for some crackling action. OK, it's *my* favorite thing, not necessarily my wife's, but she loves me anyway.

Enjoy and remember that what you hear may be something of importance to someone. Be responsible and report any hazards, accidents, or strange incidents to your local authorities, especially on the emergency frequencies. Most of all, keep warm!

Hot Frequencies For Cold Weather

518.0	(Sitor-B) US & Canadian CGs, Navigational Telex (NAVTEX)	2872.0	MWARA NAT net
1984.0	(LSB) Virgin Islands/ Antilles/ PR	2958.5	US Navy New Orleans
2054.0	(Fax) US Coast Guard, Kodiak, AK	3023.0	US Coast Guard SAR
2082.5	Intership Safety and Operational Comm, all areas. Also, Intership non-commercial fishing.	3047.0	Canadian Forces MACS
2182.0	Maritime voice calling and distress, wx announcement ch	3122.0	US Coast Guard, safety of flight
2174.5	(Teleprinting) NBDP Distress and Safety	3130.0	US Navy FACSFAC Jacksonville, FL "Sea Lord"
2177.0	(DSC) Coast Stations and Intership DSC Calling	3171.4	Red Cross disaster (F-92)
2187.5	(DSC) Digital Selective Calling Safety/Distress(GMDSS)	3202.0	State Emergency Management ALE/USB (Operation Secure)
2203.0	Intership Safety and Operational Communications. Gulf of Mexico; Also, Intership non-commercial fishing	3216.0	SHARES Regional Coord Net (Night Primary)
2214.0	Intership Safety/ Operational Comm, all areas	3303.0	US Department Of Transportation evacuation F-1
2326.0	State Emergency Management ALE/USB (Operation Secure)	3341.0	FEMA "Foxtrot-6"
2371.0	CAP, all regions	3361.0	SHARES Regional Coord Net (Night Alt)
2374.0	CAP, all regions	3388.0	FEMA
2411.0	State Emergency Management USB (Operation Secure)	3455.0	MWARA CAR net
2414.0	State Emergency Management ALE/USB (Operation Secure)	3573.0	(CW) Carolinas Net
2419.0	State Emergency Management (Operation Secure)	3622.5	(Fax) JMH, Tokyo, weather charts at 0110 and 1910
2422.0	State Emergency Management (Operation Secure)	3696.0	(LSB) Bahamas Weather Net
2439.0	State Emergency Management (Operation Secure)	3710.0	(LSB) Puerto Rico
2463.0	State Emergency Management (Operation Secure)	3810.0	(LSB) CO ARES Primary NVIS Net (Sun., 0800 Local Mountain Time)
2466.0	State Emergency Management (Operation Secure)	3815.0	(LSB) Caribbean Net (Alt on 3940 S. FL, 3950 N FL) WX4NHC/NHW lists this as a night alt freq
2471.0	State Emergency Management (Operation Secure)	3815.0	(LSB) Inter-island 75 meter frequency (24 hr)
2474.0	State Emergency Management (Operation Secure)	3818.0	(LSB) Caribbean
2487.0	State Emergency Management (Operation Secure)	3820.0	(LSB) Maryland Emergency Phone Net
2500.0	WWV wx h+8, 9, 10; WWVH wx h+48, 49, 50, 51	3823.0	(LSB) Amateur use w/MS Red Cross in Katrina
2511.0	State Emergency Management (Operation Secure)	3845.0	(LSB) Gulf Coast West, often takes H&W
2535.0	State Emergency Management (Operation Secure)	3855.0	(LSB) Trinidad Emergency Net
2569.0	State Emergency Management (Operation Secure)	3862.0	(LSB) GULF COAST H&W
2582.0	ZBM - St. George's Harbour Radio, Bermuda	3862.5	(LSB) Mississippi Section Voice Traffic Net
2587.0	State Emergency Management (Operation Secure)	3865.0	(LSB) West Virginia Emergency Net
2638.0	Intership Safety/ Operational Comm, all areas	3873.0	(LSB) Regional ARES Emergency Frequency West Gulf ARES Emergency Net (Night) Central Gulf Coast Hurricane Net Magnolia Section Net Louisiana ARES Net Louisiana Emergency & Tactical Traffic Net (Night) Mississippi Emergency & Tactical Traffic Net (Night) North Texas Section ARES Texas Emergency & Tactical Traffic Net (Night) Texas Traffic Net Night Primary and Gulf Coast common tactical
2670.0	US Coast Guard, MSI broadcasts, announced on 2182 U.S. Coast Guard Liaison and Maritime Safety Broadcasts, Also Intership Safety and Operational Communications in all areas		
2738.0	Intership Safety/ Operational Comm all areas except Great Lakes. Shared with aircraft.		
2801.0	State Emergency Management (Operation Secure)	3905.0	(LSB) Hawaii, Delaware
2802.4	Red Cross F-91 (may be carrier freq for above)	3907.0	(LSB) Coastal Carolina Emergency Net Dy 0000
2804.0	State Emergency Management (Operation Secure)	3910.0	(LSB) Regional Emergency Primary Channel: Virginia primary (alt 7360) Mississippi ARES, Louisiana Traffic Net, West Central Florida Section Net, Central Texas Emergency Net
2812.0	State Emergency Management ALE/USB (Operation Secure)		
2830.0	Intership Safety / Operational Comm Gulf of Mexico only. Shared with aircraft.		

3911.0	(LSB) West Central Florida SKYWARN Net	4426.0	USCG NMC Pt. Reyes, CA, Pacific WX 0430 1030
3913.0	(LSB) NY State	4460.0	State Emergency Management (Operation Secure)
3915.0	(LSB) South Carolina Emergency/Traffic Nets	4466.0	CAP, NE US Primary, SE Alternate
3915.0	(LSB) Massachusetts/Rhode Island	4469.0	CAP, Gulf Coast Hurricane Net, SE Pri, NE Alt
3917.0	(LSB) E Pennsylvania	4490.0	SHARES National Coord Net (ALE/USB)
3923.0	(LSB) North Carolina Evening Net	4506.0	CAP, N. Central US Primary
3923.0	(LSB) Tar Heel Emergency Net (alt 7232)	4513.0	SHARES Regional Coordination Network (Night Alt)
3923.0	(LSB) Mississippi ARES	4557.1	USAF MARS phone patch net, night calling freq
	Always good for SE US H&W	4573.0	SHARES National Net (Alt USB)
3925.0	(LSB) Central Gulf Coast Hurricane Net	4582.0	CAP, National Clg & Emergency, Pacific Alternate
3925.0	(LSB) Louisiana/Gulf/SW emergency alternate		SHARES Use in Katrina
3927.0	(LSB) North Carolina Morning Net, ARES	4583.5	CAP, Tuesday hurricane nets 2100 local in season
3930.0	(LSB) Gulf Coast Hurricane Net alternate	4585.0	CAP, Pacific & Mid-East (Atlantic) Primary
3930.0	(LSB) Louisiana	4601.0	CAP, Rocky Mtn. Primary, Great Lakes Alternate
3930.0	(LSB) North Texas Emergency Net	4604.0	CAP, Great Lakes Primary, Rocky Mtn. Alternate
3933.0	(LSB) Panhandle Traffic Emergency Net Dy 0000	4640.0	State Emergency Management (Operation Secure)
3935.0	(LSB) Belize	4627.0	CAP, Southwest US Primary
3935.0	(LSB) Central Gulf Coast Hurricane Net	4709.0	USAF HF-GCS, Sigonella
3935.0	(LSB) Health & Welfare Traffic Net (Night)	4724.0	USAF HF-GCS Primary
	ARES Section H&W Frequency for	4780.0	FEMA
	Louisiana, Mississippi, Oklahoma, Texas	4813.5	USCG emergency, Guam (alternate)
	Also Alabama Tactical Use	4821.0	Federal Agencies Net, Region 7 (old FHWA hwy net F-14)
3937.0	(LSB) W. Massachusetts	4900.0	USAF hurricane net on Eastern Test Range
3940.0	(LSB) Florida Voice Traffic Net	4960.0	Louisiana National Guard
3940.0	(LSB) South Florida ARES Net	5000.0	WWV wx h+8, 9, 10; WWVH wx h+48, 49, 50, 51
3940.0	(LSB) Tropical Voice Traffic Net	5008.0	US Department Of Transportation evacuation F-2
3940.0	(LSB) SATERN Alternate	5135.0	SECURE Gulf Coast net ALE/USB
3944.0	(LSB) West Gulf Emergency Net	5136.4	Red Cross F-93
3945.0	(LSB) Katrina Outbound Health & Welfare	5140.0	SECURE Florida net ALE.USB
3947.0	(LSB) Virginia health & welfare (alt 7240)	5141.4	Red Cross F-94
3950.0	(LSB) Northern Florida ARES Net	5142.6	USCG 7th District SAR
3950.0	(LSB) National Hurricane Watch, occasional night	5192.0	State Emergency Management (Operation SECURE)
3955.0	(LSB) South Texas Emergency Net	5195.0	State Emergency Management (Operation SECURE)
3957.0	(LSB) Louisiana State EOC	5203.5	US Army National Guard
3960.0	(LSB) Northeast Coast Hurricane Net	5211.0	National Emergency Coordination Net night primary, also
3965.0	(LSB) Alabama Emergency Net		FEMA "Foxtrot 11," USB/LSB
3965.0	(LSB) Alabama Traffic Net F-"Mike"	5236.0	SHARES Co-ordination Network Ch-1 (night voice
	Alabama Katrina Alt		primary)
3967.0	(LSB) Gulf Coast Outgoing Traffic Net	5302.0	FEMA, probably urban search and rescue
3975.0	(LSB) District 32 RACES Net (Alt in TX)	5320.0	USCG Groups, Miami, FL, and Portsmouth, VA;
3975.0	(LSB) Georgia ARES		CG Auxiliary
3980.0	(LSB) SE Virginia ARES		Galveston CG use in Katrina
3987.5	(LSB) Mexico (Spanish)	5350.0	USAF hurricane net on Eastern Test Range
3993.5	(LSB) Regional Common Frequency	5400.0	USCG, Puerto Rico
	NY State RACES, KY ARES, SC ARES,	5402.0	FEMA
	Gulf Coast Health & Welfare Primary	5422.5	USCG Auxiliary
4003.0	Bahamas Air Sea Rescue, WX broadcasts dy 1100	5432.0	USCG, hvy CAMSLANT use in Dennis '99
4045.0	Caribbean Weather Center, 1030, 1200	5520.0	MWARA CAR net
4055.0	Federal Aviation Administration, RCOM HF net	5550.0	New York ATC
4125.0	Maritime clg and distress freq, some weather info	5680.0	Maritime calling and distress frequency
4125.0	USCG calling/watchkeeping (simplex)	5692.0	USCG air-air, Navy, possibly also FEMA
4146.0	Maritime simplex channel 4A	5696.0	USCG air-ground/safety of flight
4149.0	Maritime simplex channel 4B		Seems to be less active, check COTHEN for traffic
4207.5	International DSC Channel	5710.0	USAF, weather recon heard here
4209.5	(Sitor-B) International NAVTEX, like 518 kHz	5711.0	SHARES Co-ordination Network Ch-4 (ALE)
4210.0	(Sitor-B) International marine safety information	5717.0	CanForce safety of flight/SAR, their version of 5696
4235.0	(Fax) USCG Boston, MA, weather fax, eve/night	5732.0	(ALE/USB) COTHEN (Scan-1)
4271.1	(Fax) CF, Halifax, NS, hourly charts, RTTY rest of hr.	5755.0	Federal Agencies Net, Region 7 (old FHWA hwy net F-23)
	Freq is nominal; your dial/window may vary	5821.0	FEMA "Foxtrot-14"
4298.0	(Fax) USCG NOJ, Kodiak, AK, all scheduled hours	5847.0	US National Guard ALE/USB
4316.0	(USB) USCG NMG, New Orleans, LA, voice weather fcsts	5848.0	US Army Corps of Engineers
	0330, 0515, 0930, 1115, 1530, 1715, 2130, 2315	5901.0	SHARES National Net (Night Alt)
4317.9	(Fax) USCG, New Orleans, LA, all scheduled hours	6106.0	FEMA
4346.0	(Fax) USCG, Pt. Reyes, CA, night weather charts	6215.0	Maritime calling and distress frequency
4372.0	US Navy FACSFAC VACAPES, VA, "Giant Killer"	6215.0	USCG calling/watchkeeping (simplex)
4369.0	WLO traffic & weather	6221.0	Caribbean Weather Center, 1330
4426.0	USCG, SCN net duplex, ships call on 4134	6224.0	Maritime simplex channel Ch. 6A
4426.0	USCG NMN Portsmouth, VA, Atlantic WX 0330 0515 0930	6224.0	Cruiseheimer's Net (winter alt 1), dy 1230

6227.0	Maritime simplex channel Ch. 6B	7247.0	(LSB) SE US Emergency N. Florida ARES, etc
6227.0	Cruiseheimer's Net (winter primary), dy 1230	7248.0	(LSB) Texas RACES, Primary Tactical Freq
6230.0	Maritime simplex channel Ch. 6C	7250.0	(LSB) Salvation Army SATERN Sat 1700
6230.0	Cruiseheimer's Net (winter alt 2), dy 1230	7250.0	(LSB) Belize
6264.3	Kodiak, AK, WX	7250.0	(LSB) Texas
6312.0	International DSC Channel	7254.0	(LSB) N. Florida Emergency Net
6314.0	(Sitor-B) USCG, Boston, MA, Atlantic at 0140	7255.0	(LSB) Old Emergency Calling Freq
6340.5	(Fax) USCG, Boston, MA, all scheduled hours	7255.0	(LSB) East Coast Amateur Radio Svc (ECARS)
6341.7	(Sitor-B) WLO, weather at 0345	7260.0	(LSB) West Gulf Coast Hurricane Net (Alt)
6456.0	(Fax) CF, Victoria, BC, 0245, 1025, 1515, and 2115	7260.0	(LSB) Virginia Emergency Net (Alt)
6496.4	(Fax) CF, Halifax, NS, hourly charts, RTTY rest of hr.	7264.0	(LSB) Gulf Coast Health & Welfare (Alt)
6501.0	USCG, SCN net duplex, ships call on 6200	7265.8	(LSB) Salvation Army SATERN (Alt) Sat 1630
6501.0	USCG, NRV, Guam, Pacific WX 0930 1530	7268.0	(LSB) Waterway Net secondary/ Maritime Mobile Net WX4NHC lists this as a secondary freq
6501.0	USCG, NMO, Honolulu, HI, Pacific WX 0600 1200	7273.0	(LSB) Texas ARES (Alt) use in past
6501.0	USCG, NOJ, Kodiak, AK, Pacific WX 0203 and 1645	7275.0	(LSB) Georgia
6501.0	USCG, NMN, Portsmouth, VA, Atlantic WX 0330, 0515, 0930, 1115, 1530, 2130, and 2315	7280.0	(LSB) Louisiana alternate fq in past
6519.0	WLO, frequent wx broadcasts	7283.0	(LSB) Gulf Coast Outgoing Health & Welfare
6577.0	MWARA CAR net	7285.0	(LSB) Primary Regional Daytime Frequency; West Gulf Emergency Net; Louisiana Emergency Net; Mississippi Emergency Net; Texas Emergency Net; Heavy use in Katrina
6586.0	New York ATC	7290.0	(LSB) Primary Regional Daytime H&W/WX Freq Central Gulf Coast Hurricane Net; Texas ARES (Primary Health & Welfare); Louisiana ARES (Pri H&W) Mississippi ARES (Pri H&W) Gulf Coast Weather Net
6712.0	USAF HF-GCS alt	7294.0	(LSB) Chubasco Net dy 1530
6723.0	US Navy FACSAC Jacksonville, FL "Sea Lord" (also 6742.0)	7299.0	(LSB) South Pacific Sailing Net Dy 1700
6724.0	USAF HF-GCS alt	7305.0	(Fax) JMH, Tokyo, weather charts at 0110 and 1910
6739.0	USAF HF-GCS Primary	7341.0	CAP, National Packet Radio Channel (Digital)
6742.0	US Navy FACSAC Jacksonville, FL "Sea Lord"	7348.0	FEMA
6785.0	US Army Corps Of Engineers	7373.5	US Department Of Transportation evacuation F-3
6800.0	SHARES Coordination Network (PACTOR BBS)	7381.0	SHARES - US Navy MARS
6803.1	(ALE) US Federal NS/EP	7412.0	USAF hurricane net on Eastern Test Range
6809.0	FEMA "Foxtrot-21" channel: urban search and rescue, Caribbean relief	7477.0	State Emergency Management (Operation Secure)
6826.0	Army MARS	7475.0	Federal Aviation Administration, southeast
6859.5	Red Cross F-95	7480.0	State Emergency Management (Operation Secure)
6870.0	FAA Southern Region	7480.1	(ALE) US Federal NS/EP
6985.0	US Army Corps of Engineers ALE/USB	7507.0	USCG and Navy Hurricane Warning Net, Puerto Rico
6999.0	US Army MARS alternate guard fq	7508.5	Federal Aviation Administration, Caribbean hurricane net
7055.0	(LSB) Mexican Hurricane Net (Spanish)	7527.0	(ALE/USB) Customs Over The Horizon Enforcement Net (COTHEN Scan-2)
7060.0	(LSB) Mexican Health & Welfare (Spanish)	7528.6	USCG Auxiliary (likely same freq as 7527)
7070.0	(LSB) Baja California N & S (Spanish)	7540.0	SHARES - US Air Force MARS
7090.0	(LSB) Central America Emergency Net (Spanish)	7550.5	Red Cross F-96 (Primary)
7096.0	(LSB) Bahamas Weather Net	7552.1	SHARES - NTA
7105.0	(LSB) Cuban use in Michelle	7582.0	US Department Of Transportation evacuation F-4
7110.0	(LSB) Cuba	7632.0	SHARES National Coord Net (Night Pri)
7145.0	(LSB) Bermuda	7633.6	USAF MARS phone patch net, night calling freq
7158.0	(LSB) Caribbean Net dy 0000	7635.0	CAP, National Calling & Emergency
7165.0	(LSB) Caribbean Inter-Island Watch Freq	7635.0	SHARES - CAP Command Net
7225.0	(LSB) Central Gulf Coast Hurricane	7650.0	US Army National Net ALE/USB
7228.0	(LSB) Kentucky	7697.0	Red Cross F-97
7230.0	(LSB) SW US Traffic Net	7697.1	(ALE) US Federal NS/EP
7232.0	(LSB) Tar Heel Emergency Net (Alt)	7743.0	Federal Agencies Net, Region 7 (old FHWA hwy net F-28)
7235.0	(LSB) Central Gulf Coast Hurricane Net	7773.5	USCG, Caribbean use
7235.0	(LSB) Regional Emergency Hurricane Frequency Louisiana Emergency Net Central Gulf Coast Hurricane Net West Virginia	7802.0	State Emergency Management (Operation Secure)
7238.0	(LSB) Baja California Maritime Net dy 1500/1600	7805.0	State Emergency Management (Operation Secure)
7240.0	(LSB) American Red Cross Gulf Coast Emergency - PRIMARY	7850.0	Caribbean Police Net per Rick Baker
7240.0	(LSB) Virginia Health & Welfare (Alt)	7920.0	CAP, all regions
7240.0	(LSB) Texas Emergency Net	7932.0	State Emergency Management (Operation Secure)
7241.0	(LSB) Caribbean Maritime Mobile Net, St. Croix, dy 1100 (7230 - 7240)	7935.0	State Emergency Management (Operation Secure)
7242.0	(LSB) S. Florida Emergency Net (Alt)	8047.0	US National Guard ALE/USB
7242.0	(LSB) Florida Mid-day Net	8093.0	US Army National Guard, all regions
7242.0	(LSB) Tropical Traffic Net	8104.0	Caribbean Weather Center hurricane frequency, 0000
7243.0	(LSB) Alabama Emergency Net	8125.0	Federal Aviation Administration, east
7243.0	(LSB) SC Emergency Net	8137.0	Caribbean Weather Center, 1100
7245.0	(LSB) Southern Louisiana Emergency Net		
7245.0	(LSB) NY State RACES		

8146.0	Cruiseheimer's Net (Summer alt 1)	10816.5	USCG National Net ALE/USB
8152.0	Cruiseheimer's Net (Summer pri), US East Coast/ E Car, dy 1230	10891.0	SHARES - Federal Highway Administration
8156.0	Royal Bahamas Defence Force (coast guard & police)	10935.0	USCG, others, in Caribbean disaster ops
8158.0	NW Caribbean Cruiser's Net, dy 1400 Mexico to San Andres Island, Colombia	11028.0	US Department Of Transportation evacuation F-6
8160.0	USCG, Caribbean use	11090.0	(Fax) NOAA/ DoD, Honolulu, HI, days
8164.0	Cruiseheimer's Net (Summer alt 2)	11175.0	USAF, HF-GCS Primary
8184.5	US Army Air Net ALE/USB	11181.0	USAF discrete, also Teal use in past
8260.0	Unauthorized Caribbean marine frequency, various languages	11202.0	US Coast Guard Safety of Flight
8291.0	Maritime calling and distress frequency	11217.0	SHARES Co-ordination Network Ch-6 (ALE)
8291.0	USCG calling/watchkeeping (Simplex)	11220.0	USAF discrete
8294.0	Maritime simplex channel 8A	11226.0	USAF, weather aircraft heard here
8294.0	Alt. frequency for "Herb" Southbound II net	11230.0	British military, relief use in Bahamas
8297.0	Maritime simplex channel 8B	11246.0	US Air Force discrete for 53rd WRS ("Teal")
8414.5	International DSC Channel	11309.0	New York ATC
8416.5	(Sitor-B) USCG, Boston, MA, Atlantic WX at 0140 and 1630	11342.0	New York LDOC, used by TEAL 66 to patch CNN
8416.5	(Sitor-B) USCG, Honolulu, HI, Pac WX at 0130, 1330, 2030	11387.0	MWARA CAR net
8416.5	(Sitor-B) USCG CAMSPAC Pt. Reyes, WX at 0015 and 1800	11396.0	MWARA CAR net
8459.0	(Fax) USCG, Kodiak, AK, all scheduled hours	11451.0	(ALE) US Federal NS/EP
8502.0	(USB) USCG, New Orleans, LA, voice weather fcsts 0330, 0515, 0930, 1115, 1530, 1715, 2130, 2315	11494.0	(ALE/USB) COTHEN Scan-5
8503.9	(Fax) USCG, New Orleans, LA, all scheduled hours	12087.0	National Guard Net ALE/USB
8682.0	(Fax) USCG. Pt. Reyes, all scheduled hours	12178.7	Federal Agencies Net, Region 7 (old FHWA hwy net F-41)
8764.0	USCG, SCN net duplex, ships call on 8240	12216.0	FEMA
8764.0	USCG, Honolulu, HI, Pac WX at 0005, 0600, 1200, 1800	12225.0	(ALE) US Federal NS/EP
8764.0	USCG, Portsmouth, VA, Atlantic WX at 0330, 0515, 0930, 1115, 1530, 1715, 2130, and 2315	12290.0	Maritime calling and distress frequency
8764.0	USCG CAMSPAC Pt. Reyes, Pac WX 0430, 1030, 1630, 2230	12290.0	USCG calling/watchkeeping (Simplex)
8788.0	WLO traffic & weather	12350.0	Caribbean Weather Center, 1300
8846.0	New York Radio, frequent use with TEAL hurricane hunters	12353.0	Maritime simplex channel 12A
8912.0	COTHEN Scan-3 (always busy in hurricane relief) ALE/USB	12356.0	Maritime simplex channel 12B
8918.0	MWARA CAR net	12359.0	Maritime simplex channel 12C
8933.0	New York LDOC, given as sec to TEAL 66 for CNN patch	12359.0	Primary frequency for "Herb" ex-Southbound II, Dy 2000 Famous Herb Hilgenberg weather net for small vessels cruising Atlantic and Caribbean. Takes check-ins starting 1930, may reach into Pacific late in the net, conditions permitting. Off-air 8/14-26/09
8968.0	USAF (no longer HF-GCS)	12362.0	Maritime simplex channel 12D
8983.0	USCG Air-Ground/ Safety of Flight Seems to be less active, check COTHEN for traffic	12365.0	Maritime simplex channel 12E
8992.0	USAF HF-GCS Primary	12412.5	(Fax) USCG, Kodiak, AK, all scheduled hours
9064.0	SHARES National Coord Net (Night Alt)	12577.0	International DSC Channel
9074.5	US Department Of Transportation evacuation F-5	12579.0	(Sitor-B) USCG, Boston, MA, Atlantic WX at 0140 and 1630
9081.5	US Army ALE/USB	12579.0	(Sitor-B) USCG, Honolulu, HI, Pac WX
9106.0	SHARES Coordination Network Ch. 5 (ALE)	12786.0	(Fax) USCG CAMSPAC Pt. Reyes, CA, all sched. hours
9110.0	(Fax) USCG, Boston, MA, all scheduled hours	12750.0	(Fax) USCG, Boston, MA, day
9180.0	Mexican Navy	12753.0	(Fax) CF, Victoria, BC, 0245, 1025, 1515, and 2115
9185.0	Federal Agencies Net, Region 7 (old FHWA hwy net F-31)	12788.0	(USB) USCG, New Orleans, LA, voice weather fcsts 0330, 0515, 0930, 1115, 1530, 1715, 2130, 2315
9197.0	SHARES - Federal Highway Administration	12789.9	(Fax) USCG, New Orleans, LA, all scheduled hours
9122.5	USACE emergency use	13089.0	USCG, SCN net duplex, ships call on 12242
9380.0	USCG and US Navy Hurricane Warning Net, Puerto Rico	13089.0	USCG, Guam, Pacific WX at 0330 and 2130
9496.0	(ALE) US Federal NS/EP	13089.0	USCG, Honolulu, HI, Pacific WX at 0005 and 1800
9970.0	(Fax) JMH, Tokyo, weather charts at 0110 and 1910	13089.0	USCG, Portsmouth, VA, Atlantic WX at 1115, 1530, 1715, 2130, and 2315
9982.5	(Fax) NOAA/ DoD, Honolulu, HI weather charts, night	13089.0	USCG CAMSPAC Pt Reyes, Pac WX at 0430, 1030, 1630, 2230
10000.0	WWW wx h+8, 9, 10; WWVH wx h+48, 49, 50, 51	13110.0	WLO traffic & weather
10155.0	(ALE) US Federal NS/EP	13200.0	USAF, HF-GCS Primary
10194.0	FEMA "Foxtrot-25" ALE/USB/LSB	13204.0	USAF, possible discrete assigned for TEAL pp
10202.0	USAF discrete	13242.0	SHARES Co-ordination Network Ch-10
10242.0	(ALE/USB) COTHEN Scan-4	13245.0	Antigua and Antilles inter-island net
10305.0	USAF hurricane net on Eastern Test Range	13270.0	NOAA a/c per John Winward
10493.0	National Emergency Coordination Net day primary, also FEMA "Foxtrot-26", and SHARES, USB/LSB	13297.0	MWARA CAR net
10506.0	(RTTY) CF, Halifax	13330.0	New York ATC
10536.0	(Fax) CF, Halifax, NS, hourly charts, RTTY rest of hr.	13354.0	MWARA East Pacific net
10586.5	SHARES - new SCN channel Xray Foxtrot	13432.5	US Department Of Transportation evacuation F-7
10588.0	FEMA /USCG/ always busy in hurricanes ALE/USB/LSB	13434.0	Federal Agencies Net, Region 7 (old FHWA hwy net F-42)
10780.0	USAF, Cape Radio, FL, and HF-GCS backup	13446.0	FEMA "Foxtrot-36" various modes
		13457.0	SHARES primary - also Federal Aviation Administration

13510.0	(Fax) CF, Halifax, NS, hourly charts, RTTY rest of hr.	15088.0	USCG Air-Ground safety of flight
13626.0	Federal Aviation Administration, Gulf		Seems to be less active, check COTHEN for traffic
13630.0	Federal Aviation Administration, west	15094.0	SHARES Coordination Network Ch. 7 (ALE)
13907.0	(ALE/USB) COTHEN Scan-6	15867.0	(ALE/USB) COTHEN Scan-7
13910.5	US Army MARS emergency net	16086.5	(Sitor-B) USCG CAMSPAC MSI
13927.0	USAF MARS calling & ph. patch primary, some TEAL use	16135.0	(Fax) US DoD, Honolulu, HI, all scheduled hours
13977.0	USAF MARS phone patch net, administrative (Sun 1600)	16338.5	National Guard Net ALE/USB
13956.0	FEMA "Foxtrot-48", some NECN use (USB/LSB)	16348.0	Federal Aviation Administration
13960.0	USAF discrete	16420.0	Maritime calling and distress frequency
13993.0	SHARES - USAF MARS	16525.0	Caribbean Weather Center, 1320
13996.0	SHARES - US Army MARS primary guard fq	16528.0	Maritime simplex channel 16A
13997.0	(Fax) JMH, Tokyo, weather charts at 0110 and 1910	16531.0	Maritime simplex channel 16B
14118.0	'Le Reseau Du Capitaine' Net. Montreal, Canada. Most operators bilingual FF/EE, covers Atlantic, Pacific, Caribbean for WX and emergency tfc, Dy 1100 & 2230	16531.0	Alt. frequency for "Herb" Southbound II net
		16534.0	Maritime simplex channel 16C
14121.0	Mississauga Maritime Mobile Net, Covers Europe, Med, Atlantic, Caribbean and Central America, dy 1245	16804.5	DSC
14185.0	Caribbean emergency frequency	16806.5	(Sitor-B) USCG, Boston, MA, Atlantic WX at 1630
14215.0	Pacific Inter-island Net (Alt)	16806.5	(Sitor-B) USCG, Kodiak, AK, Pacific WX at 1500
14235.0	Pan-American Health Net	16806.5	(Sitor-B) USCG CAMSPAC Pt Reyes, Pac WX
14260.0	UN Net	17146.4	(Fax) USCG NMG New Orleans, Tropical WX 1715
14265.0	Salvation Army SATERN Net Primary M-F 1400	17151.2	(Fax) USCG CAMSPAC Pt. Reyes, CA, all scheduled hours
14268.0	UN Radio Readiness Group	17314.0	USCG, duplex, ships call on 16432
14270.0	Red Cross Net	17314.0	USCG, Portsmouth, VA, Atlantic WX 1715
14275.0	Now primarily a DX/Contest fq, though still listed Bermuda Net	17314.0	USCG. Pt. Reyes, CA, Pacific WX at 1630 and 2230
14283.0	Friendly Caribus Connection ("FCC;" a Caribbean net)	17362.0	WLO traffic & weather
14283.0	UN Relief Net	17421.0	US Department Of Transportation evacuation F-8
14293.0	Red Cross use	17487.0	SHARES Coordination Network Ch. 8 (ALE)
14300.0	Maritime Mobile Service Net Dy 1600 Atlantic fm. Cape Town to Greenland, E. Pacific, Gulf. Dy 1600-0200 summer, 1700-0200 winter.	17907.0	MWARA CAR net
14300.0	US Coast Guard Amateur Radio Net S 1600/1700	18205.0	CAP, Alaska
14300.0	Maritime Mobile Service Net (daily)	18220.0	(Fax) JMH, Tokyo, weather charts at 0110 and 1910
14300.0	Intercontinental Net	18594.0	(ALE/USB) COTHEN Scan-8
14303.0	ARRL International Assistance & Traffic Net	18617.0	USAF MARS Phone Patch Net
14310.0	Maritime Emergency Net dy 0400	18825.0	Maritime simplex channel 18A
14313.0	Maritime Mobile Service Net Alternate-1	18828.0	Maritime simplex channel 18B
14313.0	US Coast Guard Amateur Radio Net S 1600	18831.0	Maritime simplex channel 18C
14315.0	Pacific Interisland Net Dy 0800	18834.0	Maritime simplex channel 18D
14315.0	Pacific Islands Disaster Net First Sun, 0100	18837.0	Maritime simplex channel 18E
14325.0	Hurricane Watch Net, primary fq, amateur and govt, *****ALWAYS MONITOR THIS ONE*****	18840.0	Maritime simplex channel 18F
14327.0	US Coast Guard Amateur Radio Net S 1700/1800	18843.0	Maritime simplex channel 18G
14340.0	California-Hawaii Net M-F 1700	18889.5	(Sitor-A) FEMA, maritime channel 39
14340.0	Maritime Emergency Net dy 0400 & 1800	19290.0	Unk. Federal
14340.0	Manana (Baja) Net M-Sat 1900	19680.5	(Sitor-B) International marine safety information
14360.0	(ALE) US Federal NS/EP	19757.0	Maritime channel 1802, FEMA hrd. here
14383.5	SHARES - US Navy MARS	20000.0	WWV wx h+8, 9, 10
14389.0	USAF MARS calling & phone patch secondary	20107.0	SHARES Coordination Network Ch. 7
14390.5	MARS disaster operations	20390.0	USAF Cape Radio Secondary, HF-GCS backup
14391.5	US Navy MARS	20873.0	CAP, all regions
14396.5	SHARES National Coord Net (Day Primary),also old National Communications System primary, all 23 agencies	20890.0	(ALE/USB) COTHEN Scan-9
14450.0	FEMA "Foxtrot-41," evac heard here	20992.6	USAF MARS phone patch net, freq ACR
14455.0	SHARES National Coord Net (Day Alt)	21400.0	Transatlantic net (amateur)
14493.5	SHARES - Federal Bureau of Investigation	21402.0	Pacific Maritime Net Dy 2200 (amateur)
14567.0	FEMA "Foxtrot-39," NECN primary in past	22159.0	Maritime simplex channel 22A
14606.0	USAF MARS Phone Patch Net, old freq ACF	22162.0	Maritime simplex channel 22B
14653.0	US National Guard Net ALE/USB	22165.0	Maritime simplex channel 22C
14757.0	US Army Net ALE/USB	22168.0	Maritime simplex channel 22D
14776.0	FEMA	22171.0	Maritime simplex channel 22E
14836.0	FEMA "Foxtrot-43"	22376.0	International Sitor MSI frequency
14898.5	SHARES Voice Alternate	22376.0	(Sitor-B) USCG, Guam, WX 0500, 1500, 1900, 2315
14902.0	SHARES - CAP rescue and relief, all regions	21390.0	Inter-Americas Net
15000.0	WWV wx h+8, 9, 10; WWVH wx h+48, 49, 50, 51	21400.0	Atlantic Maritime Net
15016.0	USAF HF-GCS Primary	22527.0	(Fax) USCG CAMSPAC Pt. Reyes, day
		22804.0	WLO traffic & weather
		23214.0	(ALE/USB) COTHEN Scan-10
		23331.5	(Fax)US DoD Honolulu, HI, days
		25350.0	(ALE/USB) COTHEN Scan-11
		26100.5	International Sitor MSI frequency
		26617.0	CAP, all regions
		26620.0	CAP, all regions
		26812.0	SHARES Coordination Network Ch. 8



The Voice Of Vietnam

“Hanoi Forbids Carrying Livestock, Poultry By Motorbike” And Other News From Indochina

by Eric Bryan

It seems like a far-flung, unlikely station to do so, but the Voice of Vietnam is one of a handful of international shortwave broadcasters that lease time on the Sackville, Canada, shortwave relay site in order to transmit programs to the Americas. The station obviously wants *you* to listen, but do you want to hear *it*. To answer that, let’s take a look at VOV’s programming, plus a little background information for context.

A Brief Geo-History

Vietnam occupies the east coast of the Indochina Peninsula, that huge hunk of land that juts down below China. Its coastline on the east and south is washed by the South China Sea. China borders Vietnam on the north, with Cambodia and Laos

Eric Bryan is a freelance writer whose articles have appeared throughout North America and Britain. He has been a shortwave listener since he was a teenager

Left Photo: Cultivated land in the northern Vietnam highlands. (Via Voice of Vietnam website, <http://english.vovnews.vn/>)

Right Photo: Happy New Year 2009, the year of the buffalo. (Via Voice of Vietnam website, <http://english.vovnews.vn/>)

on the west. The main cities are Hanoi, the capital, in the north; and Ho Chi Minh City (formerly Saigon), Vietnam’s largest city, in the south.

The country has 58 provinces, plus five centrally controlled municipalities, which have a geographic standing equal to that of the provinces. Its land is rugged and mountainous in the north, but with coastal plains; and is gentle and low-lying in the south, where the Mekong River delta fans out in a verdant expanse. Wherever there are plains or tractable land, there is cultivation throughout, from the famous rice paddies to coffee, rubber, bananas, tea, bamboo, coconuts, and papaya.

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Flowering Sua trees blossom in Hanoi during the lunar month of February. (Via Voice of Vietnam website, <http://english.vovnews.vn/>)



Spring arrives in the highland region. (Via Voice of Vietnam website, <http://english.vovnews.vn/>)

The original Vietnamese people made their homeland in the Red River valley, to the north. In the 2nd Century BCE, China took over the area, and the Vietnamese didn't regain their independence until 939 AD. Over the next millennium, they spread down the coast and created one of the most spirited, vigorous cultures in the region.

In the late 19th Century, France colonized Vietnam and split the country into three sections, combining these regions into a union with Laos and Cambodia, with the whole area being called French Indochina. Indochinese Communist

resistance groups arose against French rule after World War II. Vietnamese troops overcame French forces at the Battle of Dien Bien Phu, in 1954. After this, the country was divided into North and South Vietnam, with the Communists in power in the north, and Anti-Communists controlling the south.

Over the next two decades, South Vietnam, with U.S. support, tried to stop an aggressive Northern movement to reunify the country. In 1973, the U.S. pulled out its troops, with South Vietnam collapsing under a northern Communist onslaught in 1975.

FYI From VOV Motorbike Safety Rules

Since December 15, 2007, motorcyclists in Vietnam have been required to wear helmets. Some riders, in a half-hearted nod to the law, wear helmets, but unbuckled. Others wear them perched on top of their hats. And a few brave souls thumb their noses at the law and safety altogether and go helmet-less.

Keeping the helmet law in mind, in the upper left of the VOV English news homepage, you'll see a short news crawl. Some of the most purely ethnic and localized Vietnamese headlines appear here. The capper, which I saw the instant I first visited the VOV website, referred to a story that included not only motorbikes, but also cyclos (bicycles) "and other rudimentary means." It read: "Hanoi forbids carrying livestock, poultry by motorbike."

As unlikely as the first possibility seems, it does much to evoke the chaos that Hanoi traffic must be, and it also gives an indication of the melding of urban and rural life in modern Vietnam.



Voice of Vietnam QSL card showing Ha-Long, view from Hongai. (Courtesy Vlado, from his collection)



Left: VOV verification card (courtesy Joseph Terwilliger); Right: VOV postcard (courtesy Peter Manson).



VOV English news homepage. (<http://english.vovnews.vn/>)

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Any day you don't learn something new is a wasted day!

The current united Vietnam emerged in 1976, ruled from Hanoi by a Communist government. Vietnam has since adopted some elements of a free-market economy, in an effort to stimulate economic growth.

VOV On Shortwave

Voice of Vietnam's current Sackville schedule in English for North America is 0100–0128 and 0230–0258, both on 6175 kHz. It also broadcasts in English to Latin America at 0330–0358, again on 6175 kHz. Its signal has always been a little weak in the Northwest where I live, and it suffered when Radio Havana Cuba used to thunder in on 6180 kHz. But with a half-decent radio and not too much local or atmospheric noise, receiving VOV's Sackville transmissions is usually possible.

According to Daniel Sampson's online Prime Time Shortwave guide (<http://primetimeshortwave.com>), the rest of VOV's English shortwave broadcast schedule is as follows:

- 1000–1030 to Asia on 9840 and 12020 kHz
- 1100–1130 to Asia on 7285 kHz
- 1130–1200 to Asia on 9840 and 12020 kHz
- 1230–1300 to Asia on 9840 and 12020 kHz
- 1330–1400 to Asia on 9840 and 12020 kHz
- 1500–1528 to Asia and Africa on 7285, 9840, and 12020 kHz
- 1600–1628 to Europe, Africa, and Asia on 7220, 7280, 9550, and 9730 kHz
- 1700–1728 to Europe on 5955 kHz (via Austria)
- 1900–1928 to Europe and Asia on 7280 and 9730 kHz
- 2030–2058 to Europe, Africa, and Asia on 7220, 7280, 9550, and 9730 kHz
- 2330–2358 to Asia on 9840 and 12020 kHz

VOV Online

Let me start you out with some advice: The words to keep in mind when navigating VOV's website are "slow" and "incomplete." In fact, lest you get stuck in the virtual molasses, I recommend you only go directly to the pages specified and don't click any other links.

For the VOV news homepage in English, go to <http://english.vovnews.vn/>. Front and center here you'll see a focus on Vietnamese and Asian news headlines. Further down, there are stories classified as "National," "Economics," and "Society," and below those, "World," "Sports," "Overseas Vietnamese," "Culture," "Commentary," and "In Pictures."

On a day when I explored the site, the news under "World" had stories about China and North Korea, and "Overseas Vietnamese" told of a Vietnamese community in Japan, and a Vietnamese man found dead in Germany. "Culture" covered the world's largest jade Buddha statue and a film festival in Vietnam.

In the center of the page there is a list of links under "More news stories." Here, if you let your cursor linger over one of the links, a balloon with a short synopsis/blurb of that particular story appears. An accompanying image sometimes also appears in the balloon with the text. This handy feature works on many links throughout the page. (Of course, to see the full story, left-click the link as usual; but be prepared for slow going to get to the next page, and don't click anything else.)

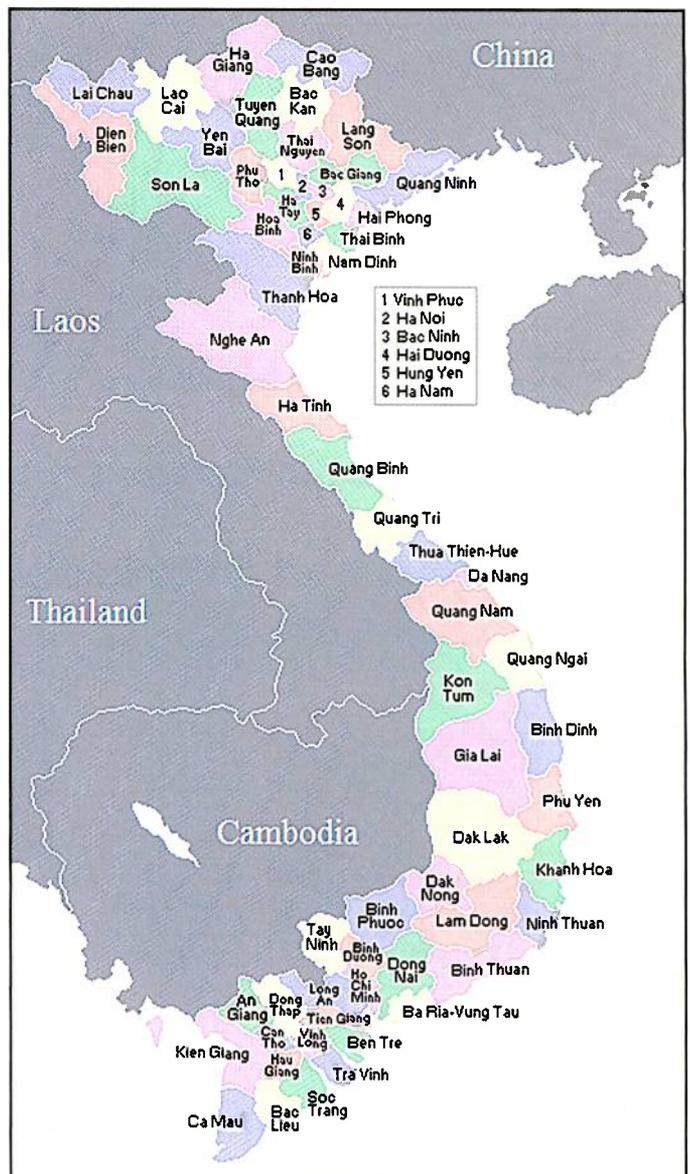
The two-tone menu to the right of the page contains on-demand audio links. Though the links are in English, unfortunately all of the audio I sampled was in Vietnamese.

Below the Vietnamese on-demand links, there's a section called "Photo News." This will appear as one main photo image with a vertical menu of images to carousel through to the right; clicking on an image in the menu brings that photo up in the main viewing section. Many of the photos are chosen to evoke the Vietnamese countryside, nature, changing seasons, or festivals. The images have captions or text explanations in English.

There are more photos to be viewed if you click "In Pictures" in the menu in the upper left, or you can go directly to <http://english.vovnews.vn/Home/In-Pictures.vov>.

VOV Live Streaming

For VOV live streaming, there's a player in the upper right of the homepage. There appear to be four working streams: VOV1, news and current affairs; VOV2, cultural and social affairs; VOV3, music, information, and entertainment; and VOV5, the VOV multi-lingual overseas service channel. (The links for the VOV1 through VOV5 streams along the top of the page appear to be inactive now.)



Following is a sampling of what I found on a recent occasion when listening to the different streams:

VOV1—Interminably long talks by man in Vietnamese.

VOV2—Sign-on at 2200 with national anthem, list of frequencies, and news, all in Vietnamese.

VOV3—Sign-on at 2100, with a program of pop orchestral/vocal music, in Vietnamese. I also heard more traditional Vietnamese music here. A note attached to this stream stated that the station would offer a weekly program of Brazilian music, in cooperation with the Brazilian Embassy. (With international broadcasters, you never know what you're going to get!)

VOV5—Heard at 2030 with the VOV English (shortwave) program. This had news on Russia, the U.S., North Korea, China, Israel, Iraq, Venezuela, Pakistan, the UK, Laos, Cambodia, and Qatar. The rest of the broadcast was a feature on Vietnamese feminist poetry, from antiquity to today. The program ended at about 2057, and at 2100 a broadcast in French commenced.

On the next day, listening again at 2030, the news was followed by in-depth analysis of the Israeli-Palestinian situation and the Palestinian government. Next came a feature on bee-keeping in Vietnam, and how the honey and bee resin business has brought some Vietnamese out of poverty, and even made some wealthy. Following that was an interview with the manager of a Malaysian construction company building a power plant in Vietnam. The program wound up with a piece of Vietnamese rock music, and ended at 2056. At 0100, the English program was back, simulcast (but out of sync) with the Sackville broadcast on 6175 kHz. Presumably, the VOV English program is available for live streaming at all of the times correlating with the shortwave schedule.

The following day I caught the 0100 broadcast. The news covered Kuwait-Vietnam relations, Agent Orange victims versus U.S. chemical companies, Italy-Vietnam relations, and U.S.-Vietnam relations in light of the global economic crisis. Afterward, *Current Affairs* featured employment assistance and training in Vietnam during the global financial crisis. After this was *Letterbox* or *Listener's Letters* (the program was referred to by both names) with two announcers reading letters and email coming in from India, England, Florida, and Japan. A Vietnamese pop song rounded out the broadcast, which ended at 0126.

RSSing VOV

For the VOV RSS feed, click the RSS icon either at the top or bottom of the English homepage. This takes you to a page where you'll see five RSS feed links. Only the top one (labeled in Vietnamese) works; the other four were inactive at time of writing. You can left-click the top one and, on the next page, copy that page's URL into your RSS reader; or you can right-click the RSS feed link, click "Copy Shortcut," and paste the copied URL into your RSS reader. Either way, you'll now have the news headlines in English from VOV in your RSS reader. (Alternatively, you might be using an RSS reading facility that's part of your browser.)

More On Vietnam

For additional information (some of it quirky fun) on Vietnam, check out the government/tourism website at www.vietnamgateway.org:100/english. Here you'll find more news on Vietnam, on Vietnam in relation to other countries, plus many other categories and links.

There's an interesting page via a link in the left-hand menu, "Welcome to Vietnam," where you can escape most of the politics and read news stories under the categories of "Geography," "History," and "Festival."

At the time of writing, "Geography" featured a story about two ancient engraved, bronze drums discovered in Quang Nam province. Under "History" was a story about the revival of an earth and rice gods ritual, which was practiced under the early Le Dynasty (908-1009 BC). "Festival" featured a story about an international kite festival, christened "The Dance of the East Sea," held in March in Ba Ria-Vung Tau province. At least 15 countries, including the U.S., Canada, New Zealand, India, and Australia were to participate, with a total of about 300 kites of a dazzling variety. Indonesia, renowned for its kite-making, was to enter eight kite flyers with their 275-meter-, or 902-foot-long, monster kite.

Topics under "History" included "Hue's royal tombs showcase culture and history" (Hue, in central Vietnam, was the country's ancient capital); "Two ancient graves excavated" (Phu Tho province); and the especially intriguing "Giant horns found in Thanh Hoa province." It's believed that this pair of horns, weighing 66 pounds with a distance between the tips of six feet, came from a prehistoric wild buffalo estimated to be five feet tall (at the shoulder, presumably) and over 8 feet long. The horns, in their complete form on the creature's head, were estimated to have weighed as much as 110 pounds.



Bronze drum from Song Da, Vietnam, Dong Son II Culture, mid-1st Millenium BCE, at the Musee Guimet. (Posted to Wikipedia by PHGCOM)

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***AR-IQ software can be used with any dual core class PC operating Windows® XP or Vista with 2.GHz CPU and 1GB RAM.

OK) 7240 at 1410, 9660 at 0605, 9710 at 0825 on the health system there. 11945 on Fiji media at 1025, 12080 at 0405 and 15560 at 2155. (Maxant, WV) (*sites, please!—gld*) 9580 at 0840. (Padazopulos, NJ) 9590-Shepparton at 1315. (Fraser, ME) 11650-Shepparton with talk show at 2121. (Parker, PA) 11840-Darwin at 2248. (Brossell, WI) 11945-Shepparton at 0950. (Patterson, Philippines) 12080-Brandon at 0449. (Strawman, IA) 2312. (MacKenzie, CA) 15340 with news heard at 0100. (Barton, AZ) 13630 at 0721, 15160 at 0500, 15240, //15415 and 15515 with rugby at 0433 and 15560 at 2350, off at 0000. (Yohnicki, ON)

ABC Northern Territories service, 2310, Tennant Creek, at 0855 in noise, ID at TOH. Also 2485, Katherine, at 1200, just above the noise floor. (Barton, AZ) 4835, Alice Springs, at 0833, //4910, Tennant Creek. (Wilkner, FL)

Christian Vision (CVC), 6110-Darwin in II at 1138. (Ronda, OK)

HCJB Australia, 15400-Kununurra at 0244. (Patterson, Philippines)

AUSTRIA—Radio Austria Instl, 6155-

Moosbrunn, with talks in GG at 2015. (Ng, Malaysia) 13775 via Canada with GG vocals at 0630. (Maxant, WV) 17715 in GG at 1225. (Patterson, Philippines)

Adventist World Radio, 6090 via Moosbrunn heard at 0405 with religious pgm in listed Farsi. ID at 0426 close. (D'Angelo, PA)

BELARUS—Radio Belarus, 7210 in Byelorussian at 2200 with an apparent news-cast. (Maxant, WV)

BELGIUM—RTBF Intl, 9970-Warve with M/W in FF at 1928. (Parker, PA)

BOLIVIA—Radio Tacana. Tumupasa, 4781.8 at 2348, currently not noted between 0900-1100. (Wilkner, FL)

Radio Fides, La Paz, 6155.2 at 0100-0200* with SS talk, ballads. Closing ID anmts over light music at 0158. (Wilkner, FL) 0158-0218* two fast-talking men with futbol match. Game ended at 0215 f/by closing anmts. (D'Angelo, PA)

Help Wanted

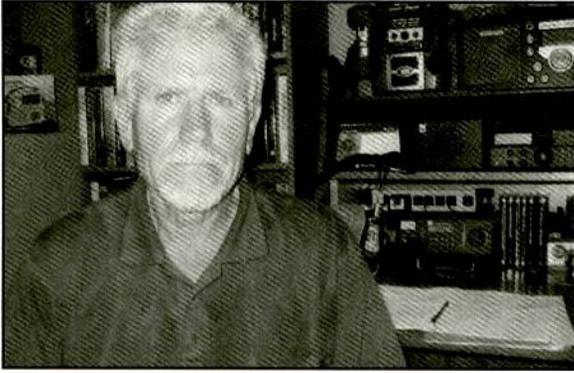
We believe the "Global Information Guide" offers more logs than any other monthly SW publication (*614 shortwave broadcast station logs were processed this month!). Why not join the fun and add your name to the list of "GIG" reporters? Send your logs to "Global Information Guide," 213 Forest St., Lake Geneva, WI 53147. Or you can email them to gdex@wi.rr.com. Please note that attachment files do not always go through. See the column text for formatting tips.

**Not all logs get used. There are usually a few which are obviously inaccurate, unclear, or lack a time or frequency. Also discounted are unidentifieds, duplicate items (same broadcaster, same frequency, same site), and questionable logs.*

A Guide To "GIG-Speak"

Here's a partial list of abbreviations used in the "Global Information Guide":

(l)	listed	KK	Korean
(p)	presumed	Lang	language
(t)	tentative	LSB	lower sideband
*	sign on/off time	LV	La Voz; La Voix
//	parallel frequency	M	man
AA	Arabic	NBC	National Broadcasting Corporation (Papua New Guinea)
ABC	Australian Broadcasting Commission	nf	new frequency
AFN	Armed Forces Network	ORTB	Office de Radiodiffusion et Television du Benin
AFRTS	Armed Forces Radio TV Service	PBS	People's Broadcasting Station
AIR	All India Radio	PP	Portuguese
am	amplitude modulation	PSA	public service announcement
ancr	announcer	QQ	Quechua
anmt(s)	announcement(s)	RAE	Radiodifusion Argentina al Exterior
AWR	Adventist World Radio	RCI	Radio Canada International
BBCWS	BBC World Service	Rdf	Radiodifusora, Radiodiffusion
BSKSA	Broadcasting Service of the Kingdom of Saudi Arabia	REE	Radio Exterior de Espana
CBC	Canadian Broadcasting Corp.	RFA	Radio Free Asia
CC	Chinese	RFE/RL	Radio Free Europe/Radio Liberty
CNR	China National Radio	RFI	Radio France International
co-chan	co-channel (same) frequency	RHC	Radio Havana Cuba
comml	commercial	RNZI	Radio New Zealand International
CPBS	China People's Broadcasting Station	RR	Russian
CRI	China Radio International	RRI	Radio Republik Indonesia; Radio Romania International
DD	Dutch	RTBF	RTV Belge de la Communaute Francaise
DJ	disc jockey	s/off	sign off
DW	Deutsche Welle/Voice of Germany	s/on	sign on
EE	English	SIBS	Solomon Is. Broadcasting Corp.
f/by	followed by	sked	schedule(d)
FEBA	Far East Broadcasting Association	SLBC	Sri Lanka Broadcasting Corp.
FEBC	Far East Broadcasting Company	SS	Spanish
FF	French	TC	time check
GBC	Ghana Broadcasting Corp.	TOH	top of the hour
GG	German	TT	Turkish; Thai
HH	Hebrew; Hungarian	TWR	Trans World Radio
HOA	Horn of Africa	unid	unidentified
ID	identification	USB	upper sideband
II	Italian; Indonesian	UTC	Coordinated Universal Time (= GMT)
Intl	International	UTE, Ute	utility station
IRIB	Islamic Republic of Iran Broadcasting	v	variable
IRRS	Italian Radio Relay Service	vern	vernacular (local language)
IS	interval signal	VOA	Voice of America
JJ	Japanese	VOIRI	Voice of Islamic Republic of Iran
KBS	Korean Broadcasting System	VOR	Voice of Russia
		W	woman
		ZBC	Zambian Broadcasting Corp.



Here's Doug Brown of London, Ontario. His main receiver is a recently acquired Palstar R30A.

Radio San Jose, SJ de Chiquitos, 5580.2 noted for the first time at 1030. Usually only 2330-0100. (Wilkner FL)

BOINAIRE—Radio Nederland Relay, 5975 in DD at 0423. Abruptly off at 0427. (Parker, PA) 0411. Also 6165 in SS at 0340. (MacKenzie, CA)

BOTSWANA—VOA Relay, 4930 with M and news at 0502. (Parker, PA) 12080 in FF at 1750 with comments on events. (MacKenzie, CA)

BRAZIL—(All in PP—*gld*) Radio Imaculada Conceicao, Campo Grande, 4754.9 at 2329. (Parker, PA)

Radio Difusora do Amazonas, Manaus, 4805 at 0955 to 1000 ID, M/W and music bridge. (Wilkner, FL)

Radio Cultura Tropicais, Manaus, 4845 at 0015 with sports commentary and PP comls. (Ronda, OK) 2356 with futbol coverage. ID over commentary at 0000. (D'Angelo, PA)

Radio Alvorada, Londrina, 4865 with upbeat songs and short anmt at 0134. (Ronda, OK)

Radio Anhanguera, Araguania, (p) 4905 with sports commentary at 0154. (Ronda, OK)

Radio Difusora, Macapa, 4915 with M talk and reverb at 0054. (Parker, PA)

Radio Educacao Rural, Tefe, 4925.2 with highlife music at 0050. (Parker, PA)

Radio Brazil Central, Goiania, 4985 at 0111 with M and long talk, reverb. (Parker, PA) 0420 with M and rap, pops at TOH. (Wood, TN) 0930 with slow ballads. (Wilkner, FL)

Radio Aparecida, Aparecida, 5035 heard at 0305 with talk and ballads. (Alexander, PA) 0525 with W and slow talk. (Parker, PA)

Radio Senado, Brasilia, 5990 at *0919 with local guitar at 0928, open carrier from 0923-27, instl at 0927, opening anmt at 0938, rooster crows at 0930 and talk. (Alexander, PA)

Radio Inconfidencia, Belo Horizonte, 6010 at 0845 with local music, anmts, and commls. (Alexander, PA)

Radio Bandeirantes, Sao Paulo, 6090 at 0250 with Anguilla off the air, M/W talk, ID at 0300 and into pops. (D'Angelo, PA) 0300, but heard as early as 2215 with all talk. (Alexander, PA)

Radio Nacional, Brasilia, 6185 at 0157 with sports event coverage. (Parker, PA) 11780 at 1755 with two W in talk, ID at 1759. (MacKenzie, CA)

BULGARIA—Radio Bulgaria, 5900-Plovdiv at 0516 in Turkish. (Parker, PA) 2130. (Patterson, Philippines) 13600 in SS at 1206. (Brossell, WI)

CANADA—Radio Canada Intl, 7230 via Vatican in AA at 0346. (Brossell, WI) 9515 in Mandarin to 2159 close. (Badman, NY)

CBC Northern Quebec Service, 9625 in FF and EE at 1108. (Maxant, WV) 2321 with EE comments by two M. (MacKenzie, CA)

CKZN, St. John's, (Newfoundland) 6160 at 0107 with pop songs and interview. (Ronda, OK) 0138 with a talk show, CBC news at 0200. (D'Angelo, PA) 0650 on religious orders there. (Maxant, WV) 2155 with station promos and IDs, news at 2200. (Alexander, PA)

CFRX, Toronto, 6070 at 0330 on immigrants from South Africa.

(Maxant, WV) 0338 with ID, comls, lots of studio chatter. (Ronda, OK)

CHU, Ottawa, 3330 monitored at 2109. (Badman, NY)

CHAD—RN Tchadienne, (p) 7120 heard at 1925 with Afro-pops, FF talk, tribal drums. Abruptly off at 2002. (Alexander, PA)

CHILE—CVC-La Voz, 17680 in SS at 1626. (Brossell, WI) 1950. (Yohnicki, ON) 2115. (MacKenzie, CA)

CHINA—China Radio Intl, 5990 via Cuba at 2348, 6020 via Canada with news at 0414, 9690 via Spain at 0338, 11820 in CC at 0005, 11840 via Canada at 2340 and 11930 via Canada in CC at 0008. (MacKenzie, CA) 5960 via Albania at 2050. (Patterson, Philippines) 6020 at 0120. (Badman, NY) 9450-Kashi in Hausa at 1821-1828 close. (Parker, PA) 9570 via Canada at 1314 and 13740 via Cuba at 1425. (Fraser, ME) 11620-Xi'an at 0950 and 15160 in CC at 0112. (Barton, AZ) 11660-Shijiazhuang in CC at 1808. (Strawman, IA) 13620-Xi'an in (l) KK at 1207, 13680-Kashi in CC at 1524 and 13790-Urumqi at 1246. (Brossell, WI)

CPBS/China National Radio, Yunnan PBS, 6035 in with pops in CC at 1220, CNR, 6125-Shijiazhuang with CC weather at 1145. (Ng, Malaysia) Voice of the Strait, Fuzhou, 7280 in Mandarin at 1158 and CNR-2, 11740-Lingshi at 1454 in EE to closing at 1459. (Ronda, OK) CNR-1, Lingshi, 11630 in CC at 2116. (Parker, PA)

COLOMBIA—Marfil Estereo, Puerto Lleras, 5910 heard at 0130 in SS with SS ballads. (Linonis, PA) 0213 with SS ballads. (Strawman, IA) 0548. (Yohnicki, ON)

CROATIA—Voice of Croatia, 3985-Deanovec in Croatian at 0317 and 7375 via Wertachtal at 0450 (Parker, PA) 11675 via Singapore with talks in Croatian at 1125. (Ng, Malaysia)

CUBA—Radio Havana Cuba, 6010 at 0546 with amateur radio news. (Yohnicki, ON) 9600 in SS at 0050. (Patterson, Philippines) 11690 at 2315 with salsa and Latin pops. (Barton, AZ) 12010 in SS at 1519. This is Sundays only. (Brossell, WI) 13790 in SS at 2158. (MacKenzie, CA)

Radio Rebelde, 5025 with SS vocals of American songs monitored at 0435. (Maxant, WV)

CZECH REPUBLIC—Radio Prague, 6200 with medical news at 0115. (Linonis, PA) 7345 on Slovakia and 9410 on the European Union. (Maxant, WV) 9870 at 0308 on a car rally. (Brossell, WI) 13580 at 1320 with *Czechs in History*. (Fraser, ME)

DIEGO GARCIA—AFN/AFRTS, 4319u at 2210. (Patterson, Philippines)

ECUADOR—HCJB, 3220 at 0955 with Andean flutes, time pips, M/W in Lang. (Wilkner, FL) 1120 in Quechua. (Ronda, OK) 9745 in SS heard at 0247. (Parker, PA)

La Voz del Napo, Tena, 3280, heard poor at 1110 with child speaking in SS. (Ronda, OK)

HD2IOA, Guayaquil, 3810 heard at 0900 with beeps and SS time signals. (Barton, AZ)

EGYPT—Radio Cairo, 6290-Abis in AA at 0212. (Parker, PA) 7270 in AA at 0320. (Brossell, WI) 7540 with Koran at 0210. (Yohnicki, ON) 0226 with EE features, Egyptian music and several IDs. News headlines at 0300. (D'Angelo, PA) 0302 with AA music. (Parker, PA) 17870-Za'bal in EE at 1255. (Patterson, Philippines)

ENGLAND—BBC, 3255 South Africa Relay at 0349 with features, pgm previews, time signal and news. (D'Angelo, PA) 0420 just above the noise. Also 11810 Oman Relay at 0253 in Farsi. (Ronda, OK) 7310 with EE news at 0407, 7395 Cyprus Relay at 0133, 9410 Cyprus at 0217. (Parker, PA) 0436. (MacKenzie, CA) To Africa at 0540. (Yohnicki, ON) 9410 Cyprus Relay at 0300 with news. 9605 Singapore Relay in CC at 1523 and 11680-Skelton in AA at 1839. (Brossell, WI) 9740 Singapore Relay at 1155. (Strawman, IA) 9915-Rampisham at 2130 with ID, news. (Fraser, ME) 2140 here and on 12095. (Padazopulos, NJ) 11750 Singapore Relay at 0100 with *World Briefing*. (Ng, Malaysia) 11810 at 1820 on the Taliban in Pakistan. (Maxant, WV) 17640 at 1546. (MacKenzie, CA)

Bible Voice Network, 13590 via Germany heard at 1345 with W reading Bible verses. (Linonis, PA) 11805-Wertachtal at 1446 with religious pgm in EE. (Ronda, OK)

EQUATORIAL GUINEA—Radio Nacional, Bata, 5005 at *0458

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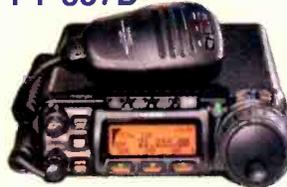
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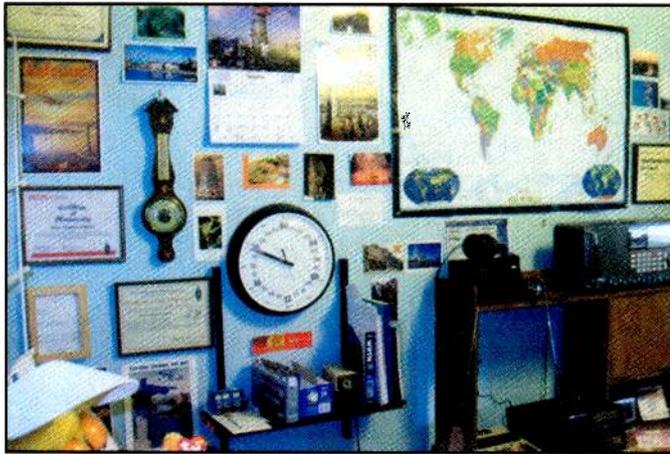
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We're feasting on shack photos this month! This one belongs to Brian Rogers, in Alan Park, Michigan. That looks like a Grundig Satellite model below the world map.

with Afro-pop, SS anmts. (Alexander, PA) 0506 in vernacular with M ancr, tribal music. (Parker, PA)

Radio Nacional, Malabo, 6250 at *0537 with SS talk, variety of Euro-pop and light U.S. pops. (Alexander, PA)

Radio Africa, 15190 with preaching at 2150. (Maxant, WV)

ETHIOPIA—Radio Ethiopia, 7110-Gedja, at 0404 with Amharic ID heard at 0406, W with talk, pop and HOA music. (Wood, TN)

Amhara State Radio, 6090 at *0257 with IS, talk, HOA music, some rustic vocals. Anquilla was off this date. (Alexander, PA) 0316 in Amharic under University Network but generally quite poor. (D'Angelo, PA) 0332 with talk between M/W. (Ronda, OK)

Radio Fana, 6110 at 0358 with HOA vocals, ID at 0400. (Ronda, OK) 0321 with non-stop HOA music to 0328, ID and news at 0400. (D'Angelo, PA) 6890 at 2005-2101* close with HOA music, tribal chants, short ID anmt and off. (Alexander, PA)

Voice of Peace and Democracy, 7165 at *0358 with HOA music, opening ID anmts at 0400 and talk in (I) Tigrinya, listed //9560 unheard. (Alexander, PA) *0355 with O/C, instl music kicked in at 0356, periodic IDs by M and open at 0400. (D'Angelo, PA)

Radio Oromiya Liberation, 13830 via Germany at *1730-1800* on with HOA music, opening anmts, vernacular talk. Fridays only. (Alexander, PA)

Voice of Tigray Revolution, 5950 in Tigrinya at 0440. (Parker, PA)

FRANCE—Radio France Intl, 5925-Issoudun in FF at 0506. (Parker, PA) 17620 in FF at 2125. (MacKenzie, CA) 17800-Issoudun in EE at 1210. (Patterson, Philippines)

This Month's Winner

To show our appreciation for your loggings and support of this column, each month we select one "GIG" contributor to receive a free book. Readers are also invited to send in loggings, photos, copies of QSL cards, and monitoring room photos to me at *Popular Communications*, "Global Information Guide," 25 Newbridge Rd., Hicksville, NY 11801, or by email to gdex@wi.rr.com. The email's subject line should indicate that it's for the "GIG" column. So, come on, send your contribution in today!

This month's prizewinner is **Jerry Strawman, Des Moines, Iowa**, who is now the owner of a 2010 edition of the venerable *World Radio TV Handbook*. This volume is nearly as essential to listening enjoyment as your receiver! Times, frequencies, languages, addresses, transmitter sites, personnel—almost everything but what the engineer prefers for breakfast! You need to own a copy this year—for that matter, every year! Almost all the radio supply stores stock it, as do better bookstores and all the online book sellers. Be sure and keep a copy near your receiver!

FRENCH GUIANA—Radio France Intl Relay, 17640 in FF at 2118. Off suddenly at 2130. (MacKenzie, CA)

GABON—Africa Number One, 9580 at 0507 with presumed news in FF. (Strawman, IA) 1830 in FF with women talk, music. (Maxant, WV)

GERMANY—Deutsche Welle, 5915 via Rampisham in RR at 0511. (Parker, PA) 6180 at 0410 on the Muslim religion, 7245 on identity cards at 0410 and 15205 at 2150 with EE/GG lesson. (Maxant, WV) (*sites, please—gld*) 7245 Rwanda Relay in EE at 0403 and 9700 Rwanda in EE at 0504. (Strawman, IA) 11795-Rampisham at 1913 with *Newslink*. (D'Angelo, PA) 11965 Rwanda in (p) Hausa at 1843 and 15445 Rwanda in AA at 2030. (Brossell, WI) 11975 Sri Lanka relay in EE at 0325 but considerable flutter. (Ronda, OK) 12050 Rwanda in GG at 0015, 15205 Rwanda in EE at 2144, 15620 via England in FF at 1612 and 17860 Rwanda in AA at 1725. (MacKenzie, CA) 17845 via Singapore in GG at 1235. (Ng, Malaysia)

GREECE—Voice of Greece, 7475 in Greek at 0415. (Maxant, WV) 9420 in Greek at 0214. (Brossell, WI) 1813 in GG. (Parker, PA) 0445, also 15630 in Greek at 1603. (MacKenzie, CA)

HAWAII—Armed Forces Network, Pearl Harbor, 10320u heard at 0136 with pops, AP Radio news at 0156 f/by sports. (D'Angelo, PA) WVVH, 10000 at 0329 with ID by W. (MacKenzie, CA)

HONDURAS—Radio Misiones Intl/HRMI, Comayagueta, 3340 heard at 1105 with upbeat songs and instls. (Ronda, OK)

HUNGARY—Radio Budapest, 3975-Jaszberney, in HH heard at 2140. (Patterson, Philippines)

INDIA—All India Radio, 5010-Thiruvanthapuram at 0044 with deep-voiced ancr and beautiful traditional songs. (Parker, PA) 9445-Bangaluru with M ancr, traditional music at 1816. (Parker, PA) 11585-Delhi in HH at 1552. (Brossell, WI) 11620-Bangaluru with EE news by W at 2103 and 11715-Delhi in Nepali a 0129. Also 11985-Bangaluru in Kannada at 0243, off at 0300 per schedule. (Ronda, OK) 11620 at 2145 with an interview. (Maxant, WV) 13795-Aligarh in Tamil at 0005 and 17850-Delhi at 1220 with press comments by W. (Ng, Malaysia) 15075-Bangaluru in Kannada at 0215. (Patterson, Philippines)

INDONESIA—Radio Republik Indonesia, Makassar (Sulawesi), 4750 at 1140 with two M in II, anthem-like song at 1158-59 and talk by W. (Ronda, OK) 1155 with Koran. (Ng, Malaysia) 2215 in II. (Patterson, Philippines)

RRI, Pontianak (Kalimantan), 3976 in II at 1340. (Patterson, Philippines)

RRI, Ternate, (Maluku), 3345 in II at 1330. (Patterson Philippines)

RRI, Kendari, (Sulawesi), 3995 in II at 2205. (Patterson, Philippines)

RRI, Wamena (Irian Jaya), 4870 in II at 2120. (Patterson, Philippines)

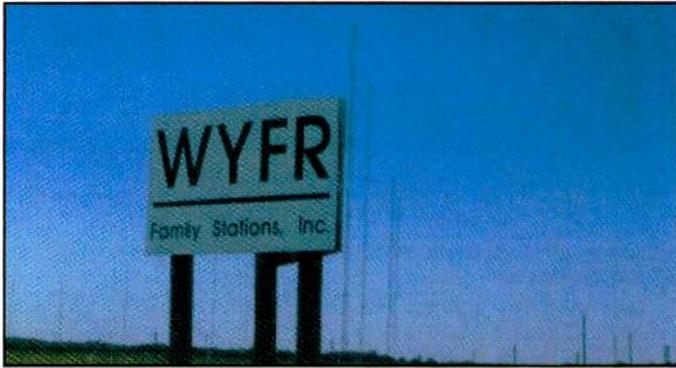
Voice of Indonesia, 9525 at 1153 with soft island vocals and talks in II. (Brossell, WI) 1241 with pop ballads heard at 1241. (Strawman, IA)

IRAN—Islamic Republic of Iran Broadcasting, 7235 at 0206 with "Voice of Justice" service. (Brossell, WI) 9905-Kalamabad a 0048 in SS at 0048, then into AA vocals. (Ronda, OK) 17670 with a letters pgm in CC at 1225. (Ng, Malaysia)

ISRAEL—Galei Zahal, 6973 at 0030 with U.S. pops. (Linonis, PA) 0050 with 60s pops, IS and (p) news at 0100. (Strawman, IA) 0112 with pop oldies, ID by W at 0132. (D'Angelo, PA) 0220 with 2 W chat, into slow song, ID and jingle. (Parker, PA) 15785 at 1846 with U.S. jazz, HH voice-overs, ID at 1900 and into (p) news. (Ronda, OK) 15778 slightly off nominal 15785 with local pops, talk at 1955. Mostly corrected the next day. (Alexander, PA)

ITALY—IRRS, 5990 via Slovakia with EE inspirational pgm at 0515. Off at 0530 with ID and Milano address. Scheduled 0430-0530 Monday through Thursday. (Alexander, PA)

JAPAN—NHK World Radio Japan, 5775 in EE at 0006. Not shown on my lists. Also 5960 via Sackville at 0433. (Parker, PA) 5960 via Canada in JJ at 0407, 9835 in JJ at 1843, 11665 with pops in JJ at 2355, off at 2359, 13640 in JJ at 2250, 17735 in JJ at 1540. (MacKenzie, CA) 5975 at 0515. (Yohnicki, ON) 6085-Yamata in JJ at 2125. (Patterson, Philippines) 6120 via Canada at 1220. (Maxant, WV) 9790 via



How many antenna towers are in this photo of WYFR's Okeechobee site? (Thanks Rich D'Angelo)

Germany with news at 1206. (Strawman, IA) 9695 at 1219 and 11935 via Bonaire at 0218 in JJ. (Brossell, WI) 11705 via Canada at 1422 with pgm *Focus*. (Fraser, ME)

Radio Nikkei, 3925 at 1051 in JJ. News and time pips at 1100, //6055 (poor) and 9595 (fair) (D'Angelo, PA) 1150 with classical music pgm. (Strawman, IA) 9595 heard at 1210 with soft piano classics and talks in JJ. (Brossell, WI)

JORDAN—Radio Jordan, 9830 (p) with AA vocals and comments at 1833. (Strawman, IA) 11810 in AA at 1843. (Brossell, WI)

KUWAIT—Radio Kuwait, 11675 in AA at 0325. (Brossell, WI) 11990 in EE at 1821 with old US pops. (Strawman, IA) 1900-1914 with U.S. pops. (Linonis, PA)

MADAGASCAR—RTV Malagasy, 5010 at 0242 with ballads and talks in (p) Malagasy. (Brossell, WI) 0325 in (l) Malagasy with Afro-pops and short instl breaks. (Alexander, PA)

MALAYSIA—RT Malaysia, (Sarawak) 5030-Kuching with job vacancy anmt at 2335. (Ng, Malaysia) 2230 in (l) Malay. (Patterson, Philippines)

MALI—RTV Malienne, Bamako, 9635 at 0750 with vernacular talk, flute IS and FF ID anmts at 0759, guitar IS at 0800 and into variety of Afro-pops, local string music and rustic vocals, "Radio Mali" ID. (Alexander, PA)

MEXICO—Radio Transcontinental/ XERTA, Mexico City, (p) 4800 at 0450 with man in SS, possible ID at 0500, music and more talk. (Alexander, PA)

Radio Mil, Mexico City, 6010 at 0953 with SS talks, ballads, comls, promos, ID at 0957. (Alexander, PA)

Candela FM/XEQM, Merida, 6104.8 at 0540 with SS talk and local ballads. (Alexander, PA)

Radio Educacion, Mexico City, 6185 at 0645 with SS vocals. (Maxant, WV)

MOROCCO—RT Marocaine, 15345 with AA vocals at 1815. (Maxant, WV)



You can just make out part of the Radio Nederland building in this QSL sent to Rich D'Angelo.

NETHERLANDS—Radio Nederland, 11610 via WYFR at 2007. (Fraser, ME) 15540 opening with DD ID at 2200. (Badman, NY)

The Mighty KBC, 6055 via Lithuania with American pop vocals at 2155. (Maxant, WV) 6110 via Lithuania at 0220 with Beach Boys. (Strawman, IA) 0221 with Beach Boys and other pops and anmts. (Ronda, OK)

NEW ZEALAND—Radio New Zealand Intl, 6170 with commentary at 0845. (Padazopulos, NJ) 1030 on NZ immigration and into sports, 7285 with BBC News at 1555, 9655 with domestic news at 1105 and 11725 at 0505 with domestic news. (Maxant, WV) 6170 at 0728 with *Dateline Pacific*, 11725 with sports at 0505, 15720 at 0430. (Yohnicki, ON) 13720 at 0255. (Patterson, Philippines) 2305 with news. (MacKenzie, CA)

NIGER—La Voix du Sahel, Niamey, 9705 at 1955 in FF to central Africa. (Parker, PA) 2100 to 2301* with Koran, FF and vernacular talk, tribal chants, flute IS and choral anthem at 2259. They had been off the air for a week or so. (Alexander, PA)

NIGERIA—Radio Nigeria, Kaduna, 6089.9 at 2215 to 2355+ (with Anguilla off the air) in (l) Hausa, Koran. Also *0259 sign on with Radio Nigeria drum IS, choral anthem, possible Koran and talk in (l) Hausa. (Alexander, PA)

Voice of Nigeria, Abuja, 9690 at 0815 on Nigeria's power grid. (Maxant, WV)

NORTH KOREA—Voice of Korea, Pyongyang, 3560 in EE at 2105. (Patterson, Philippines) 9335 at 1521 on their communist party. (Brossell, WI) 9665 at 1003 with marches, chorus. (No name) 11710 at 1306 with "news." (Parker, PA) 1310 on the quest for reunification. (Fraser, ME) 1330 with traditional music, talk of South Korea's "imperialism." (Linonis, PA)

Korean Central Broadcasting Station, 11679.7-Kanggye in (p) KK at 2129. (Parker, PA)

January 2010 Reader Survey Questions

This month we check on the health of our economy as measured by the jolity (at least the electronic aspect) of your Holiday. Please use the Reader Survey Card and circle all appropriate numbers. We'll pick one respondent at random for a free one-year subscription, or extension, to *Pop'Comm*, so don't forget your address. Thanks for participating.

Did you purchase any hobby-related items as gifts during the past Holiday Season?

Yes 1
No 2

Did you receive any hobby-related items as gifts?

Yes 3
No 4

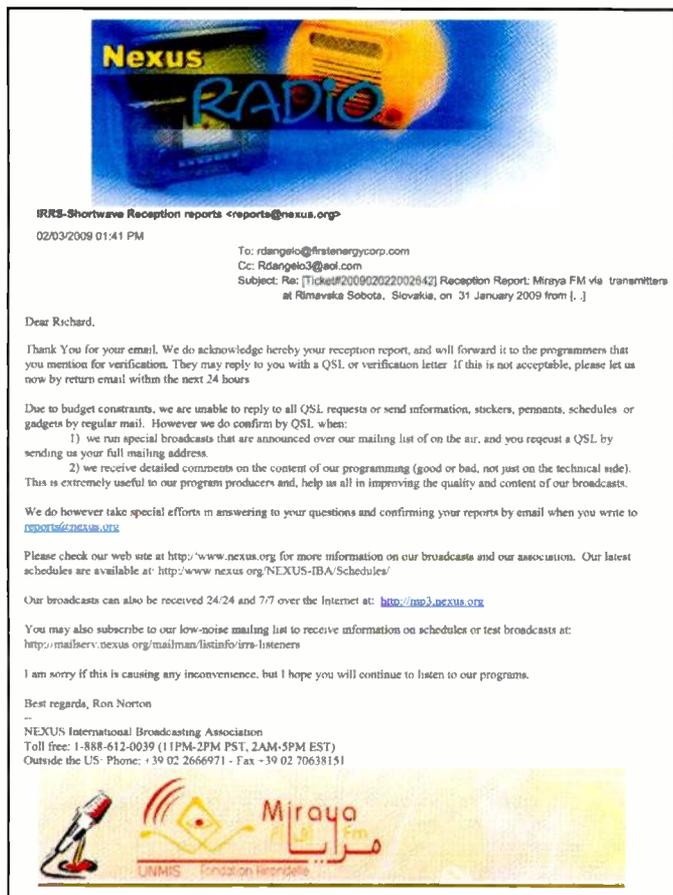
If you did purchase hobby items, what was the main consideration in your choice?

Price 5
Useful features 6
Quality 7
Necessity, had to have 8

September Survey Highlights

Our September survey asked readers where they use their equipment and how they power it. The highest percentage (37) sticks close to home, 26 percent listen in a motor vehicle, 20 percent always have a radio within reach, but a mere 2 percent use radio on boats or planes (we're mainly terrestrial it seems). For power, 44 percent rely on batteries, outpacing AC by 10 percentage points. And in good news for the environment, 14 percent report using alternate energy sources like wind or solar power or hand cranked dynamos. What happens when the lights go out? Well, 45 percent say they'd be OK for a while, but 18 percent say they'd be dead in the water (gotta work on that). Most of our readers are hobbyists so a brief loss of radio comms would be an inconvenience (69 percent), but for the 22 percent who are volunteer responders and the 9 percent use radio as part of their jobs, it's a whole different matter.

The winner of the free subscription or extension for answering that survey is **William T. Rust of Penn Run, Pennsylvania**. Winners for July and August (we didn't have a Reader Survey the past two issues) are **John T. Arthur of Belfast, New York**, and **Michael Reid, of Navasota, Texas**. Congratulations all!



NEXUS Radio confirmed Rich D'Angelo's reception of the Sudanese-based Miraya FM, transmitted via Slovakia.

NORTHERN MARIANAS—Far East Broadcasting/KFBS, Marpi, Saipan, 11580 in Mandarin at 0930. (Patterson, Philippines) 1217 with talks in CC. (Brossell, WI)

OPPOSITION—Radio Nacional de la RASD (to Morocco), 6297.2 heard at 2346 with non-stop pops, M with ID and closedown at 0000 f/by anthem. (Alexander, PA)

Democratic Voice of Burma, 9490 via Germany in BB at 2350. (Ng, Malaysia)

Voice of the People (to Zimbabwe), 9895 via Madagascar at 0446 with ID and frequencies, talk on Zimbabwe economy and ties to South Africa. (Ronda, OK)

North Korea Reform Radio, 9950 heard via Taiwan, in KK to 1300 close. (Ronda, OK)

Furusato no Kaze, (to North Korea), on 11825 in JJ at 1450. (Ng, Malaysia)

Radio Biafra (to Nigeria), 12050 via Rampisham at 1904 to 1959* with two M and numerous IDs, phone calls and text messages from listeners. (D'Angelo, PA)

Voice of Mesopotamia, (to Kurdistan), 11530 via Simferopol in Kurdish at 1325. (Patterson, Philippines)

PAKISTAN—Azad Kashmir Radio, Rawalpindi, 3976 in Kashmiri at 1804. (Patterson, Philippines)

PAPUA NEW GUINEA—Radio Buka, Kieta, (North Solomons), 3325 in Pidgin at 2130. (Patterson, Philippines)

In Times Past...

Here's your blast from the past for this month...

MOZAMBIQUE—Radio Pax, Beira, 7205 heard at 0350 on November 12, 1966. (Dexter, WI)

PERU—(All in SS—gld) Ondas del Huallaga, Huanuco, 3329.6 at 1000. (Wilkner, FL)

Radio Tarma, Tarma, 4775 at 0226 with SS vocals. (Parker, PA)

Radio Vision, Chiclayo, 4790 at 0444 with M preaching to a crowd, rustic song, another M preacher alternating with W. (D'Angelo, PA) 0519 with public address speaker. Intelligible on this occasion. (Parker, PA)

La Voz de la Selva, Iquitos, 4824.9 with talk and anthem at 1100. (No name)

Radio La Hora, Cusco, 4857.4 monitored at 2330 with IDs, music. (Wilkner, FL)

Radio Cultural Amuata, Huanta, 4955 with M talk but very weak at 2315. (Parker, PA)

Radio Bolivar, Ciudad Bolivar, 5459.8 at 1030 regularly the past two weeks. (Wilkner, FL)

PHILIPPINES—Far East Broadcasting Co., 9430 in CC at 1205. (Brossell, WI) 9435 with talk in II at 2320. (Ng, Malaysia)

PIRATES—KUSA, 6925u at 0035 with spoof songs and a skit and at 0214 with various rock. (Hassig, IL) *0136 and *0214 with rock and rock parodies, sketches. No address. (Zeller, OH) 0214 ending pgm with "Turn Your Radio On" and KUSANorthamerica@gmail.com for letters. (D'Angelo, PA)

MAC, 6850.3 at 0212 with folk rock, many IDs and 6851 at 0057 ending with national anthem. (Hassig, IL)

Wolverine Radio, 5925u, variously at 0129, 0222 and 0345 with early '70s things and big band tunes, "Take the A Train," etc. (Hassig, IL)

Undercover Radio, 6925u at 0405 with Dr. Benway, various stories, rock/pop. Address: undercoverradio@gmail.com, or Box 293, Merlin, ON, N0P 1W0. (Hassig, IL)

The Crystal Ship, 6876 heard at 0012 with The. Poet, clear ID at 0015 but conditions made IDing the music difficult. (Wood, TN)

WTCR, 6925u at 0209, 0228. On with the 20th Century Fox theme, '60s & '70s songs. 0228 with Fox theme, urban contemporary rock. Gave Box 1, Belfast, NY. (Hassig, IL)

Radio Gaga, 6925 at 0303 with Queen, mentioned frequency change to 6940 (not heard), then carrier cut. (D'Angelo, PA)

Barnyard Radio, 6925u at 0115 with 30s swing music, heavy metal, novelty tunes. (Hassig, IL)

Voice of Kaos, 6925u at 0050 with song, headline from a London newspaper, pop, Psycho Chicken. voiceofkaos@gmail.com. (Hassig, IL) 0357 with ID and mention of program number 12. Off with the *Get Smart* theme. (Hassig, IL)

Captain Morgan, 6925u at *2041 with rock and occasional theme from the old *Twilight Zone* TV show, captainmorgan@gmail.com for reports, which can also be sent to FRN. (Zeller, OH)

Outhouse Radio, 6925u at 0308, 0316 and 0508 with rock/pop, closed with Hendrix version of national anthem. (D'Angelo, PA)

WBNY, 6925u at 0020 with ID and discussion of rodent freedom fighters. (Zeller, OH)

Pirate's SMC relay, 6925u at 0101 seems the same transmitter as Big Dog Radio (below) of one of Ragnar's pirates. Numerous mentions of other pirates, most with log info. (Zeller, OH)

Voice of Honor, 6925u at 0054 and 0138 with a Labor Day broadcast honoring working women of WWII. voiceofhonor@gmail.com. (Hassig, IL)

WEAK Radio, 6925u at 0249 with techno things, woman with numerous IDs as "W-E-A-K, WEAK Radio. (D'Angelo, PA)

Voice of the Robots, 6925u at 0105 with rock, heavy metal. Some sweeper QRM. voiceoftherobots@gmail.com believed to be the address. (Hassig, IL)

Big Dog Radio, 6925u heard at 0020 with rock and barking dog SFX. Off at 0031, but returned with more at 0037. Asked for reports to both FRW and FRN. (Zeller, OH)

Channel Z Radio, 6925u at 0035 with rock. (Ronda, OK) 0115 with soft rock "the last channel you'll ever need." (Hassig, IL) *1434 with mostly obscure classic rock. Gave Belfast and a gmail address. (Zeller, OH) 2357 with rock/pop. M with extensive comments between numbers, partial IDs at 0014 and 0026. (Wood, TN)



A QSL from patriotic pirate KUSA.
(Thanks Rich D'Angelo)

Radio Amica (Euro), 7550 at 2115 and 2340 with techno dance things, light and Euro-pops, ID in Italian at 2348. (Alexander, PA)

Radio Playback Intl (Euro), 6870 at 0000 and at 0100 with oldies pop. Very poor. (Alexander, PA)

PORTUGAL—RDP Intl, 15560 at 1356 with pops to 1400 time pips, f/by news in PP. (D'Angelo, PA) 15770 with talks in PP at 1430. (Brossell, WI)

ROMANIA—Radio Romania Intl, 9580 with European Union news at 0000. (Linonis, PA) 9645 at 0323 with pgm called *RR/Encyclopedia* on Romanian history. (Strawman, IA) 11940 at 2210 about a festival. (Maxant, WV)

RUSSIA—Voice of Russia, 4975 via Dushanbe (Tajikistan), at 1820 and 5920-Petropavlovsk-Kamchatsky in RR at 0910. (Patterson, Philippines) 7225-St. Petersburg in RR at 0044, 7260-Serpukhov in RR at 0250, 12065-Chita at 1354 to IS at 1359 and off at 1400*, 13775-Vladivostok with ID at 0442, 13855-Moscow in Turkish at 1455 with what sounded like a language lesson and 13870-Moscow in RR at 1450. (Ronda, OK) 9665 via Moldova at 0253. (Parker, PA) 0345 on basketball there. (Maxant, WV) 9665 via Moldova at 0221, 9880-Armavir with *News and Views* at 0226. (Brossell, WI) 9890 with folk vocals at 0333. (MacKenzie, CA) 11745-St. Petersburg in FF at 1812, 11880-Krasnodar in SS at 0250 and 13775-Vladivostok with folk and pops at 0446. (Strawman, IA) 9890 at 0115 with *Christian Message from Moscow*. (Linonis, PA)

SAUDI ARABIA—BSKSA, 11820 with Holy Koran Service in AA at 1831. (Brossell, WI)

SAO TOME—VOA Relay, Pinheira, 4940 at 2005. (Patterson, Philippines) 4960 at *0258 open carrier, ID and Yankee Doodle IS and into W and news. (D'Angelo, PA) 0304 heard with *Hello Darfur* pgm in AA. (Ronda, OK) 0440. (Parker, PA)

SERBIA—International Radio of Serbia, 9675 via Bosnia at 0035 on the Serbian family unit. (Maxant, WV)

SLOVAKIA—Radio Slovakia Intl, 5930 at 0115 on prejudice and racism there. (Badman, NY) 0115 on Slovakian handicrafts. (Linonis, PA) 9440 in FF at 0215. (Brossell, WI)

SOMALIA—Radio Hargeisa, 7145 (tentative) at 2005 something here with Mideast-type music. Fairly strong carrier but weak modulation. (Alexander, PA)

SOUTH AFRICA—Channel Africa, 3345 with tribal vocals at 0356, time pips, ID, news at 0400. (D'Angelo, PA)

Radio Sondergrense, 3320 in Afrikaans at 2347. (Parker, PA)

SOUTH KOREA—KBS World Radio, 9650 via Canada at 1215 on the flu there. (Maxant, WV) 1245. (Patterson, Philippines)

SPAIN—Radio Exterior de Espana, 6055 at 0055 with SS music prior to close of EE at 0100, more SS pops at 0110. (Barton, AZ) 6055 in SS at 0417, 12035 in SS at 0325, 15110 in SS at 2150, 17715 in SS at 1732 and 17595 in SS at 2134. (MacKenzie, CA)

SRI LANKA—Sri Lanka Broadcasting Corp., 11905 at 0100 in possible Hindi with Indian music. (Linonis, PA)

SUDAN—Sudan Radio TV, 7200 in AA at 0343. (Brossell, WI) 0352, time signal at 0400. (Ronda, OK) 0445 to 0451 close, which was later than their usual 0430*. (Alexander, PA)

Miraya 101 FM, 15650 via Slovakia at *1500 with man and EE news, multiple IDs and later into AA. (D'Angelo, PA) Time pips at 1501, EE "Miraya FM" IDs and EE news. mirayafm.org. Into AA at 1510. (Alexander, PA)

Radio Dabanga, 13730 via Wertachtal with *1530 sign on with ID jingles and vernacular talk. Weak on //11500 via Madagascar. (Alexander, PA) 13840 via Madagascar in AA at 0450. (Ronda, OK)

SWAZILAND—Trans World Radio, Manzini, 3200 at 0402 in GG with religious instls, talks. (D'Angelo, PA; Ronda, OK) 3200 in GG at 0415 and 4775 in GG at 0420. (Strawman, IA) 1755 (Patterson, Philippines) 4775 at 0414 in GG. (Ronda, OK) 0452 with man preaching in EE, choir to 0455, EZL music to ID at 0459, more vocals. (D'Angelo, PA) 9500 at 0547 M preaching and traditional spirituals. (Wood, TN) 9525 in Lingala at 1926. (Parker, PA)

SWEDEN—Radio Sweden Intl, 7395 with vocals at 2155. (Maxant, WV) 11550 via Madagascar in Swedish at 0237. (Brossell, WI) 15735 discussing fine arts at 1345. (Linonis, PA)

SYRIA—Radio Damascus, 12085 at 1925

with talks in FF and local music. Gone at 1933 recheck. //9330 not heard. (Alexander, PA) Local vocals at 2145. (Maxant, WV)

TAIWAN—Radio Taiwan Intl, 5950 via WYFR at 0350 on Taiwan-U.S. dollar exchange and 7325 at 0355 with piano IS. (Maxant, WV) 11520 at 1020 with talk on Chinese classical music and 11605 in JJ to 0859 close. (Ng, Malaysia)

Fu Hsing Broadcasting (p) 9410 at 1158, poor with M/W in Mandarin, short music bridge at 1234 and back to talk. Lost in noise by 1240. (Ronda, OK)

TANZANIA—Radio Tanzania, Zanzibar, 11735 at 1800 with EE news, ID, into Swahili at 1809. AA-style music heard at 1814. (Alexander, PA)

THAILAND—Radio Thailand, 11870 in (l) Malaysian service at 1211 with AA-influenced music. Off at 1215 w/out anmt. (Strawman, IA) 15275 at *0000 with sudden opening ID over time pips and instl, then news in EE, tourist features, promos and comls. Off suddenly at 0029. (D'Angelo, PA) 0010 on Thai exports. (Maxant, WV) 0240. (Patterson, Philippines)

TUNISIA—7275 at 0531 with excellent signal in AA, W with ME music. (Wood, TN) 0417 with lively indigenous music. (Parker, PA)

TURKEY—Voice of Turkey, 7205-Emirler in EE at 2055. (Patterson, Philippines) 7325 on Turkish pops at 0321. (Brossell, WI) 0352. (MacKenzie, CA) 9460-Emirler in TT to Europe at 1830. (Parker, PA) 9785 at 1825 with piano IS to sudden signal loss. (Maxant, WV) 1827 with IS to EE service start at 1830, also 9830 at 2208, mentioning www.trtenglish.com. (Strawman, IA)

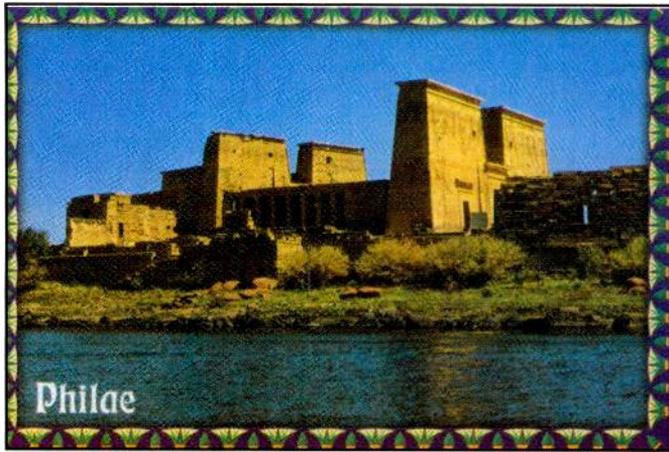
UKRAINE—Radio Ukraine Intl, 7440 in UU at 0326. (MacKenzie, CA) 7440-Lvov at 0333. (Parker, PA) 0350 with local vocals, W ancr. (Maxant, WV)

USA—VOA, 7430 Sri Lanka Relay with sports at 0123 and 9815 via Nauen in Hausa with talks at 2047. (Parker, PA) 7575-Thailand Relay in EE on immigration at 1212 and 9885 via Madagascar on Zimbabwe at 0412. (Ronda, OK) 9380 Thailand Relay at 1430 with long M talk in (l) Pashto. (Barton, AZ) 9760 Philippine Relay at 1201 with world news. (Brossell, WI) (Strawman, IA) 9780 Sri Lanka Relay with news at 0104. (D'Angelo, PA)

Radio Marti, 11930 in SS heard at 2337. Cuban jamming. (MacKenzie, CA)

Radio Liberty, 5820 via Biblis in Byelorussian at 2035. (Patterson, Philippines) 7290 in (l) Avar at 0320, 9760 via Biblis in (l) Tajik at 0321, 11700 in RR at 1233 and 12025 in (l) Uzbek at 0220. (Brossell, WI) 9465 via Thailand in RR for Siberia at 1912 and 12025 via Sri Lanka in (l) Uzbek at 0250. (Strawman, IA)

Radio Farda, 7280 via Wertachtal monitored at 0308 in Farsi with M/W talk, phone-ins. (Ronda, OK) 0318, mentioned www.radiofarda.com, U.S. pops. (Brossell, WI)



A card from Radio Cairo. (Thanks Mike Yohnicki)

Radio Free Afghanistan, 17685 via Thailand with M in Pashto at 1220. (Ng, Malaysia)

Radio Free Asia, 9445 via Saipan in CC at 1835 and 9905 via Palau in CC at 1745. (MacKenzie, CA) 9905-Palau in CC at 2047. (Parker, PA) 11500 at 1550 in (I) Pashto/Dari, 11605 via No. Marianas in (I) Tibetan at 1207, 11625 via No. Marianas in (I) Mandarin at 1500 and 15495 via No. Marianas in CC at 1527. (Brossell, WI) 11540 via Northern Marianas in CC at 1838. (Strawman, IA) 11895 via UAE in (I) Uighur at 0148. (Ronda, OK) 15340 via Northern Marianas in CC at 2310. (Ng, Malaysia) 7520-Maine at 2325. (Mackenzie, CA)

Armed Forces Network, 5446.5u-Key West heard at 0600 with MLB scores. (Linonis, PA)

Cheetah Radio, 11730 via Julich, at 1600 with EE ID and women discussing time management and other skills needed for getting a job. (Alexander, PA) 1602 (t) on wind and nuclear power, apparent pgm ID but very uneven reception. (D'Angelo, PA)

Sudan Radio Service, 17745 via Portugal at *1459 sign on with EE ID and contact info, *Let's Talk* pgm on human rights in Sudan. EE is Sat/Sun only. (Alexander, PA)

WYFR, 5985-Okeechobee at 0910. (Patterson, Philippines) 7570 in SS at 0443 and 9385 (t) in SS at 0340. (MacKenzie, CA)

WHRI, 7465-So. Carolina at 2330, 7520-Maine at 2325 and 17520 at 1740. (Mackenzie, CA)

Adventist World Radio, 6065 via Wertachtal with HOA music. (p) Tigrinya. Off at 0330. (D'Angelo, PA)

WRNO, Louisiana, 7505 at 0330. (MacKenzie, CA) 0355 to 0400*. (Maxant, WV)

WRMI, Florida 9555 at 2322 carrying World Radio Network, in turn carrying the Voice of Russia. (D'Angelo, PA)

KJES, New Mexico, 11715 at 1553 to close at 1600. (D'Angelo, PA)

WWRB, Tennessee, 17485 heard at 1554 and off at 1559. (MacKenzie, CA)

Trans World Radio, 12085 via Novosibirsk at 0043 with Hindi vocals. Off in mid-song at 0045. (Strawman, IA)

WBCQ, Maine, 5110//9330 at 0102. (Yohnicki, ON) 5110 at 0115. (Linonis, PA) 7415 at 0300. (MacKenzie, CA)

WBOH, North Carolina, 5920 at 2225. (Badman, NY)

WTJC, North Carolina, 9370 at 0336. (MacKenzie, CA)

WEWN, Alabama, 7555 in SS at 0830 and 11640 at 0920. (Patterson, Philippines)

11520 at 0330 and 11640 at 1102. (Maxant, WV)

UZBEKISTAN—CVC, 11800-Tashkent, poor but readable in EE at 0149. (Ronda, OK)

VATICAN CITY—Vatican Radio, 5885 in SS at 0345. (Patterson, Philippines) 6020 in CC at 1250. (Ng, Malaysia) 7250 in EE at 0503 and 0355 in Lithuanian. (Parker, PA) 7305 in SS at 0320. (MacKenzie, CA) 7335 in possible AA at 0115. (Linonis, PA) 9660 with African Service at 0255. (Maxant, WV) 12070 in (I) Tamil at 0220. (Brossell, WI)

VENEZUELA—Radio Nacional, 6060 via Cuba in SS/EE at 1130. (Linonis, PA) 15250 via Cuba in SS at 2330. (Barton, AZ)



WEAK Radio barely nudges the meter on this QSL sent to Rich D'Angelo.



Yet another Radio Tirana QSL design, this one of a museum in Korca. (Thanks Paul Gager, Austria)

VIETNAM—Voice of Vietnam, 5975 in VV at 0925. (Patterson, Philippines) 6175 via Canada at 0355 with listener letters from the U.S. (Maxant, WV) 0423 in SS. (MacKenzie, CA)

ZAMBIA—CVC/Radio Christian Voice, 4965-Lusaka, 0256 with Christian pops to 0300 ID and a religious pgm. (D'Angelo, PA) 0427 with EE religious songs and anmts. (Ronda, OK) 0431 W talk. (Strawman, IA) 0441 with contemporary Christian music and greetings to listeners, several mentioned by name. (Wood, TN) 0506. (Yohnicki, ON) 2310 with inspirational music. (Parker, PA)

ZIMBABWE—Radio Zimbabwe, 4828 heard at 0418 with lively vocal group, then ancr when voice modulation fell apart. Some CODAR QRM, prior to the entire transmission falling apart! (D'Angelo, PA)

And, once again, order is restored! Salutes and high fives to the following stalwarts who came through this time: Peter Ng, Johor Bahru Malaysia; Mike Yohnicki, London, ON; George Zeller, Cleveland, OH; Charles Maxant, Hinton, WV; Robert Fraser, Belfast, ME; Brian Alexander, Mechanicsburg, PA; Stewart Mackenzie, Huntington Beach, CA; Lee Badman, Jordan, NY; Jerry Strawman, Des Moines, IA; Jim Ronda, Tulsa, OK; William Hassig, Mt. Prospect, IL; Rich D'Angelo, Wyomissing, PA; Rick Barton, Phoenix, AZ; Robert Wilkner, Pompano Beach, FL; Joe Wood, Greenback, TN; Robert Brossell, Pewaukee, WI; Jack Linonis, Hermitage, PA; Fotios Padazopolus, NJ; Richard Parker, Pennsburg, PA; and T.C. Patterson, Cebu, Philippines. Thanks to each one of you! Good show!

Until next month, good listening!

North By Northwest (Umm...Delta), Via Sea-Tac

by Tom Swisher, WA8PYR
airscan65@gmail.com

This month, in honor of the upcoming Winter Olympics being held just across our border, in Vancouver, British Columbia, we head toward the northwest corner of the United States. And so for this episode of "Civil Aviation Monitoring" we land at Sea-Tac International Airport (KSEA) located in the city of SeaTac, Washington, halfway between Seattle and Tacoma. While we're in the area, we can also have a listen to Boeing Field and Grant County International Airport.

Sea-Tac Overview

Originally served by Boeing Field (known today as the King County International Airport), the city of Seattle constructed Sea-Tac in 1944 to replace then-Boeing Field after it was taken over for use as a military airfield during the war, with a financial assist of \$100,000 from the City of Tacoma. It wasn't long after completion that Sea-Tac joined Boeing Field as a military airfield, being taken over for the transshipment of B-29 bombers. Most commercial use of the field began in 1946,

"One regular problem at Sea-Tac has been confusion leading to taxiway Tango being mistaken for a runway; despite large X markings being painted at the ends, errors still occur."

and full passenger operations began with the dedication of a permanent terminal building in 1949.

One of the busiest airports in the country, Sea-Tac has three parallel runways: 16L/34R (the original and longest at 11,901 feet), 16C/34C (9,426 feet), and 16R/34L right (the newest and shortest at 8,500 feet). The main runway was extended to 7,500 feet in 1950, and as planes got larger and faster over the years, further extensions lengthened it to its present 11,901 feet. One regular problem at Sea-Tac has been confusion leading to taxiway Tango being mistaken for a runway; despite large X markings being painted at the ends, errors still occur.



An aerial view of Sea-Tac International Airport.

Sea-Tac has a central terminal and two satellite terminals, all connected by underground people movers. Opened in 1949, the main terminal (which also included the control tower) was expanded in 1960, and again between 1968 and 1973, when the original terminal building was enclosed in the present-day external structure and the two satellite terminals added. A new control tower was opened in 2004. At 269 feet high, this tower was designed to maximize visibility of the airfield as well as the effectiveness of both ground and wildlife radar systems.

Sea-Tac hosts over a dozen airlines at the three terminals, with American, Frontier, JetBlue, Republic, Virgin America, and Continental (among others) located in the Main Terminal; Air Canada, Alaska, and United in the North Satellite Terminal; and Aeromexico, Air France, Asiana, British Airways, Delta, Hainan, Lufthansa, and Sun Country in the South Satellite Terminal.

Sea-Tac has had its share of complaints over the years, with objections to expansion being a regular thorn. However, a notable problem for Sea-Tac has been noise complaints, with many lawsuits being filed in the 1970s. The end result was the purchase of over \$100 million worth of residential and other properties in the area, and other expenditures to soundproof more buildings. Noise abatement programs were also created and continue in use today.

Sea-Tac can be a fascinating place to monitor, for sounds you'll want to hear, but you'll definitely have to pick and choose what to listen to. Here, for your scanning pleasure, are some places to start out with:

122.95	Unicom
119.9/239.3	Tower, Runway 16L/34R, 16C/34C
120.95/239.3	Tower, Runway 16R/34L
121.7	Ground
118.0	ATIS
126.25	Gate control
126.87	North Ramp/Cargo
122.27	South ramp
119.2/284.7	Departure Runway 16
120.1	West approach/departure
120.4/269.125	Northwest approach/departure, Runway 34
125.6	Arrival west
125.9	East app/dep, Runway 34; northwest app/dep, Runway 16
126.5/391.9	South approach/departure
133.65/273.45	Approach, Runway 16
290.9	Approach
123.9	Spare approach/departure
338.2	Spare approach/departure

Boeing Field

Moving a little farther north still, we come to Boeing Field, officially King County International Airport (KBFI). Built in 1928, Boeing Field was Seattle's main passenger airport from 1928 to 1949. Owned by King County, Boeing Field hosts mainly cargo flights, but also sees quite a bit of general aviation use. Boeing also uses the field for testing and delivery of airplanes, including 737 passenger jets and AWACS aircrafts based on the 737.

There is no major commercial passenger traffic at Boeing Field, just small commuter airlines Kenmore Air and SeaPort Airlines. Major cargo tenants include Airpac, ABX, UPS, Ameriflight and BAX Global. A recent proposal by Southwest and Alaska to shift their operations to Boeing Field to avoid the

higher fees at Sea-Tac was denied on the grounds that Boeing Field does not have sufficient terminal capacity or public access to support that amount of passenger traffic.

An interesting tenant of the field is the Museum of Flight, located at the southwestern part of the field. The Museum has on display, among others craft, a Concorde; the prototype Boeing 737; a Douglas DC-3; and the City of Everett, the first flight-worthy Boeing 747 aircraft.

Boeing has two parallel runways. The main runway, 13R/31L, is 10,000 feet long and handles most operations; the secondary runway, 13L/31R, is 3710 feet long and handles general aviation aircraft.

To listen to the goings-on, check the following frequencies:

122.95	Unicom
127.75	ATIS
118.3/257.8	Tower east
120.6/257.8	Tower west
121.9	Ground
132.4	Clearance delivery
123.55	Boeing company operations

Monitor the Sea-Tac approach/departure frequencies for aircraft arriving or departing the field.

Grant County International Airport (KMWH)

Wrapping up our visit to the Seattle area (more or less), we visit Grant County International Airport, located to the east. Built in 1942 as the Moses Lake Army Air Base, the airport was intended as a training field, and while activity declined after the war, it was still used for some testing of the B-47 and B-50 bombers. Renamed Larson Air Force Base after the creation of the U.S. Air Force in 1947, the field served mainly as a subordinate facility of the Spokane Air Technical Service Command. Closed in 1966 due to budget cuts, Larson AFB was transferred to the Port of Moses Lake and was renamed.

Today, the field hosts mainly general aviation, but some regular military training flights do continue to use the field. Boeing also uses the field for aircraft test flights. The only scheduled passenger flights are regular United Express shuttle flights to and from Sea-Tac.

Grant County has five runways, with the longest (14L/23R) being 13,503 feet long. The other runways range from 10,000 feet (4/22) to 2,936 feet (14R/32L). If you're in the area, here's where to tune:

122.95	Unicom
119.05	ATIS
118.25/257.8	Tower east
128.0/257.8	Tower west
121.9	Ground
126.4/379.95	Approach/departure
134.35/370.9	Seattle approach/departure
126.1/291.6	Seattle Center

Off-Site

After you've checked out the radio traffic controlling the air traffic, make sure to take in all the interesting and scenic pleasures this area has to offer. Wander around historic Pioneer Square, grab a bite at the iconic Space Needle, and if you're feeling adventurous, head a bit farther afield to visit the San Juan Islands or the Cascade Mountain region. Oh, and I think there are some big sporting events coming up, just a short ferry ride across the border. Enjoy!

WRTH 2010

We are delighted to announce the publication of the 2010 edition of *World Radio TV Handbook*, the bestselling directory of global broadcasting on LW, MW, SW & FM

The Features section has a fascinating look at the BBC World Service, reviews of the latest equipment, an intriguing look back at some classic Cold War receivers, as well as our regular *Digital Update*.

The remaining pages are, as usual, full of information on:

- National and International broadcasts and broadcasters by country with frequencies, powers, languages, station addresses, email, web, phone and fax, leading personnel, QSL policy, and more
- Clandestine and other target broadcasters
- MW frequency listings by region
- International and domestic SW frequency listings, as well as DRM listings
- International SW broadcasts in English, French, German, Portuguese & Spanish, listed by UTC
- Equipment reviews, *Digital Update* and maps showing the latest information on SW transmitter locations
- A further revision of TV by country
- Reference section with Transmitter Site Location Table, STF Transmissions, DX clubs, Internet Resources, and much more

Available December 2009

SOME COMMENTS ON WRTH 2009

World Radio TV Handbook consistently sets the radio hobby standards. It remains the best, most authoritative and comprehensive radio reference book in the world; one that should be in every hobbyist listening post or radio room
 – *Gayle Van Horn W4GVH, Monitoring Times*

There is simply no better print reference for all manner of domestic and worldwide radio and television broadcasts – *Lee Badman, USA*

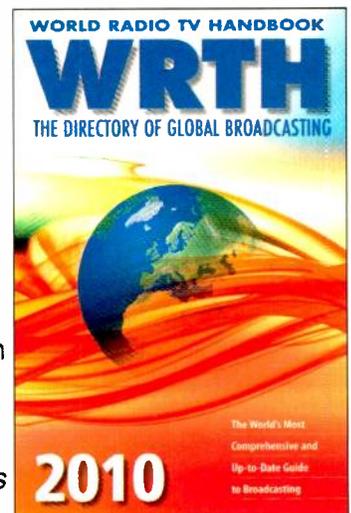
It's hard to see how much more the *WRTH* could be improved. As always, the *WRTH* is highly recommended – *Radio Netherlands Media Network*

I have just received my 2009 edition. Among the other broadcast references *WRTH* still remains the best and most comprehensive
 – *Hannes Gruensteidl, Germany*

It's rare that a publication can fulfill so many needs – insight and information, entertainment, and reference – and so with perfection. Yet that's exactly what *WRTH* manages to do
 – *William Patalon III, USA*

WRTH is very professionally edited and the updates on the internet are highly appreciated –
 – *Anker Petersen, DSWCI*

I have just ordered a *WRTH* for 2009 for the first time, and let me tell you: it's great! I've been a ham since 1967, and in all my years NOTHING comes close to you and your *WRTH*. Keep up the good work! – *Marc Manis K5NO, USA*



World News, Commentary, Music, Sports, And Drama At Your Fingertips



This listing is designed to help you hear more shortwave broadcasting stations. The list covers a variety of stations, including international broadcasters beaming programs to North America, others to different parts of the world, as well as local and regional shortwave stations. Many of the transmissions listed here are not in English. Your ability to receive these stations will depend on time of day, time of year, your geographic location, highly variable propagation conditions, and the receiving equipment used.

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

UTC	Freq.	Station/Country	Notes	UTC	Freq.	Station/Country	Notes
0000	6000	Radio Havana Cuba	SS	0300	4960	Voice of America Relay, Sao Tome	
0000	7225	Voice of Russia	RR	0300	7200	Republic of Sudan Radio	AA
0000	9580	Radio Romania International		0300	6055	Radio Exterior de Espana, Spain	SS
0030	9905	Islamic Republic of Iran Broadcasting	AA	0300	9645	Radio Romania International	
0100	6090	Caribbean Beacon/University Network, Anguilla		0300	7305	Vatican Radio	
0100	5025	Radio Rebelde, Cuba	SS	0300	5950	Radio Taiwan International, via Florida	
0100	6973	Galei Zahal, Israel	HH	0300	7415	WBCQ, Maine	
0100	10320	Armed Forces Network, Hawaii	usb	0300	7440	Radio Ukraine International	
0100	5930	Radio Slovakia International		0300	7280	Radio Farda, USA to Iran	Farsi
0130	6155	Radio Fides, Bolivia	SS	0300	6065	Adventist World Radio, USA, via Germany	Tigrinya
0130	11800	CVC, Uzbekistan		0300	4976	Radio Uganda	
0130	4885	Radio Clube do Para, Brazil	pp	0300	4780	Radio Djibouti	FF
0200	11710	Radio Argentina al Exterior	FF	0330	9890	Voice of Russia	
0200	6090	Radio Bandeirantes, Brazil	PP	0330	6175	Voice of Turkey, via Canada	
0200	5035	Radio Aparecida, Brazil	PP	0345	7425	Radio Tirana, Albania	
0200	7540	Radio Cairo, Egypt		0400	5975	Radio Nederland, Bonaire Relay	DD
0200	7215	Islamic Republic of Iran Broadcasting		0400	6165	RN Tchadienne, Chad	FF
0200	11935	NHK World Radio, Japan	JJ	0400	6070	CFRX, relay CFRB, Canada	
0200	9420	Voice of Greece	Greek	0400	7245	Deutsch Welle, Germany, Germany, via Rwanda	
0200	11855	BBC, Oman Relay	Farsi	0400	7475	Voice of Greece	Greek
0200	9665	Voice of Russia, via Moldova		0400	7110	Radio Ethiopia	Amharic
0200	7260	Voice of Russia	RR	0400	3970	Radio Vision, Peru	SS
0200	9440	Radio Slovakia International	FF	0400	3200	Trans World Radio, Swaziland	GG
0200	7505	WRNO, Louisiana		0400	3345	Channel Africa, South Africa	
0200	3320	Radio Sondergrense, South Africa	Afrikaans	0400	4965	CVC-The Voice-Africa, Zambia	
0200	3250	Radio Luz y Vida, Honduras	SS	0400	4828	Radio Zimbabwe	
0200	6020	China Radio International, via Albania		0400	3350	Radio Exterior de Espana, Costa Rica Relay	SS
0200	4925	Radio Educadora Rural, Brazil	PP	0400	7175	Voice of the Broad Masses, Eritrea	Tigrinya
0200	4905	Radio Anhanguera, Brazil	PP	0430	4775	Trans World Radio, Swaziland	
0200	5975	Radio Romania International		0430	13840	Radio Dabanga, Sudan, via Madagascar	AA
0230	11550	Radio Sweden, via Madagascar	Swedish	0430	7375	Voice of Croatia, via Germany	Croatian
0230	9880	Voice of Russia		0430	4770	Radio Nigeria	
0300	6165	Radio Nederland, Bonaire Relay	DD	0500	5910	Marfil Estero, Colombia	SS
0300	4985	Radio Brazil Central	PP	0500	5005	Radio Nacional, Equatorial Guinea	SS
0300	7215	Radio Canada International, via Vatican	AA	0500	11725	Radio New Zealand International	
0300	9870	Radio Prague, Czech republic		0500	7275	RT Tunisienne, Tunisia	AA
0300	6110	Radio Fana, Ethiopia	Amharic	0500	5865	RT Algerienne, Algeria, via France	AA
0300	11675	Radio Kuwait	AA	0500	5925	Radio France International	FF
0300	3340	Radio Misiones International, Honduras	SS	0500	4930	Voice of America, Botswana Relay	
0300	9410	BBC Cyprus Relay		0500	9720	Radio Victoria, Peru	SS
0300	4800	Radio Transcontinental, Mexico	SS	0600	13775	Radio Austria International	GG
0300	5010	RTV Malagasy	Malagasy				

UTC	Freq.	Station/Country	Notes	UTC	Freq.	Station/Country	Notes
0600	6250	Radio Nacional, Equatorial Guinea	SS	1530	17640	BBC Relay, South Africa	
0600	6180	Radio Educacion, Mexico	SS	1530	17745	Sudan Radio Service, USA, via Portugal	AA
0600	5446.5	Armed Forces Network, Florida	usb	1600	15630	Voice of Greece	Greek
0700	6170	Radio New Zealand International		1600	13570	WINB, Pennsylvania	
0800	9710	Radio Australia		1600	15605	Radio France International	
0800	9635	RT Malienne, Mali	FF	1630	9485	Deutsche Welle Relay, Sri Lanka	
0900	3310	Radio Mosoj Chaski, Bolivia	SS	1630	15205	Broadcasting Service of the Kingdom, Saudi Arabia	
0900	9580	Radio Australia			AA		
0900	7355	KNLS, Alaska		1700	17715	Radio Exterior de Espana, Spain	SS
0900	6010	Radio Inconfidencia, Brazil	PP	1700	17520	WHRI, South Carolina	
0900	3810	HD2IOA, Ecuador	time signals	1700	15235	Channel Africa, South Africa	
0900	3945	Radio Vanuatu		1800	12080	Voice of America Relay, Botswana	FF
0900	6010	La Voz de su Concencia, Colombia	SS	1800	15190	Radio Africa, Equatorial Guinea	
1000	6010	Radio Mil, Mexico	SS	1800	9830	Radio Jordan	AA
1000	4747	Radio Huanta 2000, Peru	SS	1800	11810	Radio Jordan	AA
1030	4717	Radio Yura, Bolivia	SS	1800	11965	Deutsche Welle Relay, Rwanda	Hausa
1100	11675	Voice of Croatia, via Singapore	Croatian	1800	9580	Africa Number One, Gabon	FF
1100	9625	CBC Northern Quebec Service, Canada		1800	15345	RT Marocaine, Morocco	AA
1100	3925	Radio Nikkei, Japan	JJ	1800	11820	Broadcasting Service of the Kingdom, Saudi Arabia	AA
1100	3280	La Voz del Napo, Ecuador	SS				
1100	9740	BBC, Singapore Relay		1800	9785	Voice of Turkey	
1100	9655	Radio New Zealand International		1800	11735	Radio Tanzania-Zanzibar	EE/Swahili
1100	3385	Radio East New Britain, Papua New Guinea	Pidgin	1800	17715	Radio Exterior de Espana, Spain	SS
1130	6110	CVC, Australia	ii	1900	11810	BBC Atlantic Relay, Ascension Is.	
1130	7280	Voice of the Strait, China	CC	1900	17680	CVC-La Voz, Chile	SS
1200	13600	Radio Bulgaria	SS	1900	11990	Radio Kuwait	
1200	13790	China Radio International		1930	9970	RTBF, Belgium	FF
1200	9525	Voice of Indonesia	II	2000	11610	Radio Nederland, via Florida	
1200	9695	NHK World Radio, Japan		2000	15120	Voice of Nigeria	various
1200	11580	Far East Broadcasting/KFBS, No. Marianas	CC	2000	11880	Radio Australia	
1200	9435	Far East Broadcasting Co., Philippines	II	2100	6155	Radio Austria International	GG
1200	11870	Radio Thailand		2100	11620	All India Radio	
1200	7575	Voice of America, Thailand Relay		2100	15205	Deutsche Welle, Germany, Rwanda Relay	
1200	11605	Radio Free Asia, via Northern Marianas	Tibetan	2100	17630	Radio France International, French Guiana Relay	FF
1200	9760	Voice of America Relay, Philippines		2100	15110	Radio Exterior de Espana, Spain	SS
1200	17685	Radio Free Afghanistan, USA	Pashto	2100	12085	Radio Damascus, Syria	
1200	2225	Radio East Sepik, Papua New Guinea	Pidgin	2100	11680	Korean Central Broadcasting Station, North Korea	KK
1200	5770	Myanmar Defense Forces Radio, Myanmar	Burmese	2100	11760	Radio Havana Cuba	
1230	17870	Radio Cairo, Egypt		2130	5900	Radio Bulgaria	
1230	9650	KBS World Radio, South Korea, via Canada		2130	9915	BBC	
1300	7240	Radio Australia		2200	11780	Radio Nacional Amazonas, Brazil	PP
1300	13580	Radio Prague, Czech Republic		2200	7210	Radio Belarus	BB
1300	9570	China Radio International, via Cuba		2200	7345	Radio Prague, Czech Republic	
1300	12065	Voice of Russia		2200	6160	CKZN, Newfoundland, Canada	
1300	7145	Lao National Radio, Laos		2200	9705	La Voix du Sahel, Niger	FF
1330	13590	Bible Voice Network, England, via Germany		2200	6300	La Voz de la RASD, Algiers to Morocco	AA/SS
1330	11710	Voice of Korea, North Korea		2200	11940	Radio Romania International	
1330	15735	Radio Sweden		2200	9830	Voice of Turkey	
1400	11705	NHK World Radio, Japan, via Canada		2200	15345	Radio Argentina al Exterior	SS
1400	15770	RDP International, Portugal	PP	2230	6090	Radio Nigeria	
1400	15560	RDP International, Portugal	PP	2300	6060	Radio Argentina al Exterior	SS
1430	13870	Voice of Russia	RR	2300	13790	Radio Havana Cuba	SS
1500	13680	China Radio International	CC	2300	9955	WRMI, Florida, WRB relay	
1500	11585	All India Radio	Hindi	2300	11930	Radio Marti, USA to Cuba	SS
1500	9605	BBC Singapore Relay	CC	2300	6025	Radio Amanecer, Dominican Republic	SS
1500	9335	Voice of Korea, North Korea		2300	9700	Radio Bulgaria	
1500	15650	Miraya FM, Sudan, via Slovakia		2300	11590	Radio Cairo, Egypt	
1500	11625	Radio Free Asia, via Northern Marianas	Mandarin	2330	15250	Radio Nacional Venezuela, via Cuba	SS
1500	15783	Galei Zahal, Israel	HH	2330	4845	Radio Mauritanie, Mauritania	AA

Trivia And Toons

by R.B. Sturtevant, AD7IL

Q. You've mentioned in the past that there were two types of Morse code—one used in America and Canada and one known as "International Morse." Which one is better adapted to radio?

A. Up until about the 1920s the actual term used was Wireless. Our Army and Navy operators used both code versions, and each operator who could send both did so at about the same speed. The problem, however, was that American, or "Railroad Morse" as it was also known, was much more "ditty," which meant that it was harder to read through heavy static. This may be the main reason why International became first the primary, then the only, Morse heard on the airwaves.

Q. I've read in the history of the Battle of Britain that there was something called the Battle of the Beams. What was that?

A. That was a cagey bit of Technical Intelligence gathering. In every modern war, technical types are trained in Military Intelligence and given equipment captured from the enemy to determine its capabilities. That way "our side" can determine how to out-fox it.

In early 1939, when the Germans started bombing Britain, evaluation of their radio sets revealed that the receivers were much more sensitive than they needed to be for typical usage. TAF (Tactical Air Force) Technical Intelligence also had some additional background supplied anonymously about aircraft guidance systems. They put Hallicrafters S27 receivers into obsolete Anson bombers and flew them up and down the English Channel. They discovered stations along the coast that were directing beams over England at the same altitudes that German bombers were flying. The Nazis used the beams to guide

bombers to their targets. A pilot would imply listen for the narrow beam; if he strayed out of it the tone would change. When he came to another beam, sent in at an angle, he'd release his bombs.

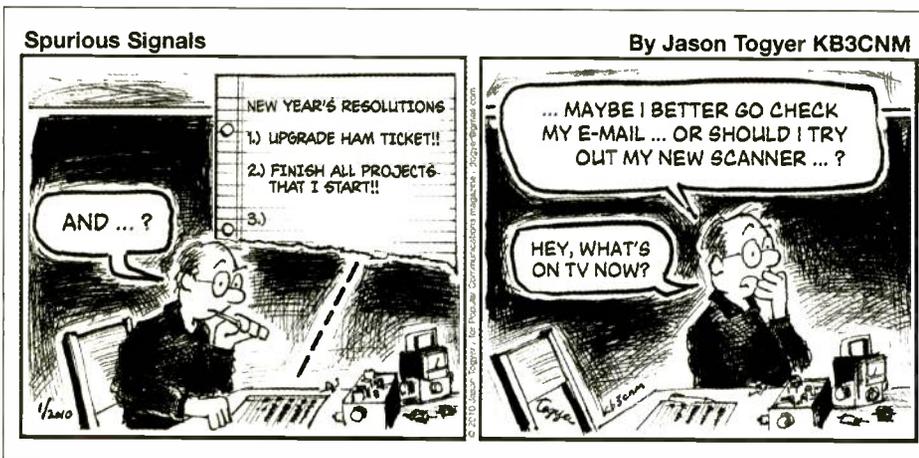
Knowing this, the Brits inserted overriding signals into the beams causing false signals that went in different directions than the ones the Nazis were sending out. A lot of Nazi bombs got dropped in cow pastures and potato fields instead of on factories, towns and air bases.

Q. During the Vietnam War our forward bases were often attacked. Did the enemy try to shoot up the antennas on the communications bunkers to eliminate contact with friendly forces?

A. They certainly did. Victor Charlie knew exactly what those antennas were and what it meant to their efforts if they could shoot them or otherwise break the wires. Our Special Forces A detachments kept their GRS-109 sets, their primary long-range rigs, in sandbagged bunkers with some dummy antennas on the roofs to make it harder for the VC to hit the "real" working antenna. If that failed, they would often use antennas buried 18 inches underground inside bamboo pipes. These underground antennas were first used by Army Signalmen who were operating near the front lines back in World War I for the same reason. A good idea never goes out of date.

Q. You keep telling us a lot about espionage and spies. Isn't their gear so specialized and out of the price range of most amateurs as to be useless to the average ham?

A. I'm continually amazed at what I find in the "average ham's" shack that I'm not sure I'd say that—plus *you* might be amazed at what some spies have used. One spy I read about was living in West Berlin working traffic into the Eastern Block. His antenna was a broom handle with 50 to 75 feet of antenna wire wrapped around it. There was also about 10 feet of "tail" from the top end of it. Placed in an apartment window, it got traffic through to the other side of the Berlin Wall. Totally portable and with no hardware or permanent fixtures, it could be disassembled for complete deniability if needed. That certainly isn't a very expensive piece of equipment and could be built and used by any "average ham" who had limited antenna space.



New, Interesting, And Useful Communications Products

ProScan Version 3.0 Scanner Software Released

ProScan, a leading developer of computer-aided software for scanners, has released an update to the company's flagship product, ProScan. The 3.0 release offers several new capabilities, such as streaming audio to Web browsers, RSSI value continuously updated in a history grid, and a mute button for muting scanner audio. It also provides many requested updates and bug fixes, such as correcting flicker or lockups caused by switching display views.

General features include: support of 11 types of scanners; support for 100 percent of a scanner's capabilities, including the newest Uniden Jump and Number Tag Tuning; tab layout for easy navigation; full-featured database with all scanner options showing in a logical layout resembling the scanner options structure; Upload, Download, Export, and Imports data from ProScan database files, Uniden UASD database files, RadioReference Web Service, and RadioReference CD; and Web server, ScanCast, Remote Control Scanner Over IP for all remote control and streaming.

The license for ProScan Version 3.0 costs \$50, which includes lifetime updates and use on two computers; a 15-

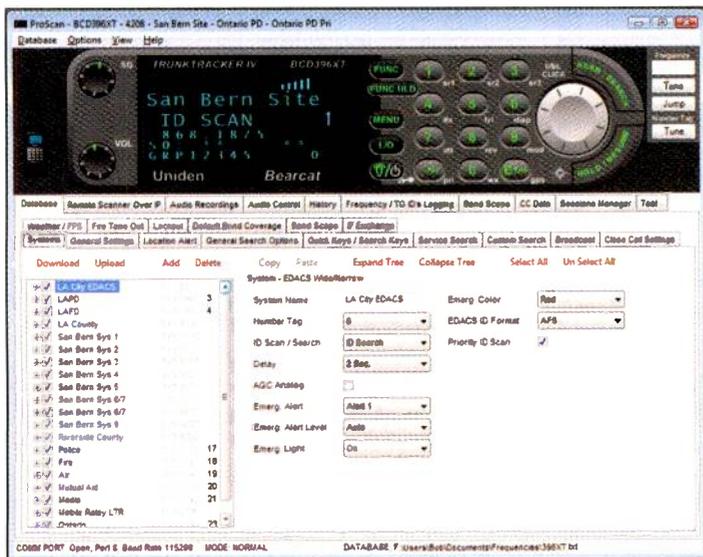
percent discount is offered on the purchase of 10 or more licenses. ProScan offers a free 30-day fully functional trial period. For more information or to download the software, visit www.proscan.org.

Morse Express 2009 Christmas Key

For procrastinators still looking for a Holiday gift, Morse Express is still offering its ninth annual Christmas Key. This precision miniature key, made by GHD Telegraph Key features larger keys, uses miniature ball bearings at the trunnion, miniature binding posts, comfortable knob, and perfect balance. The contacts are hard-silver and the mechanical parts have a deep polished chrome finish. The rectangular base is a heavy mahogany selected for warmth and grain. The knob is hand-turned.

The Morse Express Christmas Keys have always been miniatures, and the 2009 key is the smallest yet. It measures a tiny 1-3/4 by 1-1/4 inches at the base and weighs 1.6 ounces, yet it is surprisingly stable.

These limited edition keys are priced at \$89.95, plus shipping and handling. For more information, visit www.MorseX.com or call 303-752-3382; you may order toll free at 800-238-8205.



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Creating A Frequency Database

by Ken Reiss
radioken@earthlink.net

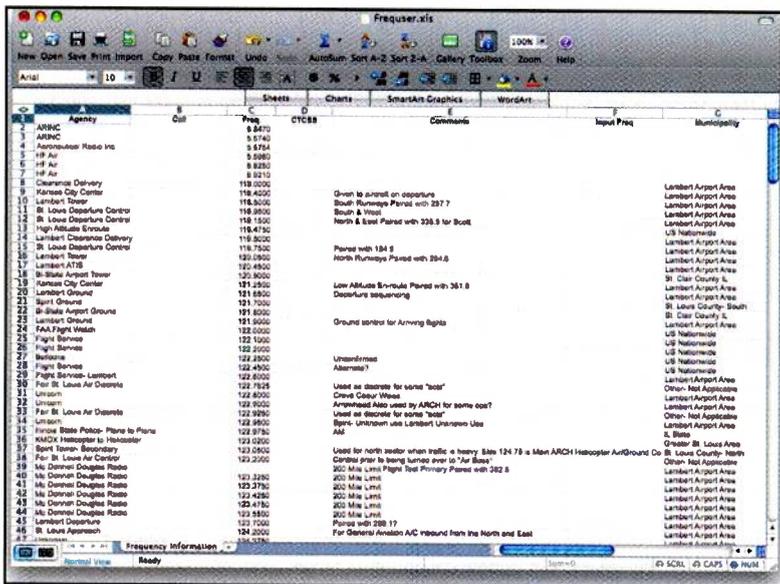
One of the tasks that can be such a headache to the scanner enthusiast is keeping track of a huge hodge-podge of frequencies. This may include frequencies that you come across but don't want in your scanner, frequencies that you haven't had a chance to listen to yet, and frequencies that you already know and want to distinguish from something truly new. If you have multiple radios, you may also find you need something to keep track of what frequency is in which scanner bank and channel. It's not complicated to use a computer to keep track of all this, but it can be a bit daunting to think of the information that you want. To give you a leg up, this month we'll take a look at some easy software that will help you keep all this straight.

Most of us manage to organize this information in one way or another. At the most basic level, we hoard a disorganized mess of notes and lists that other folks may have given us over. It's not pretty, but a lot of us still operate that way. Eventually, though, something will happen to raise your frustration to the "I-need-to-fix-this"

"There are a lot of different computer applications in the marketplace that will track information. Some of them are even purpose-built for scanner frequency data, but if they don't 'think' the way you do, or don't allow enough flexibility, they're a waste of your time."

level, and that's where a database comes in handy.

Probably the easiest system for getting all this organized is the good old-fashioned three ring binder. It's a tremendous improvement over the note-hoarding system, but still can offer some challenges in finding information in a hurry. Most people I know organize their binders either by frequency or by the agencies they're interested in listening to. If you have a word processor to help you sort and reprint the information in several different forms, it can be extremely helpful. At least a word processor has the advantage of being searchable without turning pages over and over.

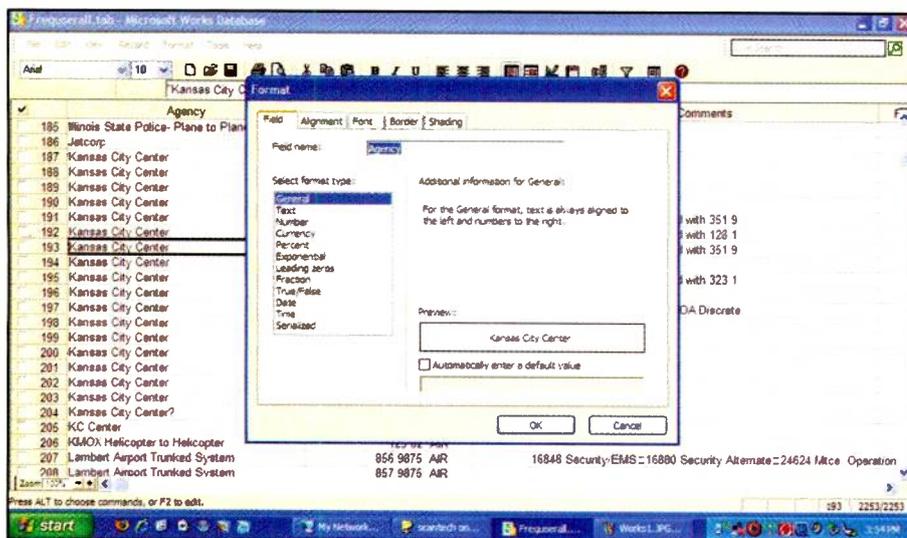


Even a simple word processor or spreadsheet works to get you started on a database. The advantage of a spreadsheet, like this one created in Excel, is that it can be re-sorted quickly into any order. There's a good chance you already have Excel, so it might be a good place to start.

Computerizing The Process

A friend of mine used to say "If you don't have a system that works, putting it on a computer will only make it not work faster." There's a lot of truth to that, and it's something to keep in mind as you consider getting your data moved over to the computer. It might be wise to sit down with a piece of paper or a stack of 3 x 5 cards to see what information makes sense to you. It may well be that you identify more than one type of information. For instance, you need to know what frequency is assigned to what agency. You also need to know that you have that frequency in Channel 4 of radio A, but it might be more useful to be able to pull out all of the radio A Channels at once, rather than having to flip through all of the agencies.

There are a lot of different computer applications in the marketplace that will track information. Some of them are even purpose-built for scanner frequency data, but if they don't "think" the way you do, or don't allow enough flexibility, they're a waste of your time. I'm, therefore, going to focus on the programs that are generic,



This dialog box is where you declare what type of data will be stored in each of the record's fields (see text). The only thing that typically matters in a scanner database is that a frequency must be a number so it will sort correctly if you ever want the data in frequency order.

al database can do more complicated searches and storage of data. They can also be quite a bit more trouble to set up.

Building The Database

The first thing to consider before you even start computerizing your data is the kind of information and reports you want to get out of the system. How do you want them to look? What things do you want to be able to sort by? How much time are you willing to spend organizing and keeping up the system? Again, think about what you'd put on a 3 x 5 index card for each frequency or agency you're interested in. There are probably as many kinds of information and ways to store it

as there are scanner listeners, so I won't even begin to suggest a "best" way to do it. I can, however, offer a few suggestions from what I've learned over the years that you might want to consider.

Of course, you'll want the frequency in question and probably some listing of the primary agency or licensee on that frequency. You might also want to "categorize" the usage of the frequency (Police, Fire, Dispatch, Mobiles, Air, etc.), which would be useful if you ever wanted to pull up all your fire frequencies, for instance. You might also store the callsign of the agency to help you identify it later. Or maybe you want information about the input frequency for repeaters. How about any CTCSS or DCS squelch systems that

are in use? What geographic area is served by this agency? You might also want a date of your last modification so you know how current the information is (some systems can enter this for you every time the record is updated). Notes or comments regarding dispatch numbers and codes can be some of the most useful information to store over the long run.

Another thing that database programs can do better than any other type of software is reporting. The ability to sort and print information in a variety of ways with just a couple of mouse clicks is a huge advantage. Some of the reports look like index cards, but printed on larger paper (although I guess if you're really dedicated, you could probably run index cards through your printer, too), or just as easily you can get a "listing" of reports that looks more like a page from the phone book. I find the latter most helpful.

Programs like Bento and Works have both a list view and a "form" view of information. The list view looks a lot like a spreadsheet on the screen and can be quickly sorted or searched. The form view looks more like the 3 x 5 card (though a bit larger) and only displays information for one record at a time. Both are useful, depending on what you're interested in. One thing to keep in mind is that you don't have to have every single piece of data on the list view; when you need to, you can switch to the form view to see the details. This will help you keep your listings a lot more readable on screen.

Get Started

So, where do you start? At the beginning, of course; you simply begin. Do something. Even if you don't have a computer, start thinking about what you want to track. Use actual 3 x 5 cards to get an idea. It's a wonderful exercise even if you do have a computer.

Try whatever software you have available, even if it's just a word processor. If you've never used the program this way before you might be pleasantly surprised with what it can do. A low-cost text handler I like to use is Text Edit. In addition to (very) basic word processing tasks, it can search all the text files in a particular folder looking for text inside documents. Some operating systems can also do this now too, so a special program may not be necessary.

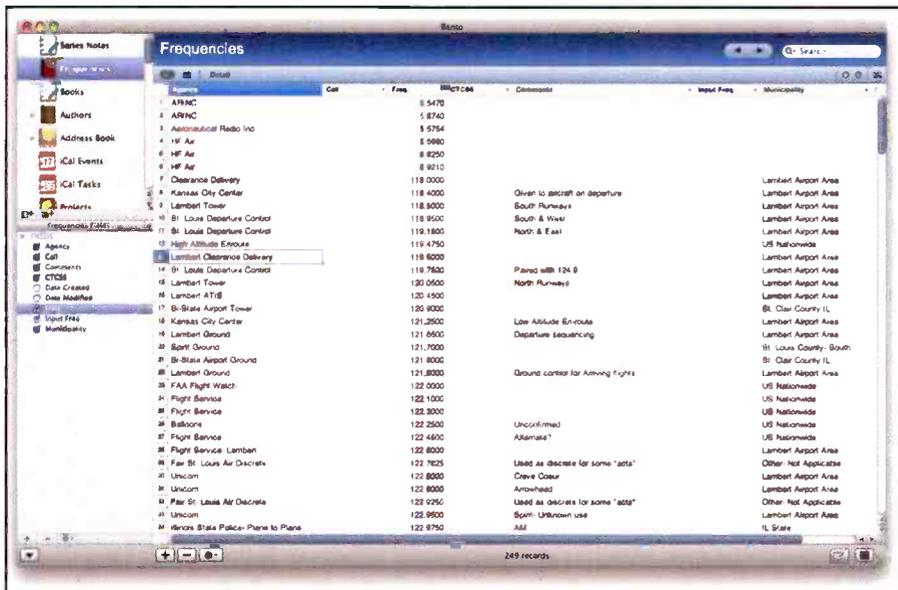
Be prepared to spend some time typing in the data. And be prepared to throw the whole thing away and start over when

Frequency Of The Month

Each month we ask our readers to let us know what they're hearing on our "Frequency Of The Month." Give it a listen and report your findings to me here at "ScanTech." We'll pick a name at random from the entries we receive and give that lucky winner a free one-year subscription, or extension, to *Pop Comm*. Remember to include your address in case it's your name that's drawn! Good luck!

Since we mentioned it earlier, let's get some information in on 462.575. Have a listen and let me know what you hear. Don't forget to keep your own notes, too! As you write in for the frequency entry, let me know what you've done with a data system, computer or otherwise? Send in your suggestions for fields and software. And don't forget to send in questions, information, and pictures of your shack to Ken Reiss, 9051 Watson Rd. #309, St. Louis, MO 63126, or via e-mail to radio-ken@earthlink.net. Please note frequency of the month entries with the frequency on the envelope or subject line for correct routing. And don't forget that address!

The most recent winner of our drawing is **Louis Borkowski of S. Tonawanda, New York**. Congratulations, Louis!



Bento, the new Macintosh-only (so far) database, is an easy-to-use system that provides a lot of flexibility for any kind of data. Here's its list view.



Here is the Bento form view. One unique function of Bento is that it allows multiple form views if you have enough data. You can also do some very basic relational databases with it (you'll have to do your own research on that), but I haven't found a use for that in a radio database yet.

you figure out a better way, or when you find another program that suits your needs better. In the meantime, you can have a lot of fun cleaning out that stack of notes you have (and you'll probably be reminded of several things you forgot).

You might need to have a look at the manual that came with your software to figure out what it will and won't do. Some software requires that you declare in advance the type of information that will be contained in a field. If yours does, look at the choices available. It should be pretty obvious to you what kind of data

goes where. Frequency data should be a number (a real number if you have a choice between real and integer). Agencies, callsigns, and notes fields all need to be text based.

Some software makes a distinction between a "short" text field and a "long" one. Generally a short text field is good for agency and callsign information (usually anything up to a certain number of characters), while a long text field is good for notes and comments that can grow and grow. Even the long text field will have some limits, but it's usually high

enough that it won't present a problem for a long time. My favorite program (Filemaker Pro) has a limit of 64,000 characters in a single text field. That's about 32 pages, which I think should be adequate for most things.

Worth The Effort

This is an extremely useful undertaking, and you can have fun with it, too. Yes, it's a bit of a chore to get all the data in there, but in the long run it will prove worthwhile. If you're not sure of your abilities, or your software, you might just enter a few records and play with them. See if anything becomes obvious that your system won't do before you spend a lot of time getting the data input. And see if any of your friends are using a system like this; perhaps you can all agree on a format and software so that you can exchange data easily. Wouldn't that be just too easy...

Until next month, Good Listening!

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Prince Edward Island DXpedition: Nothing On But The Radio!

by Bruce A. Conti
BAConti@aol.com

“Five DXers—Chris Black, N1CP, Bruce Conti, Phil Rafuse, VY2PR, Brent Taylor, VY2HF, and Niel Wolfish—converged on ‘the gentle island’ for what was to be an exciting trip across the radio dial.”

It was a typical cold and rainy autumn morning in the Canadian Maritimes. While we drove to the Prince Edward Island DXpedition site, we heard an announcer on a local radio station saying, “It’s a good day to stay in bed with nothing on but the radio!” Little did he know that this group of broadcast DXers was preparing for an entire week with nothing on but the radio, figuratively speaking, of course. Five DXers—Chris Black, N1CP, Bruce Conti, Phil Rafuse, VY2PR, Brent Taylor, VY2HF, and Niel Wolfish—converged on “the gentle island” for what was to be an exciting trip across the radio dial.

Location, Location

Prince Edward Island is an ideal DXpedition location. It’s remote enough to be away from the interference of local radio stations, surrounded by signal enhancing salt water, and relatively easy to travel to by car. Prince Edward Island has had no AM radio stations since its last two powerful stations, 630 CFCY and 720 CHTN, recently moved to FM. The closest radio stations are few and far between, from New Brunswick and Newfoundland.

The DXpedition took place at the Northshore “DX Cottages” of Priest Pond, on the north coast near the eastern tip of the island. The high conductivity of salt water is perfect for long-distance propagation of mediumwave signals. The wide-open Gulf of St. Lawrence saltwater path to the northeast and northwest enhanced transatlantic and transpacific reception, undoubtedly contributing to reception of places like India, Tajikistan, and Japan.

Transporting equipment to a remote location can be quite a challenge. The eight-mile (12.9 kilometer)-long Confederation Bridge connects Prince Edward Island to mainland New Brunswick for convenient access by car. This allows DXers to carry considerably more gear than would be practical by air travel, and it’s quicker and more reliable than island ferry service. Despite heightened homeland security, carrying a gaggle of high-tech radio equipment and spools of wire across the U.S./Canadian border by car was no problem.

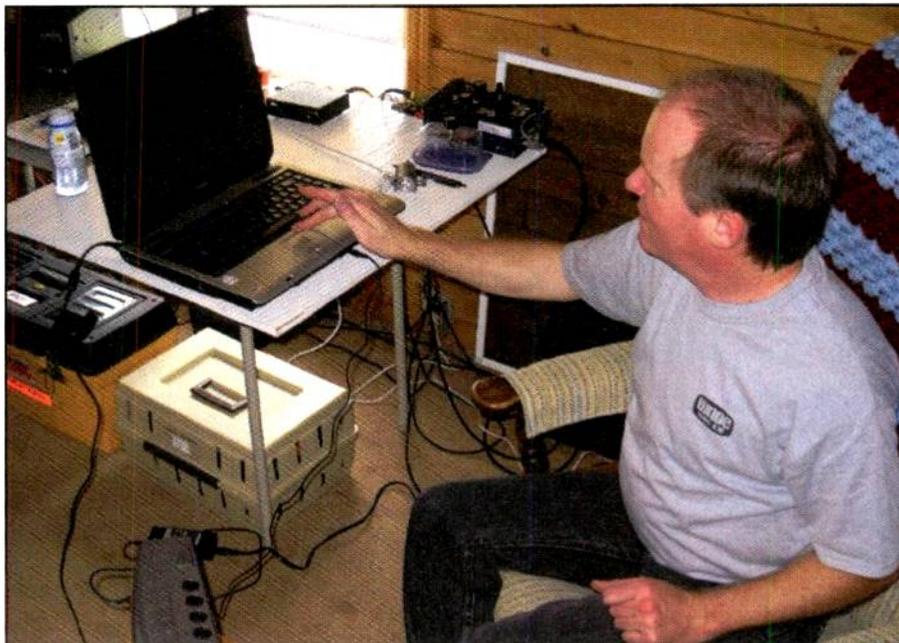
Antenna Proving Ground

Software-defined radios, general coverage tabletop receivers, and ultralight radios were all used to catch the action. However a receiver is only as good as its antenna, and there’s nothing like a DXpedition to serve as an antenna proving ground. Two variable termination broadband loop antennas, a directional Ewe antenna, a non-terminated 300-meter-long Beverage, and the ol’ RadioShack AM Loop were put into service. The terminated broadband loops proved to be the primary workhorses of the DXpedition. Chris Black set up his “Porta-Flag” terminated loop antenna on 5-meter poles at 40 degrees northeast. I aimed a 7 x 18-meter Delta terminated loop 80 degrees east. Phil Rafuse went with an earth ground terminated Ewe antenna toward the northeast. RF splitters were used for antenna sharing with Brent and Niel.

The Beverage was initially installed as a non-terminated “Beverage On Ground” (BOG) antenna at 120 degrees southeast with the hope for improved reception over a more southerly path than the broadband loops and Ewe, while the lack of a termination would also provide good north-



Chris Black mans the Perseus SDR with the RFSpace IQ SDR at work in the foreground.



Bruce Conti tunes the RFSpace SDR IQ with Saudi Arabia already coming in before sunset.

westerly reception of transpacific signals off the back. On the first night of DXing the BOG was a huge disappointment, way outperformed by the terminated broadband loops.

Our hypothesis was that the relatively high conductivity of the iron-rich local soil combined with rainy weather put the kibosh on the BOG. In general a Beverage performs best over land with poor conductivity, so for the next night the Beverage was supported by 1-meter tall stakes over its entire length. The Beverage performance was improved, producing readable transatlantic signals an hour or two before being heard on the loop antennas, but after local sunset there was too much domestic interference off the back without a termination. Furthermore, transpacific reception was best with the loops aimed, against instinct, in the opposite direction to reduce domestic broadcast interference. The terminated broadband loops were the clear winners again. We never did try terminating the Beverage for a unidirectional beam; maybe next time.

While these high-tech antennas were responsible for pulling in much of the DX, many of the pre-dawn Pacific Coast and Japan catches could be received simply with the Radio Shack AM Loop, a testament to the salt water enhanced island location.

Broadcast Loggings

West coast North America and 57 countries heard! Here's just a sample of

what was logged during the DXpedition. All times are UTC.

531 Kringvarp Føroya Útvarpid, Akraberg, Faroe Islands, at 2254 non-stop with music by Abba, Eminem, Pearl Jam, The Beatles, Bone Thugs 'n' Harmony, and others. No ID at 2300.

550 KFVR Bismarck, North Dakota, at 0905 Weather Channel forecast for Bismarck-Mandan, "The latest news on K-fire, KFVR," into Jim Bohannon show. At 1005 good; K-Fire Weather Channel forecast, Raspberries "Go All the Way," Saturday Night at the Oldies promo.

560 KMON Great Falls, Montana, first noted at 0915 with C&W music, ID at on the hour as "Big Sky Country, KMON Great Falls" into ABC news; fair underneath WGAN Portland.

570.05 KNR Nuuk, Greenland, heard at 2348 parallel to a stronger 720 with woman in Greenlandic. Seemed to be slightly off frequency. Mixing with CFCN.

585 RTT Gafsa, Tunisia, at 2243 under co-channel Spain; stringed Arabic music parallel to 630 kHz.

630 CHED Edmonton, Alberta, at 0458 "Coast to Coast" program, local news on the hour, "Voice of the Edmonton Oilers, 630 Ched" and "630 Ched guaranteed weather." Mixing with CFCO Chatham, Ontario.

630 NRK Vigra, Norway, at 2240 excellent with AC/DC "Back in Black," talk in Norwegian, 2300 fanfare with time check into news parallel 675 kHz.

630 RTT Tunis, Tunisia, at 2245 heard under co-channel Norway; strings and chants parallel 585 kHz.

657 Rai Radiouno, Italy, at 2300 good; what sounded like a garbled Morse code iden-

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Niel Wolfish and Brent Taylor at the dials for pre-dawn Pacific Coast DX activity.

tifier (heard only in LSB), time marker, and fanfare with Rai ID into news. The code-like identifier also noted on 1116 LSB and 1575 LSB, not heard in AM mode.

660 CFFR Calgary, Alberta, at 0855 under WFAN New York; "You're listening to 660 News overnight." 1015 good; sports with lead story about Calgary Flames hockey, 660news.com promo, and 660 News Overnight.

675 NRK Nordland, Norway, at 2258 fair, through co-channel Radio Maria Netherlands; on the hour attention signal with time check into news, parallel 630 kHz.

693 JOAB Tokyo, Japan, at 0750 the first signal from Japan with transmitter site dusk approaching. At 0840 fair; NHK2 network program with speaker in dry Japanese parallel 774 kHz. 0925 good; news/talk parallel 774 kHz.

693 BBC Radio 5, United Kingdom, heard at 0100 excellent, synchro echo; "On digital and online, this is BBC Radio Five Live" into news.

720 KNR Simiutaq, Greenland, at 0100 good; speaker in Inuit language. At 0800 excellent; classical music through the hour.

729 ERA Athens, Greece, heard at 2317 what sounded like Greek music; fighting co-channel Spain. At 0159 heard through RNE1 Spain; sign-on with instrumental national anthem.

747 JOIB Sapporo, Japan, at 0847 through 740 slop; speaker parallel 774 kHz. 0950 Japanese/English lessons, parallel to 774 kHz.

774 JOUB Akita, Japan, at 0908 excellent; woman with "Today's Angle" feature story in English about assistance to Ma Cong, Vietnam, parallel 693 and 747 kHz. 0914 Web address, "...at www.nhk.or.jp" into Spanish program.

783 Radio Syria 1, Tartus, Syria, at 0200

through an unidentified signal; sign-on with seven cycles of interval signal.

810 BBC Radio Scotland, at 0200 under CJVA; "...on BBC Radio Scotland" with an indie rock music program.

819 ERTU Batra, Egypt, at 2345 good; woman in Arabic and Middle Eastern music parallel 6290 kHz. At 0400 heard over an unidentified rock music station; woman with ID, "Idha'atu jumhuriya misr al arabbiya min al qahira..." into Koran.

820 Radio Paradise, Charlestown, St. Kitts & Nevis, at 0900 good; "This is Radio Paradise, broadcasting on...assigned frequency of 820 kilocycles...with 50,000 watts, our studios are located at Bath Plains, Nevis, with transmitter...on St. Kitts. We broadcast 24 hours daily. Radio Paradise is owned and operated by the Trinity Broadcasting Network... Santa Ana, California, U.S.A. Local address P.O. Box 508, Charlestown, Nevis, email address radioparadise820@msn.com, local phone numbers 469-1994, 469-5425, fax number 469-1642."

828 NDR Info, Hannover, Germany, at 0059 through unidentified station, with Koran; light instrumental, fanfare, "NDR Info, Nachrichten," and news in German.

828 JOBB Osaka, Japan, at 0848 fading up to fair; speaker parallel 774 kHz. At 0913 good; business news in English, 0915 now in Spanish parallel 774 kHz.

846 Umhlobo Wenene FM, Komga, South Africa, heard at 0050 brief bits of audio through presumed Rai DRM; presumed South Africa with talk and contemporary music.

873 AFN Oberursel-Wei?kirchen, Germany, at 0120 over/under Spain and unidentified Koranic vocals; U.S. Department of Health and Human Services PSA in English. 0159 ESPN Radio, then AFN Europe *Morning Newsline*.

882 BBC Radio Wales, Washford,

United Kingdom, at 0159 good; BBC World Service promos, "You're with the BBC," and news.

890 CJDC Dawson Creek, British Columbia, at 1014 C&W music faded up over WLS Chicago, ID as "AM 890 CJDC." More C&W and another ID at 1018, which mentioned "Peace Country."

891 Radio 538, Hulsberg, Netherlands, at 0058 poor to good; contemporary music, hyperDJ in Dutch with "Radio 538" mentions.

909 BBC Radio 5, United Kingdom, at 0100 excellent, with synchro echo; "On digital and online, this is BBC Radio Five Live. It's 2 o'clock, Daryl McKenzie has the Five Live news."

910 CKDQ Drumheller, Alberta, heard at 0848 promo for an estate kit available at CKDQ studios, 515 Highway 10 East in Drumheller. ID as "Q-91" and C&W music.

918 Radio Slovenija 1, Domzale, Slovenia, at 2347 "Papa was a Rolling Stone" by The Temptations. At 0000 time marker, "Radio Slovenija...program..." into news in Slovenian.

920 CFRY Portage la Prairie, Manitoba, at 1000 good; "CFRY your local information station" and news from "...the Portage la Prairie news center."

930 CJCA Edmonton, Alberta, at 1008 Christian/inspirational music followed by ID at 1013, "Music to live by...AM 930 The Light." Good over top of CFBC St. John.

950 Radio Reloj, La Habana and Mayarí Arriba, Cuba, at 1001 through domestics; RR code with one second delay between the two stations.

954 QRTC Al Arish, Qatar, at 2242 in Arabic with simulcast of Al Jazeera TV. Strong over top of co-channel Spain. At 0000 good, well over Spain; news in Arabic, sounded like an Al Jazeera TV audio relay with lots of synthesized fanfare into the news without ID.

960 CFAC Calgary, Alberta, at 1000 excellent; "CFAC 960 AM, Fan 960 and fan960.com, owned and operated by Rogers Broadcasting, we are the Fan 960 Calgary," and ESPN Sportscenter.

963 Radio 86, Pori, Finland, at 2154 German broadcast. ID and frequency list at 2158. Tunisia probably underneath. At 0200 excellent; "Radio Sitaya" or something similar with trumpet fanfare.

963 HLCR Andong / HLKS Cheju Island, South Korea, at 0950 poor to fair; man and woman parallel 972 kHz. Both 963 and 972 faded out by 0955 on a short transmitter site sunset opening.

970 KQAQ Austin, Minnesota, at 0923 underneath WZAN; "Classic Country Legends KQAQ 970 AM."

972 Radio Aap Ki Duniya, Orzu, Tajikistan, at 0000 fair; fanfare with raygun effects, Washington, D.C., and "Radio Aap Ki Duniya" IDs into news in Urdu. At 2300 English newscast and mention of Voice of America.

1000 KOMO Seattle, Washington, at 0944 over top of WMVP Chicago with com-



Phil Rafuse arrives at the DX cottage and can't wait to get started.

mercial for West Seattle Coin.com, mention of KOMO.com and a simulcast on 97.7. At 1035 traffic report and time check, "3:35 at KOMO News Radio."

1017 SWR Wolfsburg, Germany, at 2300 fair, over co-channel Spain; time marker, "MDR Info, Nachrichten."

1035 Tartu Family Radio, Tartu, Estonia, at 0200 good; TWR interval signal, woman in Russian.

1040 CKST Vancouver, British Columbia, at 1026 under WHO Des Moines with Vancouver ESPN promos and Mike & Mike program. At 1040 weak with several ESPN promos, quickly "Vancouver's only sports station" liner, into ESPN Sports Center.

1062 IRIB Kerman, Iran, at 0200 weak but alone on the frequency; man and woman talking softly, parallel 1026 kHz.

1070 KNX Los Angeles, California, at 1000 good; "This is LA's only all news radio station, all news all the time, KNX 1070 AM and HD, KTWW HD2, Los Angeles, Orange County and all of southern California," jingle, and CBS news.

1071 BSKSA Beesha, Saudi Arabia, heard at 2245 over/under co-channel Egypt; talk parallel 1521 kHz but delayed one second.

1089 Radio Rossi, Tbilisskaya, Russia, heard at 0157 pre sign-on test tones, 0200 Golos Rossii ID; through TalkSport synchro echo, 1088 Angola het, and unID Koran.

1089 TalkSport, United Kingdom, at 2012 "Tuesday Night Football" and Ford commercial. Stronger than parallel 1053 kHz. Somebody underneath in Arabic too. At 0200 synchro echo over Russia and het from 1088 Angola; "From the Sky News Center, TalkSport News."

1107 Moray Firth Radio, Inverness, United Kingdom, at 2045 bagpipe and fiddle music. Announcer said good night at 2058 and mentioned his show is 7-10 on Thursday.

Then commercials for businesses in Inverness. Poor signal mixing with co-channel Spain.

1116 Rai Radiouno, Italy, at 2300 rising over co-channel Spain; fanfare and "Rai, Radiouno" ID into news in Italian. At 0300 heard the same garbled code in LSB as noted on 657 and 1575 LSB, not heard in AM mode.

1134 Glas Hrvatske, Zadar, Croatia, heard at 2200 excellent, well over unidentified Middle East music; "Hrvatski Radio, Prvi Program."

1143 Radio Mayak, Bolshakovo, Kaliningrad, at 2200 fair, over Spain; Mayak

interval signal. At 2214 Russian program with pop music and lively announcers. Caught familiar "Midnight in Moscow" interval signal at 2249. Spain audible underneath.

1152 Clyde 2, Glasgow, United Kingdom, heard at 2335 "1152 Clyde AM" ID surfaced above the mess. Probably also them earlier at 2132 with a song by No Doubt.

1170 Radio Sawa, Al Dhabiya, United Arab Emirates, at 2103 rock music, ID, followed by Arabic pop music. At 2300 excellent; Mideast pop music, "Sawa" jingle.

1179 Radio Sweden International, Sölvesborg, Sweden, at 2141 English broadcast with report on Nobel Prize. Good signal. At 2158 excellent; "...I'm Bill Schillren, hoping you'll keep in touch everyday with Stockholm," classical music, then off, leaving co-channel SER Spain in clear.

1188 IRIB Radio Payam, Tehran, Iran, at 2201 a man in Farsi with newscast; over Germany. At 2258 good; Middle Eastern string music, fanfare with three ascending notes interval signal.

1214.85 Filakë, Albania, at 2158 a sub-audible het on the low side of 1215 kHz; off at 2200.

1215 VOR Bolshakovo, Kaliningrad, at 2025 excellent, over Absolute Radio; news/feature program in English about U.S. and Russia. 2200 interval signal, "This is Moscow..." and news in English. 2257 announcement of English program schedule, then bells of "Great Gate of Kiev" interval signal.

1215 Absolute Radio, United Kingdom, at 2300 good, over Kaliningrad; ad/promo string, "Absolute Radio Ticket Store" promo. At 2325 strong with Manic Street Preachers "Motorcycle Emptiness."

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1242 Absolute Radio, United Kingdom, at 2123 under co-channel France with Black Sabbath "Iron Man" parallel to 1197 and 1215 kHz. At 2200 good, over France Info; digital radio and Premier Global career training ads parallel 1215 kHz.

1287 Galei Zahal, Ramle, Israel, at 2258 good; pop vocal, fanfare, "Galei Zahal..." into news in Hebrew, parallel 6973 kHz. At 0135 Pink Floyd song parallel 6973 kHz.

1296 VOA Pol-e-Charkhi (Kabul), Afghanistan, at 2300 VOA news in English, the same announcer and script as the VOA news heard on 972 from Tajikistan.

1296 Radio XL, Langley Mill, United Kingdom, at 0500 over/under co-channel COPE Spain; "...and 1296 AM, this is Radio XL" into news. 2159 over COPE; subcontinental Indian music. Ideal Kitchens ad.

1323 VOR Wachenbrunn, Germany, at 0500 excellent with sign-on, "You're tuned to the World Service of the Voice of Russia. From the Voice of Russia World Service, here is *News Digest*." At 2037 good with French broadcast.



The Delta terminated loop antenna takes a beating during stormy weather.

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1323 Gold, Southwick, United Kingdom, heard at 0459 heard before VOR sign-on; "AM, online, and digital, playing the greatest hits of all time, this is Gold."

1332 România Actualitati, Galati, Romania, heard at 2100 good, well over co-channel Iran; "...Radio România Actualitati," time marker and fanfare into news.

1341 Magyar Katolikus Rádió, Szolnok and Balatonszabadi, Hungary, at 2100 under BBC Radio Ulster; two cycles of pipe organ interval signal. At 2146 choral singing and Hungarian talk.

1341 BBC Radio Ulster, Lisnagarvey, Northern Ireland, at 2100, "On 93 and 95 FM and 1341 mediumwave, this is BBC Radio Ulster," then news, "BBC news at 10 o'clock, I'm Ann Marie Foster." At 0500 excellent; "On digital and online, this is BBC Radio Five Live. Good morning, this is the breakfast program on Five Live..."

1350 Radio Orient, Nice, France, at 0458

poor to fair through domestics; Middle Eastern string instrumental, woman in French with ID and news on the hour.

1359 RNE Arganda del Rey, Spain, heard at 0500 good; time check, "En días como hoy...en Radio Nacional de España" into news.

1368 Manx Radio, Foxdale, Isle of Man, at 2118 car dealer/garage commercial, "Manx Radio" jingles. At 0500 fair; "Broadcasting from the Isle of Man...Manx Radio," into news.

1368 Galei Zahal, Filon and Shivta, Israel, at 2115 talk with mentions of Yerushalayim, then soft pop music parallel to 6973 kHz. Mixing with Manx Radio.

1377 France Info, Lille, France, at 2100 excellent; France Info ID, fanfare, and Le Journal, "Bon soir..."

1386.04 Euskadi Irratia, Ganguren, Spain, at 2101 good; network news parallel 1476 kHz. Slightly off frequency.

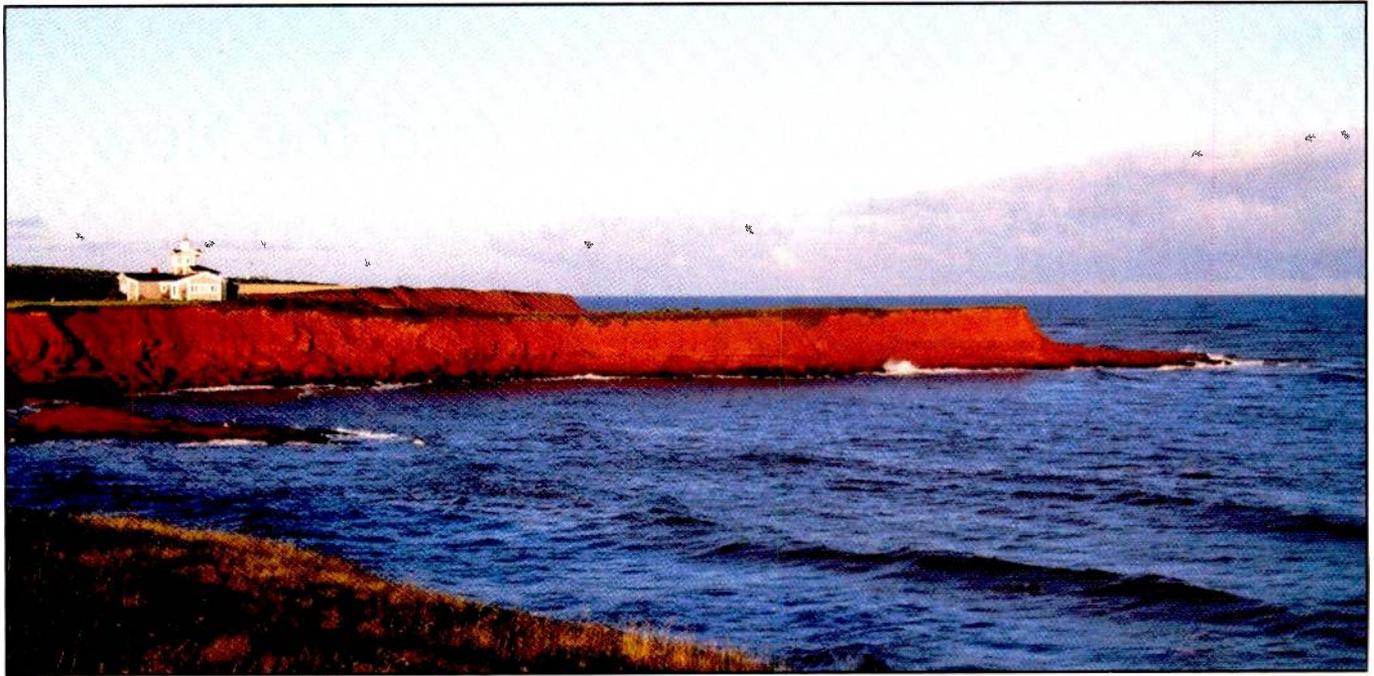
This Month In Broadcast History

75 Years Ago (1935)—Bob Hope made his first appearance on network radio as the Master of Ceremonies for Bromo Seltzer's *The Intimate Revue*.

50 Years Ago (1960)—"Running Bear" by Johnny Preston was number one on the 91 KEWB Fabulous Forty music survey in San Francisco. The National Association of Broadcasters proposed that any radio DJ found guilty of payola be sentenced to a year in jail plus a \$500 fine. Meanwhile many of the nation's television stations agreed to sign an FCC code of ethics after recent quiz show frauds were uncovered.



25 Years Ago (1985)—The VHI "Video Hits One" music video channel was launched on New Year's Day with the video "The Star Spangled Banner" performed by Marvin Gaye.



The spectacular view west from the Priest Pond DX cottage during better weather.

1394.77 TWR Fllakë, Albania, at 1945 fair; talk in Eastern European language. At 2028 strong; in Slavic language. 2100 excellent; one cycle of TWR interval signal and off.

1440 RTL Marnach, Luxembourg, at 2000 good; "Ici Radio Chine International" and woman in French. 2100, "This program is brought to you by Radio 86, in cooperation with RTL Luxembourg and China Radio International. For more information, please visit our home page, www.radio86.com. From Beijing this is CRI, China Radio International," and English program.

1458 Gold Manchester, Ashton Moss, United Kingdom, heard at 2102 newscast, "Gold weather across Manchester." 0300, "This is Gold," through Sunrise Radio.

1458 Sunrise Radio, Brookmans Park, United Kingdom, at 2000, good; "This is Sunrise Radio..." and jingle, time check into news. 2022, "Sunrise Radio" jingle, local Punjabi commercials with lots of phone numbers. 2001, "Sunrise Radio Network News."

1467 TWR Roumoules, France, heard at 2059 excellent; Arabic program with announcement of postal, email, and Web addresses.

1476 Euskadi Irratia, Miramon, Spain, heard at 2100 good; "...punto com" Web address, time marker and fanfare into network news with Euskadi ID, parallel 1386 kHz.

1485 SER Melilla and Spain, at 0300 time marker, fanfare, "Cadena Ser, Servicios Informativos," in pile-up with Onda Cero and UK stations. 2100 on top, triple pips due to delays between SER and/or Onda Cero synchros; "En Cadena Ser, hoy 24..."

1485 BBC Radio Merseyside, Wallasey, United Kingdom, at 2029 football match, ID

as "BBC Radio Merseyside" and phone numbers given. Spain audible underneath.

1494 France Bleu, Bastia, Corsica, at 2100 over/under France Info; Radio France Bleu ID and jingle.

1494 ERA Rhodes, Greece, at 2001 over/under France Info; ethnic vocal parallel 1512 kHz. 2044 parallel to 1512 with Greek music.

1503 ERTU El Arish, Egypt, at 2100 signature Big Ben chimes under Iran.

1503 IRIB Bushehr, Iran, at 2100 over Egypt chimes; Middle Eastern music, 2204 on top of the frequency, unidentified English in background.

1512 ERA Chania, Greece, heard at 2045 good; ethnic music parallel 1494 kHz. 2059 over Saudi Arabia; news/talk in Greek.

1512 IRIB Ardabil, Iran, heard at 2043 well over Saudi Arabia; talk parallel 1503 kHz.

1521 BSKSA Dubai, Saudi Arabia, at 1925 fading up with talk parallel 9555 and 9870 kHz; the earliest readable transatlantic signal.

1521 Gold, Duxhurst, United Kingdom, at 2100 heard under Saudi Arabia; "...this is Gold."

1530 România Actualitati, Mihaileni and Mahmudia, Romania, at 0032 ID as "România Actualitati" and Ray Charles "Georgia." Parallel to 1179 kHz. IDed after time pips at 0100 as "Radio România" followed by newscast. Poor to fair above WCKY Cincinnati.

1530 VOA Pinheira, São Tome e Principe, at 0259 VOA Yankee Doodle interval signal under Vatican and Romania.

1530 Pulse 2, Huddersfield, United Kingdom, at 0008 "The greatest hits for west UK of the 60s, 70s and 80s. Pulse 2," and

music by Eric Clapton and The Animals. Mixing with Romania.

1530 Radio Vaticana, Vatican City, Vatican, at 2159 good; three cycles of interval signal and ID.

1539 Radio Aap Ki Dunyaa, AlDhabiya, United Arab Emirates, at 2100 good; "From the VOA news center in Washington..." news in English. 2200 good; "It's 22 hours Universal Time, and here's the news from Voice of America."

1548 VOR Grigoriopol, Moldova, at 0300 good; interval signal, "This is Moscow. You're tuned to the World Service of the Voice of Russia," into news digest in English.

1566 AIR Nagpur, India, at 0035 fading in nicely during transmitter site dawn enhancement; woman with news in English until 0040, parallel 5010 kHz.

1566 BBC Bristol, Taunton, United Kingdom, at 2105 ID heard mixing with County Sound.

1566 County Sound Radio, Peasmarsh, United Kingdom, at 2200 fair, mixing with unidentified African string instrumentals (Benin?); "On air, online...24 hours a day, this is County Sound Radio" into news.

1575 Rai Radiouno, Italy, at 2000 garbled code-like ID heard in LSB mode, same as heard on 657 and 1116 LSB.

1602 Radio Vitoria, Vitoria, Spain, at 0300 through co-channel SER Spain; "Radio Euskadi y Radio Vitoria."

Visit BAMLog!online at www.bamlog.com for more DXpedition logs and terminated loop antenna construction diagrams.

Until next time, 73 and Good DX!

TiVo, The Internet, And The New Wave In Television

by Dan Srebnick, K2DLS
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"Television won't last because people will soon get tired of staring at a plywood box every night."
—Darryl Zanuck, movie producer,
20th Century Fox, 1946

"TiVo's time-shifting capability has completely changed the way that we watch television. There's always something that we want to watch in the TiVo 'Now Playing' list."

I first discovered TiVo a couple of years ago. It was a solution to a problem. I live about 25 miles south of the tip of lower Manhattan and do not subscribe to cable or satellite television. Instead, I use an attic mounted UHF television antenna and amplifier*. I just cannot bring myself to pay a monthly fee for something that is not any better than the free television that I grew up with. In preparation for the digital television changeover, which finally occurred on June 12, 2009, I needed a way to continue to record programs of interest. The TV tuners in our two remaining VCRs are both analog.

TiVo Series 3, the relatively low-cost HD TiVo, fit the bill. It comes with two tuners that receive both analog NTSC and digital ATSC transmissions, from Channels 2 through 69. The 80GB hard drive was a good start, and I added an external 500 gig Western Digital eSATA drive for lots of additional program storage. Now that all the full power analog stations in the area have gone

*Post DTV conversion, the UHF log periodic is picking up enough signal on Channels 7 to 13 that I didn't need to buy a VHF-capable DTV antenna.

digital, my reception is perfect on all the New York City channels, and I receive the additional digital channels as well. For a time I still used my old Panasonic 27-inch analog TV in the den and connected to the TiVo's tuner via standard RCA cables. That has since been replaced by a Sony Bravia 46-inch 120 Hz receiver. The HDMI connection provides much better resolution than the RCA connection I used to use.

OK, so I do have to pay the monthly TiVo fee, but we signed up for three years and pay around \$8 per month. It's well worth it. TiVo also now offers lifetime packages, but note that it is the lifetime of the DVR, not your lifetime! TiVo's time-shifting capability has completely changed the way that we watch television. There's always something that we want to watch in the TiVo "Now Playing" list. TiVo also records programs that it "thinks" we might like and offers them up as suggestions.

TiVo requires at least a dialup Internet connection. It uses this to download programming content and also uploads some metrics about your viewing habits. If this concerns you, read TiVo's privacy policy on the tivo.com website. The essence is that all data is for statistical analysis only and your individual viewing habits are not being tracked. However, if you have a broadband Internet connection, TiVo offers the ability to download movies from Amazon and Netflix. Additionally, free audio content, such as Live365, is available, as is free video content.

Web Series

I took a look one recent afternoon at the free video content available through TiVo. In addition to the global offerings I always enjoy seeking out (Figures 1 and 2), I also saw some interesting homegrown programs, actually more like short "progammettes," that caught my eye. Two of these programs are distributed by a company called KoldCast, and as I quickly learned, are also available directly on the Internet via a Web browser.

One program I checked out from TiVo's Video on Demand menu is called "After Judgment" (Figure 3). In this series, set in a post-apocalyptic world where the sun never sets and no one can die, an ex-priest enlists the help of a rag-tag band of strangers to find the last remaining entrance into paradise. The other program I found compelling is called "Dirty Bomb Diaries," and takes the form of a video blog of a young lady trapped



Figure 1. Iran NTV during the days of unrest following the June election.



Figure 2. The TROS Sterren (Stars in English) program guide. Note that “Piratenparade” is coming up at 03:01.

in her apartment after the release of a radioactive bomb on her city. Both of these programs are distributed through an Internet site at www.koldcast.tv and, therefore, no TiVo is required.

As stated on the company’s website:

KoldCast TV uses leading-edge technology to bring you the next generation television network—a multi-network, multi-channel entertainment venue delivering largely free entertainment on demand, 24/7 via broadband.

Here you will ultimately watch entertainment specific to your individual interests and tastes. You’ll meet incredibly talented performers and other creative people, and you’ll watch shows created for this new medium in a familiar way.

You are genuinely watching the next generation of TV taking shape.

There’s definitely a lot of programming available on Koldcast at no charge. There is an option to register for more features, but this is not required. I recently noticed that TiVo had not updated the feeds of my favorite Koldcast episodes, so I inquired via their website. David Samuels, the President and CEO of Koldcast, advised that TiVo is working on an upgrade to allow Koldcast to provide full 16:9 HD content at lower bandwidth to TiVo users. As soon as the upgrade is complete, Koldcast will be providing TiVo viewers with regular content updates.

According to Samuels, “In addition to the 25 feeds KoldCast TV currently provides, we have almost as many more new feeds



Figure 3. If you like science fiction, you might like “After Judgment” on koldcast.tv.

on hold as we await completion of TiVo’s work. Everything on our side is complete and ready to go. We just need to get the green light. TiVo subscribers should be very happy with TiVo’s upgrade. And the partnership between TiVo and KoldCast TV is as strong as ever.”

I ended up downloading the remaining episodes from Season 1 of “After Judgment” through iTunes. The final episode was a real cliffhanger. While I’m awaiting the TiVo update, I’ll be catching up with the rest of the “Dirty Bomb Diaries” on its website at <http://dirtybombdiaries.com>.

Another interesting Web offering stars Eden Riegel, best known for her role as Bianca Montgomery in the ABC soap *All My Children*. Eden’s protagonist has some imaginary friends who can be rather catty, giving the show its title, “Imaginary Bitches.” She meets with them regularly at www.imaginary-bitches.com in this series that was nominated for a 2009 Emmy in the “New Approaches” category. The cast also includes other well-known TV actors, such as Elizabeth Hendrickson and Billy Aaron Brown.

TV Guide called this program “the most shameless pleasure ever,” and it is incredibly funny. Most of Eden’s friends are in relationships and have relatively full lives. Eden, however, is relationship challenged. Either her imaginary friends are filling the gap or preventing relationships from forming. It depends upon your perspective. If you like unpredictable comedy, this program may be for you.

Eurovision

The annual Eurovision Song Contest is aired on EBU (European Broadcasting Union) member stations every spring,



Figure 4. The opening banner for the Eurovision Song Contest broadcast.



Figure 5. The 1960s show *I Spy* is one of the classic TV programs available on Real’s Superpass.

but did you know that you can now watch the festivities via the internet (Figure 4)? For those of you who haven't heard of Eurovision, probably the best-known winner was the Swedish group Abba, who performed "Waterloo" in 1974. The Eurovision website is found at www.eurovision.tv.

While the content for 2009 ended with the victory of Norway, the site has full information about this year's contest which was held in Moscow. You can view videos of performances and interviews with the singers and band members or watch the entire show if you missed it. Look for the Multimedia tab and then select Streaming (ESCTV). To watch the streaming content, you'll be asked to download and install an Octoshape streaming applet.

Each year, the event is held in the country of the previous year's winner. The 2010 event will be in Oslo and be broadcast live via the website. The website offers a complete online history of the contest, including a year-by-year synopsis going back to Lugano, Switzerland, in 1956. There is also a YouTube (www.youtube.com) collection of 50 years worth of Eurovision videos.

Real.com Superpass

Real.com, home of the Real Player software, is offering a 14-day free trial of its Superpass. With Superpass, you can watch movies, TV, and videos on your computer. You'll need to install Real Player. During the signup process, they'll ask you to download the Gold version of the software. If you just want to try things out and are not sure you want to pay a quarterly fee, you can sample their offerings from the free Real Player, available from real.com.

After signing up, launch Real Player and log on with your email address and password. You'll see some tabs where you can watch movies, online TV, or listen to radio. I selected the Online TV tab to take a look at the choices. You can catch up on missed episodes from the medical drama *House*, watch "Gumby" cartoons you haven't seen in years, or reminisce with classic episodes of *I Spy*, featuring Bill Cosby before he was funny (Figure 5).

I took a look through the movie choices and, frankly, it seemed like Real Superpass has bought out the inventory of an old video store. There are a lot of lesser-known titles, many of them foreign and direct-to-video productions. Scrolling through pages of movies did not reveal much that I wanted to watch, so it was a disappointment. I suspect that a paid subscription would

not be worth it to me, but take a look and decide for yourself. I'll be canceling my free trial.

World Wide Internet TV (WWITV)

World Wide Internet TV claims to offer 3,000 channels for your viewing pleasure via its website at <http://wwitv.com>. Stations are categorized as:

Education	Religious	Government	Sports
Lifestyle	Weather	Music	Travel
News	Videotext	P2P TV	Webcams

Stations can also be selected by country. Figure 6 shows a screenshot of the site's offerings of stations from the Netherlands. Note that the stream bandwidth is included to give you an idea of the stream quality. WWITV offers links to a lot of content. I like watching AT5, the local Amsterdam news station. Yes, stories are in Dutch, but I can usually pick up on the essence of the matter. Perhaps those old "Dutch by Radio" lessons on Radio Nederland paid off after all.

Stream quality is often quite good, although switching to fullscreen and watching at a close up viewing distance will often reveal the digital compression flaws in the signal being viewed. WWITV is somewhat reminiscent of Vtuner.com in its simple approach to presenting links to lots of video content. It is well worth exploring and completely free.

Hulu

No discussion of Internet TV would be complete without taking a look at Hulu via <http://hulu.com>. While WWITV makes media outlets around the world available via your PC, Hulu focuses on providing the viewer direct TV and movie content for free. The model is the traditional TV commercial sponsorship method. In many ways, Hulu seems to be the leading provider of television and film content via the Internet.

There is extensive current movie and TV content on Hulu. Its categories include:

Action and Adventure	Food and Leisure
Reality and Game Shows	Animation and Cartoons
Home and Garden	Science Fiction
Comedy	Horror and Suspense
Sports	Drama
Music	Talk and Interviews
Family	News and Information
Video Games	Web Originals

You can catch up on episodes of *Stargate SG1*, *Family Guy*, or *The Daily Show* and watch films like *Basic Instinct*, *Red Shoe Diaries*, or the original *The Taking of Pelham One Two Three*. Quality is good and the commercial interruptions are fewer than on conventional television. A free account is required to view content intended for mature audiences.

Wrap Up

As with FOTATV (free over the air television), satellite, and cable, there's a lot of junk out there. The key is to focus in on the quality programming, or at least entertainment value, that you want. The Internet is a great way to do that. Some services like Koldcast, Real, and Hulu let you select programs and movies—not just stations—when you want them.

What are you watching? Let me know via email at k2dls@arrl.net.

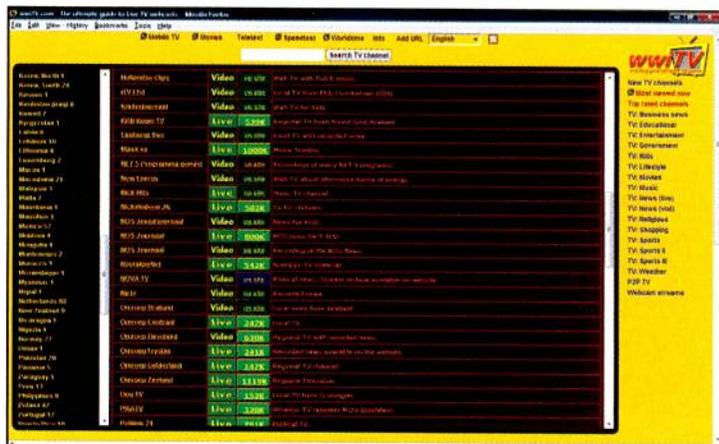


Figure 6. WWITV offers a menu-based system for accessing worldwide TV and video content.

Lawmakers' Interest In Ham Radio Expands To U.S. Senate

by John Kasupski, W2PIO
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For the especially observant among *Pop'Comm* readers, no, there isn't a mistake in my byline: my ham radio callsign has recently undergone a change. I am now W2PIO instead of KC2HMZ. Please also note the resultant change in my email address. I sincerely hope you will make use of it to offer feedback on this column, on "Utility Communications Digest, as well as the features

"But the primary value of this bill isn't that it might alleviate some of the antenna restrictions that hams have to contend with, it's that the measures in this bill simply make sense."

that I write for this magazine. But, now, on to the subject of this month's "EmComm Essentials"!



Photo A. Stand-alone radio systems are the best communications tool in emergencies and hams have both the necessary equipment and skill to operate them. Pictured here is Chris Krengel, KBØYRZ, a member of ARES (Amateur Radio Emergency Service), who helped provide communications during the Hayman fire, just south of Denver, Colorado, in 2002. (Photo by Michael Rieger/FEMA News Photo)

Good Things In The Works In Congress

In my September 2009 column I mentioned the "Amateur Radio Emergency Communications Enhancement Act of 2009" (HR-2160) introduced into the U.S. House of Representatives by Rep. Sheila Jackson-Lee (D-TX) last April 29 and which, by the way, now has 27 sponsors! I encouraged you at that time to write to your Representatives and ask them to support this important legislation that called for a study of the uses of ham radio for emergency and disaster relief operations (**Photo A**).

Well, it looks like some of you may have listened, especially the folks at the American Radio Relay League, who also recognized the importance of this legislation and asked its members to contact their representatives to try to obtain additional support for this initiative. ARRL Maine Section Manager Bill Woodhead, N1KAT, dropped off a letter at the office of Senator Susan Collins (R-ME, **Photo B**), and had Maine hams write to Senator Collins to ask for her support. According to ARRL, more than 40 hams wrote to the Senator.

This work has now paid off. On Tuesday, October 6, Senator Collins, along with Senator Joe Lieberman (ID-CT, **Photo C**) introduced S 1755, also called The Amateur Radio Emergency Communications Enhancement Act of 2009, in the U.S. Senate.

The status of the two Senators who introduced the bill in that chamber should not go unnoticed. Lieberman is Chairman of the Senate Homeland Security and Governmental Affairs Committee, while Collins is the Ranking Member of the committee.



Photo B. Sen. Susan Collins (R-ME), co-sponsor of the Amateur Radio Emergency Communications Enhancement Act of 2009 in the U.S. Senate.

Like HR 2160, S 1755 calls on DHS to undertake a study on the uses and capabilities of ham radio communications in emergencies and disaster relief and report its findings to Congress no more than 180 days after the bill becomes law. The bill states that the study shall include a review of the importance of ham radio EmComm relative to disasters, severe weather, and other threats to lives and property in the United States. The report would have to include DHS's recommendations for enhancements in the voluntary deployment of hams in disaster and emergency communications and disaster relief efforts and improved integration of hams into planning of DHS initiatives.

The study would also identify impediments to enhanced ham radio communications, such as the effects of private land use regulations on residential antenna installations, and make recommendations regarding such impediments for consideration by other federal departments, agencies, and Congress.

Finally, the bill would direct the Secretary of Homeland Security to "utilize the expertise of stakeholder entities and organizations, including the Amateur Radio, emergency response and disaster communications communities." The bill notes that Section 1 of Public Law 103-408 states that "Reasonable accommodation should be made for the effective operation of Amateur Radio from residences, private vehicles and public areas, and the regulation at all levels of government

should facilitate and encourage amateur radio operations as a public benefit." The bill also points out that Section 1805(c) of the Homeland Security Act of 2002 directs the Regional Emergency Communications Coordinating Working Group of the DHS to coordinate its activities with hams among 11 other emergency organizations, such as ambulance services and law enforcement.

An Ideal Wheel

Now, granted, any relief from restrictive regulations concerning antenna installations would be of enormous benefit to all hams whether they participate in EmComm or not. But the primary value of this bill isn't that it might alleviate some of the antenna restrictions that hams have to contend with, it's that the measures in this bill simply make sense. At a time when experience is teaching us that stand-alone radio systems are the most survivable communications systems at our disposal, at a time when interoperability is of paramount concern, at a time when the utilization of volunteers is the focus groups like ARES (Amateur Radio Emergency Service), CERT (Community Emergency Response Team), and the Medical Reserve Corps, it is folly to ignore the fact that these things are exactly what ham radio brings to the table.

Why re-invent the wheel when hams already have formal agreements with DHS, the Federal Emergency Management Agency, the National Weather Service, the Association of Public-Safety Communications Officials-International, the National Communications System, and disaster relief agencies such as the Salvation Army and Red Cross? Why look elsewhere for stand-alone radio systems when so many hams are already emergency communicators with both the necessary equipment and the expertise to operate it?

Individual hams and ham radio EmComm teams in many areas are currently providing the bulk of the communications capabilities for Medical Reserve Corps and CERT in their areas, and have (or ought to be working on developing!) relationships with these organizations as well as Red Cross and other non-governmental organizations that are active during emergencies and disasters. In areas where these relationships are already established, the officials from served agencies are well aware of what hams can do for them and are appreciative of that. In areas where these rela-



Photo C. Sen. Joseph Lieberman (ID-CT), co-sponsor of the Amateur Radio Emergency Communications Enhancement Act of 2009 in the U.S. Senate.

tionships have yet to be established, it's part of the DHS's job to spread the word.

In that sense, it's a shame that HR 2160 and S 1755 are necessary. DHS ought to be doing whatever it can to encourage efforts by hams and any other organized volunteers to be prepared to support emergency- and disaster-related operations. Consider those times when the response of the regular local emergency services are delayed or even non-existent. What makes more sense to you if you have to open a shelter in the aftermath of a disaster and need 10 or so people to help the local Red Cross chapter staff it? Using organized volunteers who have been trained to do that, or pulling 10 trained first responder paramedic firefighters away from their jobs in order to accomplish the same objective?

Help Us Help

For that reason, I'm simply thrilled to see the companion bill introduced in the Senate, and I sincerely hope that these measures will soon become law. I again encourage you to contact your representatives in Congress and ask them to support this legislation. In the meantime, consider volunteering some of your time to one of the worthwhile initiatives I've mentioned in this month's column. These programs offer you the opportunity to make a difference.

And until next time, remember...preparedness is the only option!

Buying A Radio In The Post-Apocalyptic, Post-Holiday Economy

by Kirk Kleinschmidt, NTØZ
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“Whether you’re looking to buy new or used, following are some tips on getting the most for your money, which is especially important in today’s economy.”

Now that the Holiday Season is a memory, but 2010 is still brand new, anybody with an Internet connection can search for deals, bargains, and sales galore from manufacturers trying to unload surplus items. At least for consumer electronics, the wonderful period post-Christmas till about the middle of January boasts some of the lowest prices of the year on *many* desirable items.

It’s too bad that ham radio equipment, because of its teeny overall market, doesn’t generally follow suit. You can probably find some bargains to be sure, but you probably can’t pick up a new transceiver or beam antenna for 70 percent off (unlike some of the juiciest holiday sale items, such as LCD TVs, computer parts, etc.).

Because computers are so integral to modern ham shacks, however, you can take advantage of *some* of the holiday deals. The online gurus who track the electronics sale madness surrounding the holidays assure me that 22-inch LCD PC monitors, for example, will be available for about \$100, maybe less. One—or two—of these will add some serious screen real estate to your computer logging, digital mode operating, or propagation forecasting operations!

Another bargain sector to keep an eye on this season is mini laptop computers. Capable, and more powerful, units based mostly on Intel’s upgraded Atom chipset are expected to sell for as little as \$150 during the “madness.” These are perfect for portable logging, PSK’ing, or APRS’ing.

Because I’ll be even a bit more cash-poor after my holiday shopping, I’m trying to keep my tech lust in check. But I was a good boy, so if I have a bit of green left over and see a new 500-Hz CW filter for my little ICOM transceiver, I just may have to do my part to keep the economy humming. It’s also time to upgrade my main productivity PC (not my hand-me-down shack computer) with quad-core CPU power and a stack of RAM, so I’ll be keeping a watchful eye for super deals on suitable AMD and Intel motherboards. That upgrade, by the way, frees up my speedy

dual-core AMD box to slide into the shack PC position on the adjacent desk, so there is a ham radio method to my madness!

So much for the situation of shiny new ham and general consumer equipment, the good news is that other hams who’ve treated themselves to upgrades may now be looking to sell their slightly less shiny treasures. Result: bargains for the wise shopper. Whether you’re looking to buy new or used, following are some tips on getting the most for your money, which is especially important in today’s economy.

Distance Buying, The New Norm

Bargains aside, all of this month’s talk of buying sprees and bargain hunting was spurred by the needs of my two young Padawans (Jedi apprentices, that is, in case you missed the last few decades): Garrett, KDØGTI, and Kevin, KDØGTJ, and a letter I received from an exasperated new ham who has pretty much gone broke trying to set up and use his first “inexpensive” station (more in a future column).

Kevin and Garrett were shopping for first rigs. Being especially interested in VHF and up, but with a future eye toward digital-mode operating at HF, “the boys” had pretty much settled on compact DC-to-daylight rigs that covered 1.8 to 440 MHz. The two researched every feature and accessory to the last nitty-gritty while I pontificated from on high, offering comments about this aspect or that!

In the end, Yaesu’s FT-897D was the transceiver of choice. It does everything reasonably well, has plenty of user enthusiasm and community support, and is affordably priced. As a counterpoint I suggested an ICOM IC-706MKIIG, which is quite similar (and familiar to me) and actually less expensive when purchased used, but the youngsters held firm in their decision.

Now that they knew *what* to buy, exactly *where* and *how* to make the purchase was next on the

agenda. That's the main topic of this month's column: How to safely buy radio gear in the post-economic-collapse era where the Internet has been replacing traditional buying outlets.

Unless you live in Japan, a relatively small country geographically with tons of hams and ham stores, you're surely sharing my laments over the ever-shrinking number of ham radio/communications stores in the U.S. New York City's fabled Radio Row has all but disappeared, and family-run stores around the country are almost gone, having long since dried up or suffered through the consolidation efforts of the handful of larger surviving ham stores. A recent notable loss was Burghardt Amateur Center in Watertown, South Dakota, a full-service store/shop that had been staffed with friendly, experienced hams since the AM era. Word has it that although the retail store no longer exists, the techs who fixed gear there are still up and running. Burghardt will be missed.

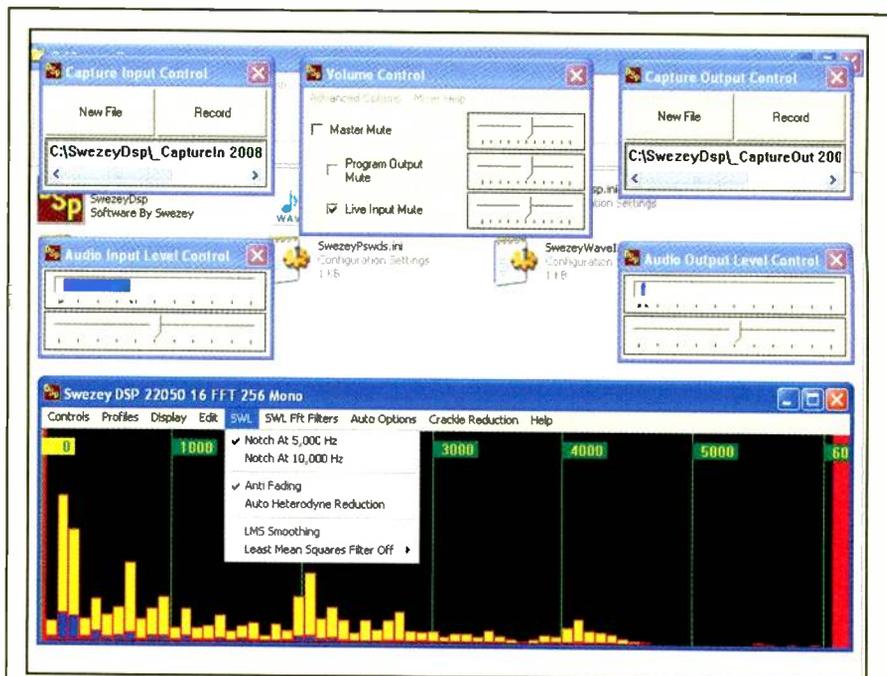
If you're very lucky, a local ham shop can provide access to new and used gear, service, and even some ham gossip, as necessary! You can chat with staffers, pick up insider equipment tips and twiddle the knobs of the demo sets. Dealers know that local buyers often become repeat customers. And repeat customers aren't always concerned with finding the lowest prices—an important fact in this crazy economy.

If you're out in the boonies, however, a round trip to the nearest radio store may take a day or more. No matter how good the service, "buying local" isn't always an option. Whatever your reasons, whatever your situation, buying your next rig over the telephone, via the Internet, or at a hamfest may be your best—or only—option.

Check It Out

Like the boys, after you've narrowed down your equipment choices it's time to research potential dealers and sellers. Price, policies, and procedures may make a difference in your situation. Some dealers take trade-ins, some offer generous return policies, and some accept certain credit cards that others don't.

After you've assembled a list of dealers from magazine ads, the Internet, fellow hams, etc., call each one and briefly ask about prices, trade-ins, service, shipping, etc.—everything that's important to you. Keep notes, or you'll get things mixed up.



Not too many years ago outboard DSP audio filters were all the rage. Some, like Timewave's 599ZX, were pretty much MIL-SPEC (and priced accordingly). Others, like W9GR's kit filters and even RadioShack's lowly DSP box, were affordable and improved the performance of current and older receivers. And although there have been tremendous strides in the use of DSP in VFOs and software-defined radios (SDRs), not much recent development has taken place when it comes to using your PC's soundcard DSP as a receiver-enhancing filter to eliminate heterodynes, noise and fading, and to add "brick wall" bandwidth filters for CW and various data modes. A search on the Internet seems to suggest that most sound card DSP filter development stopped in about 2001! As shown in the photo, one high-performance filter that has been recently upgraded, however, is the creation of Thomas Swezey, a Minnesota programmer, radio enthusiast and restorer of early phonograph recordings. His "Swezey Digital Filter" can be found at www.winternet.com/~swezey/products.htm or www.softpedia.com (search for swezey). I'm looking forward to trying out the demo. The full version costs \$39 and can be purchased online.

Making price inquiries on the dealer's 800 number is perfectly OK (always try to be brief), but if you have lots of technical questions use the store's regular number for non-sales-related inquiries. If the sales person seems rushed, rude, bored, or otherwise unfriendly, consider moving on (if you've made him or her that way then you should move on!). Remember to check out the store's website, as most or all of its policies are probably listed there in black and white.

Trading in your old gear may be challenging. Some dealers welcome most reasonable trades, while others are interested only in late model radios or don't accept trades at all. If you can fund your purchase in its entirety, consider selling your rig yourself. You'll probably get more money for it.

Some manufacturers, such as Elecraft and Ten-Tec, sell factory-direct only, so

be sure to check them out appropriately, because ham stores may only have used gear from such companies, if any at all.

Shipping charges should be fairly similar among dealers. Some dealers, however, "leverage" their low equipment prices with higher-than-necessary shipping charges. If someone's charging an arm and a leg for transport, you may not be getting a bargain after all!

For a list of ham radio stores and manufacturers, point your Web browser to <http://ac6v.com/stores.htm>. A list of ham sellers and companies that are out of business can be found there, too.

The Online Angle

Dealers aside, private sellers on eBay or online classifieds are selling more radio gear than ever before. Buying from non-local individuals adds an extra ele-

Here's *the* guide to all things ham radio, and if you don't already have it, you need to rectify that right away! The 2010 *ARRL Handbook* is hot off the press. First published in 1926, the new edition is the most massive *Handbook* ever, weighing in at a whopping 1250 pages, with more than 70 percent new or revised copy. More than 60 authors contributed the new material, including lots of new stuff about digital communications. An accompanying CD-ROM is loaded with software and supporting information. As the editor of the 1991 *ARRL Handbook*, I can tell you that not every edition is significantly updated. This is the one to get! You can buy it at your favorite amateur radio bookseller (list is \$49 for the softcover version), but I've seen it online for as low as \$32. You can be sure I'll be adding this to my shack reference library!

ment of risk when compared to buying from established dealers, so take steps to protect yourself whenever possible.

Most online sales sites such as eBay offer information about a seller's history and reliability. On eBay this is called a "feedback profile." As you can imagine, the closer to "100% positive," the better. A user who sells stuff that isn't as described, takes forever to ship, doesn't package stuff well, etc., will have a feedback rating that's commensurate with his past performance. The best sellers have a 100% positive feedback rating. Keeping that high rating is important for sellers because it helps buyers overcome "resistance" when purchasing. In my experience on eBay, a rating of less than 99% positive is cause for concern.

Paying for stuff on eBay can also be perilous. If you lose \$20 on a small item, you'll be annoyed, but you won't lose the farm. If you lose \$2,000 on a high-tech transceiver, however, all bets are off! One of the safest ways to buy on eBay is through a specialty payment processor known as Paypal. Subject to the fine print—which you must understand ahead of time!—buying through Paypal can protect you from crooked sellers. The fees charged by eBay and Paypal can total 10 percent of the transaction price, so not every seller accepts Paypal.

Demographically, older sellers prefer money orders or personal checks for online payments, while folks under 30 prefer credit cards and Paypal.

Online classifieds are where the best bargains can usually be found—accompanied by the greatest risk! The two outlets I frequent are the classifieds at www.eham.net and www.qth.com. Both sites have lots of ads, and I'm sure that most transactions done at each go through without a hitch. The fact that both sites have sections where disgruntled buyers can report unscrupulous sellers to other users is a clear indication that *not every* transaction complies with the Golden Rule.

Some classifieds sellers who are also active on eBay and similar sites accept Paypal (which lets buyers pay with credit cards), but, again, many prefer postal money orders or certified checks. There is *some* protection against fraudulent sellers with the latter payment methods, but not much! Getting your money back may involve convincing faraway law enforcement authorities to help you. You'll probably have to travel there in person, hire local lawyers, etc. The bad guys know this, and that's why they choose to rip people off in this manner. As with nuclear weapons, trust, but verify!

Being of the younger, Internet-friendly generation, Kevin chose to try to purchase a used FT-897D from a retired Coast Guard Commander in Florida through an ad posted at eham.net. Before he placed the offer we discussed the potential caveats but, in the end, he decided to attempt the purchase because the seller, through the details provided in

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his ad, seemed more than upstanding. After all, if you can't trust a Coast Guard officer, who can you trust? Then again, being far away, we can't be certain that the seller even knows which end of a boat to point forward, let alone hold up under the rigors of command. Buyer beware! I'll let you know what happened in a future column.

Smart Shopping

When you've talked to a sufficient number of sellers—retail stores or private parties—and put together a clear picture of the prices and services available, consider the following before finalizing the deal:

- Clarify the details. Before signing on the dotted line, make sure you and the seller agree on the make, model, price, included parts and accessories, sales tax, shipping fee, warranties, and return policies. Have the sales rep repeat everything back to you or have a copy of the deal faxed or emailed to you before making your purchase (awesome idea). Doing so

will minimize your risks and maximize your chances of getting exactly what you want at the agreed-upon price.

- Make sure you understand exactly which cables, brackets, adapters, and accessories are included before finalizing the deal. In many industries, ham radio included, the profit margins on the radios themselves is minimal. It's the accessories that bring home the bacon! Sometimes I can't decide which accessory pricing is more extreme, ham radio accessories or ink cartridges for inkjet printers!

- Make sure you can return it. In the computer industry, the 30-day return policies we used to enjoy have now diminished to 15 or even seven days, and amateur radio products have mostly followed suit (why can't Costco, with its amazing *one year* return policy, sell ham gear?). Make sure you're happy with whatever policy your dealer has in place, because it's not reasonable to negotiate that detail "after the fact."

- Restocking fees may apply. If you decide to take advantage of your dealer's return policy by returning your newly

purchased rig within the specified period, you'll likely be charged a restocking fee since the equipment can't be resold as new. Restocking fees can range from 0 percent to 20 percent of the purchase price. Although there's no standard for restocking fees, be sure you're happy with yours *before* you buy.

- Tech support is important. Modern radios are highly complex, so be sure you know exactly who will perform warranty service and repairs should your new rig need service. Will the dealer's in-house techs perform the service or will the unit have to be sent back to the factory? If your rig is dead on arrival, will you receive a new radio, or will you have to wait weeks while "major surgery" takes place?

- If possible, purchase big-ticket items such as computers and transceivers with a credit card (or an online payment service such as Paypal if buying on eBay or from a private party online). Don't use checks and don't use cash. Credit cards are your only real protection against fraud or wayward vendors. Most credit card issuers allow users 60 days to challenge a "deal gone bad."

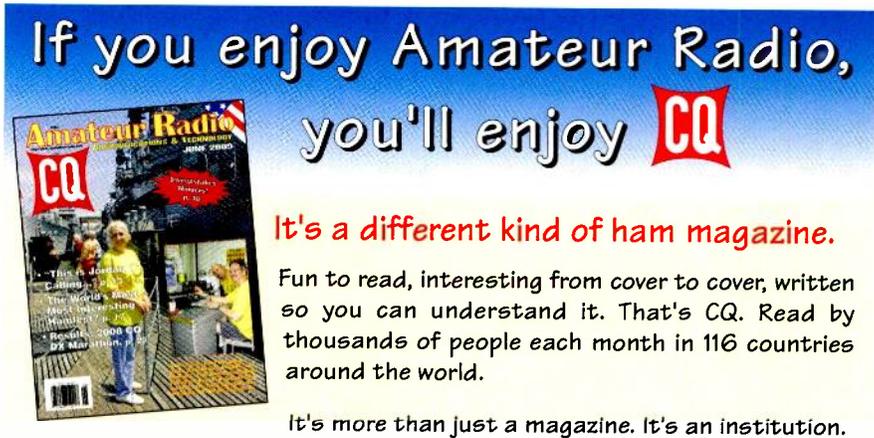
- Anything purchased over the telephone, online, or through the mail must be shipped to you within 30 days of the date originally agreed upon. If the vendor can't deliver, for whatever reason, you must be notified. Even if you agree to the delay, you reserve the right to cancel your order at any time, even after consenting to the delayed delivery schedule.

- Take notes! Be prepared for trouble by keeping an accurate paper trail of all correspondence, receipts, warranties, invoices, etc. As soon as trouble rears its ugly head, put everything in writing, including statements made during phone conversations, and send a copy to the vendor. When talking to sales reps and technicians, be sure to write down names, times, and a summary of the conversation. This is a bit tedious, but it can be a lifesaver—and a cash saver—when deals go bad.

First Do Your Homework, Then Enjoy Your New Gear

All of this stuff sounds a little scary, but if you do your homework, ask the right questions, seek the opinions of your ham radio buddies and club members, and read the feedback about various sellers and vendors in the online ham communities and user groups, you can almost certainly find a way to buy with confidence.

Until next month, good luck!



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Solar Cycle 24—Alive And Well

by Tomas Hood,
NW7US, nw7us@arrl.net

“The high frequencies were alive with contest stations over the entire contest weekend, with amazing 10-meter propagation the likes of which we’ve not witnessed for a good few years.”

The proof of the pudding is in the tasting. There has been non-stop, passionate speculation that the new solar sunspot cycle has stalled, or perhaps has not even begun. Because August saw no sunspots at all, during the calendar month, it gave the appearance that the speculations were spot-on. However, as previously reported in this column, the number of consecutive spotless days in August was not the longest on record.

Even if the smoothed sunspot count for August is zero—the lowest monthly count since before either Cycle 23 or Cycle 24—the average will still show a slow yet steady rise in solar activity since the first sunspot of Cycle 24 was observed, on January 4, 2008 (see the April 2008 edition of this column). The average will include the months before August, as well as the months since August. The smoothed observed sunspot count for September is 4.2. October was even more active than September, resulting in the highest 10.7-cm flux reading of the current solar cycle (at press time, 82!). Yes, the proof is in the pudding—or should I say the proof of the sunspot cycle is in the taste of sweet DX?

Steve Nichols, GØKYA, of Wymondham, England, shares the following:

I thought 10m was outstanding during CQWW. I worked more than 20 countries using 100W and a 65ft end fed inverted V with a 9:1 Un-Un. On 10m this usually beats a half-wave dipole cut for 10 and an 80m OCF Windom. Best DX from [grid locator] JO02NN was South Africa ZS9X, which I worked on Sunday at 09:50—a lot earlier than I expected. I also worked Israel, the rest were a lot closer around Europe, although I did snag a new DXCC entity in Armenia on 10m. My daughter who is licensed had fun too with her (license-limited) 10W.

The 10.7-cm flux during the CQWW SSB contest was 76, clearly enabling outstanding DX.

October—The Most Energetic Period Yet In Cycle 24

While September saw some very strong sunspot activity, with two sunspot regions emerging at the nearly the same time, October was a month of even higher solar activity. This pushed the 10.7-cm flux into the 70s through the entire month, breathing life into HF propagation. After

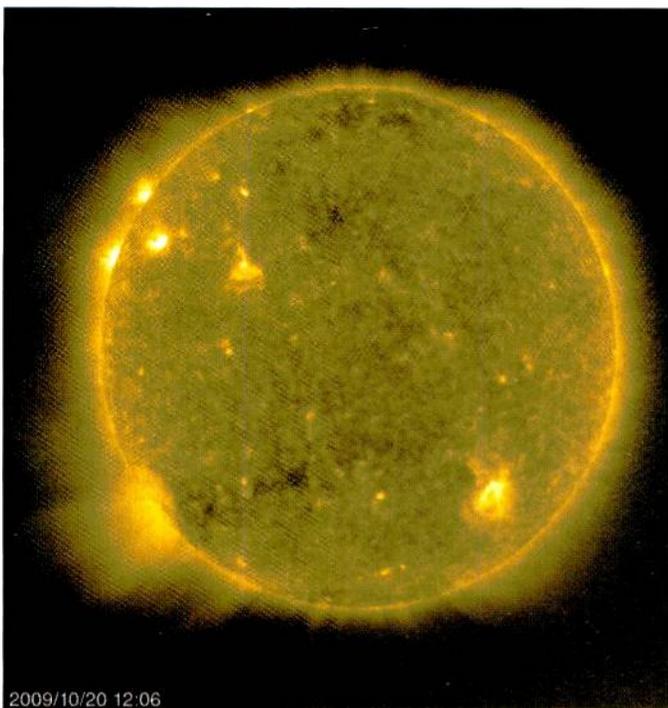


Figure 1a. This view of the sun on October 20, 2009, shows quite a bit of solar activity. In the upper left you see where sunspot region 1028 emerged. (Source: SOHO)



Figure 1b. This magnetogram view of the sun on October 20, 2009, clearly shows sunspot region 1028 in the upper left area. A small sunspot group, it only caused a slight increase in the 10.7-cm flux, with a reading of 71. (Source: SOHO)

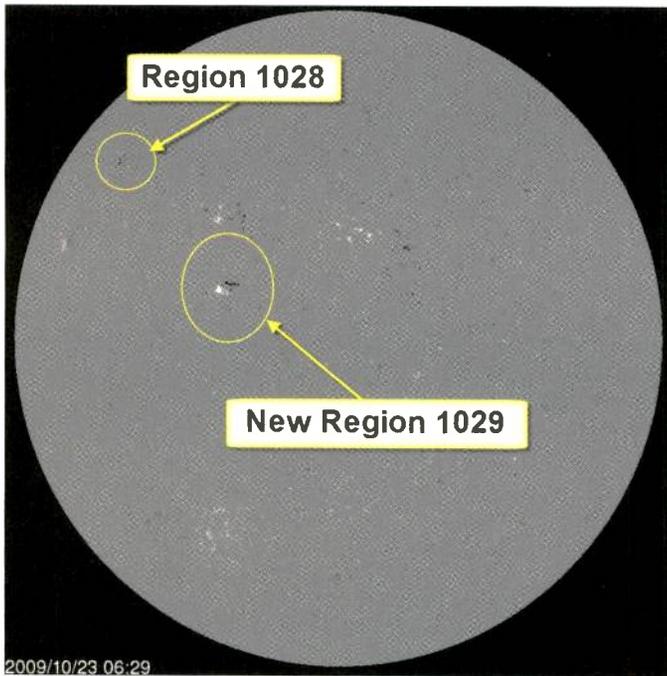


Figure 2. The magnetogram view of the sun on October 23, 2009, showing the struggling region 1028 from October 20th, and the newly emerging sunspot region 1029. (Source: SOHO)

the two sunspot regions of September rotated out of view, the sun remained quiet until mid-October, when they rotated back into view (Figure 1a and b). The leading region no longer had well-defined sunspots, yet still contributed to a rise in 10.7-cm activity. The excitement then erupted as the CQ WW SSB weekend dawned.

On October 20, a small sunspot region emerged with the weakest of magnetic structures, struggling to be counted as an official spot after its first day (Figure 2). Then, on the 23rd, another sunspot (numbered 1029 by NOAA) developed (Figure 3) began to charge up the ionosphere. By October 24, this new sunspot region was steadily growing larger and becoming magnetically more complex and powerful, pushing the 10.7-cm flux up to 76. By October 26, the flux was up at 81, and 82 by the next day (Figures 4, 5). The high frequencies were alive with contest stations over the entire contest weekend, with amazing 10-meter propagation the likes of which we've not witnessed for a good few years.

At press time, however, it does appear that things will grow quiet for a while during the start of November. But you can read the full report of the unfolding Sunspot Cycle 24 progress, each month in this column.

Mixed Blessings

Of course, with ever-increasing solar activity comes more than sunspots. For example, the frequency of coronal mass ejections (CMEs) increases, leading to an increase in geomagnetic



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UTC	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
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SOUTHERN SOUTH AMERICA	27	25	22	15	15	14	13	13	12	12	12	12	12	11	11	20	24	25	26	27	28	28	28	28
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THAILAND	10	9	9	9	8	8	8	8	8	8	8	8	11	12	12	11	11	11	10	10	10	10	10	
AUSTRALIA	24	22	16	15	14	13	13	12	12	12	12	11	11	18	18	16	15	15	14	17	19	21	23	
CHINA	10	9	9	9	8	8	8	8	8	8	8	8	8	9	9	8	8	8	8	8	8	8	8	
SOUTH PACIFIC	25	22	16	15	15	14	13	13	12	12	12	12	12	11	18	16	16	16	19	21	23	24	27	

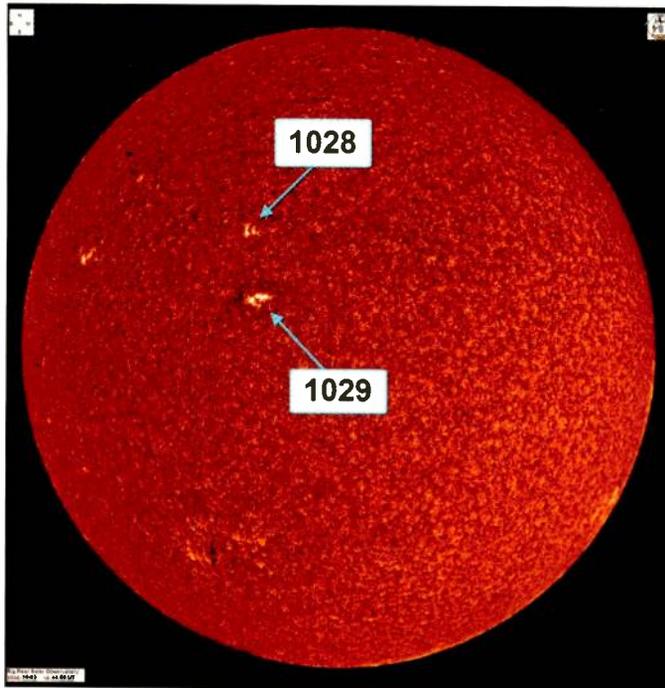


Figure 3. This image of the sun from October 23, 2009, shows two sunspot regions: Sunspot region 1028 struggled to remain an official sunspot group, while active region 1029 emerged strong and well-defined. In the days following, region 1029 continued to increase in size and magnetic complexity, pushing the 10.7-cm flux to 82, the highest yet in the new Solar Cycle 24. (Source: SOHO)



Figure 4. A stunning look at sunspot-active region 1029, on October 26, 2009. This magnetogram shows the very large, complex sunspot group that enabled world-wide DX on the entire shortwave spectrum, including 10 meters. The 10.7-cm flux rose to 82, the highest since the start of Solar Cycle 24. (Source: SOHO)

activity, which in turn degrades ionospheric propagation of radio waves. This is exactly what occurred during October, 2009. The Solar & Heliospheric Observatory (SOHO) observed a small CME that headed toward Earth (October 17–18, 2009; see **Figure 6**). The event created a dimming or darkening effect around the active region (whiter area) as it blew solar material both out into space and across the lower portion of the sun. Because the sun has been so quiet over the past two years, we have not seen very many CMEs, even small ones. Days later, the Earth seemed to have experienced only minor effects from the solar storm, seen in the form of some aurora on October 23.

This is the playing field in the game of high-frequency communications: When the solar cycle activity increases, energizing the ionosphere and enabling the propagation of higher frequencies, periods of geomagnetic storms also increase, disrupting HF communications. Additionally, when solar flares occur, those too degrade propagation of these shortwave communications.

Since the end of Sunspot Cycle 23, we've enjoyed very quiet solar conditions, rarely being subjected to geomagnetic storm conditions. Solar flares have been non-existent for the most part, as well. This is because solar flares are typically bred out of sunspot regions. If there are no sunspot regions, there are no flares.

Looking at the geomagnetic activity graph (**Figure 7**) of the planetary A-Index (A_p), you may see how incredibly quiet we've had it during the last three years—quieter than the solar cycle minimum between the older cycles on record.

Because of this extended very quiet period (several years in length), the propagation we've enjoyed on the high frequencies from the lower end of the spectrum to mid-HF spectrum (the

upper end falling somewhere between 31 to 17 meters) has been truly exciting and scientifically interesting. Discoveries have occurred that would not have been possible if the solar cycle minimum was shorter and more active. This incredible opportunity is passing. Solar activity is on the rise, and this means that we'll see more consistent swings between moderate and degraded conditions, unlike the long periods of very quiet, stable conditions.

One interesting observation has been made during the end-of-October excitement. Those who use 75 and 80 meters for conducting traffic nets have noticed very poor propagation around local sunset over the last few years. However, during the welcomed increase in solar activity from October 20 through the end of the month, net operators found that they could reliably use traditional frequencies at well-established scheduled times. During the last few years, they've had to change their scheduled times to compensate for poor conditions. But, happily, with a nice pickup in solar energy, conditions became much more communications-friendly.

High-Frequency Propagation

We're in the heart of the winter season, with very short daylight hours. Average daily Maximum Usable Frequencies (MUFs) are at their seasonal lowest, but so are noise levels. During the winter months the MUFs are generally higher during the daylight hours than during the summer daylight hours. This provides short but strong openings on higher shortwave bands during the winter day. Then, at night, the MUF dips down much lower than what would be seen during the summer nights. Summertime MUFs are generally higher during the night hours



Figure 5. This view of the very large, complex sunspot group, on October 27, 2009, shows the intensity and complex structure of active sunspot group 1029. (Source: SOHO)

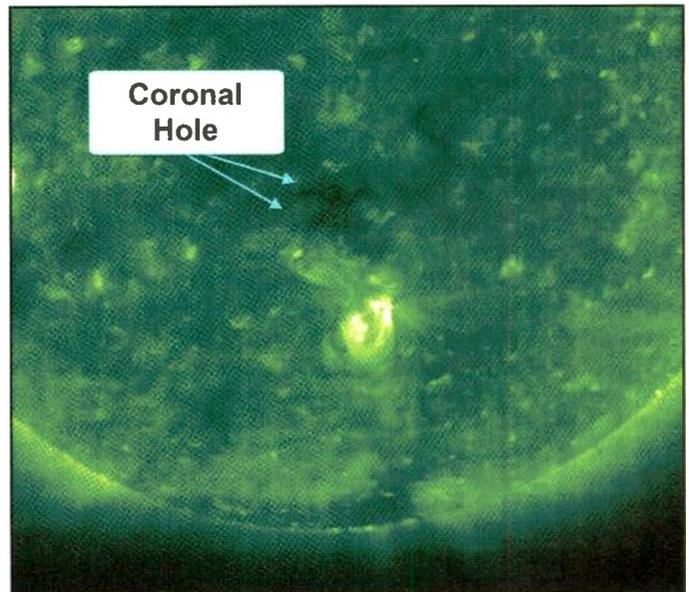


Figure 6. A coronal hole on October 17, 2009, unleashed a cloud of plasma directed toward Earth. This Coronal Mass Ejection (CME) arrived about three days later and triggered aurora. The activity south of the coronal hole in this image is a lot brighter than shown, but the released plasma mass has dimmed the image. (Source: SOHO)

than during the winter nights, due in part because the ionosphere stays energized through the short nights. Winter nights are longer, so recombination of the ionosphere (which results in a lowering of the MUF) is more complete.

This also means that the *D* layer of the ionosphere is less ionized during the winter, allowing mediumwave and shortwave frequencies to propagate through the *D* layer and off the *E* and *F* layers. Finally, the seasonal decrease in weather-related noise makes it easier to hear the weaker DX signals on lower frequencies. With thunderstorms few and far between, storm-related static and noise is greatly reduced.

Paths on 31 through 15 meters remain in their seasonal peak, especially between North America and Europe in the morning, and between North America and Asia during the late afternoon hours. Twenty-two and 19 meters continue to be the best daytime DX bands, with 31 and 25 running a close second. Plenty of surprises are possible on 31 meters during the morning and evening hours and well into the hours of darkness. North/south paths on 25 through 15 meters will be reliable and open for most of the daylight hours, especially where paths terminate in the Southern Hemisphere. Nighttime conditions on these higher frequencies remain short and weak, with mostly north/south path openings since the Southern Hemisphere has longer daylight hours.

Signals are strong on 90 through 41 meters this year, and seasonally they are at their nighttime peak. DX activity tends to increase later in the evening toward midnight. Look for Africa and South Pacific (Australia, Papua New Guinea, and so on) on 90 through 60 meters throughout the night. On 41, 49, and 60 meters, long path DX is possible along the gray line.

Seventy-five through 120 meters continue to remain stable, with very low noise levels. Some high noise may occur during regional snowstorms, but on average you can expect great nighttime DX conditions with the longer hours of darkness. Look for

Europe and Africa around sunset until the middle of the night, and then Asia, the Pacific, and the South Pacific as morning approaches.

Signals below 120 meters are also greatly improved, unless we experience those intense CME events, where conditions will become degraded. Mediumwave DX is really hot during this season, as you'll see below.

A Look At Mediumwave DXing: The Winter Season

The Mediumwave Broadcast Band, also known in the United States as the AM Broadcast Band (or simply AM band) currently extends from 525 to 1700 kHz. In the United States and Canada, channels are spaced in even 10-kHz increments starting at 530 kHz. Elsewhere, channels are spaced in 9-kHz increments starting at 531 kHz.

The hunt for signals from faraway AM broadcasting stations is an exciting activity, especially during the late fall and winter seasons. The distant stations you're able to hear depend largely upon signal propagation. Propagation at these frequencies is very different than that for frequencies in the high-frequency range (3 MHz through 30 MHz). Propagation of mediumwave signals varies depending upon the time of day, the season, and other factors.

For mediumwave, the most obvious factor for good DX is the time of day. The *D* layer of the ionosphere almost always absorbs mediumwave radio signals during the daylight hours. As a result, nearly all mediumwave signals received during midday hours will arrive by groundwave propagation, rather than by sky waves refracted off the ionosphere. Groundwave propagation makes reception of signals over a few hundred miles away unusual in daylight. At night, however, the ionosphere refracts these mediumwave signals, making it possible for radio

stations to be heard at much greater distances, sometimes as far away as Australia, Europe, and Asia.

The ground wave, as its name implies, travels along a path close to the Earth's surface. The distance a ground wave is able to travel depends upon the transmitter power, frequency, antenna pattern, and the Earth's conductivity along the path of the signal. Lower frequencies travel greater distances, all other factors remaining the same. A signal on the low-end of the AM broadcast band, say, 540 kHz, will travel twice as far as a signal broadcast on, say, 1600 kHz, if all other parameters remain the same for both stations. If the land between the transmitting antenna and the receiving antenna is rocky, a groundwave signal might only travel 150 to 300 miles. On the other hand, if the signal is moving over salt water, the groundwave signal could make it some 1,000 miles away.

While most groundwave signals are stable and strong, some fading and changes in reception can occur. Sometimes, this fading is caused by signal cancellation due to weak skywave reception at the same point where the groundwave component is received.

Groundwave propagation provides a broadcast station with reliable, stable coverage of their target audience, and radio station engineers optimize the antenna system to ensure the best delivery of that groundwave signal. During the day, because the *D* layer of the ionosphere so completely absorbs the mediumwave radio signals, groundwave is the only mode of propagation a mediumwave station can rely on. At night, however, because of the recombination that occurs in the *D* layer, and the sharp reduction in mediumwave signal absorption that results, many stations must reduce their power so that they don't interfere with other stations. Some stations must even cease transmitting during the night hours. Those stations that do not need to cease transmitting will have signals radiating up into the ionosphere and possibly refracting back to Earth at far distant locations, making for AM DX.

The ionosphere is, therefore, directly responsible for mediumwave DX signals. After sunset, when the *D* layer is no longer under direct radiation from the sun and nearly disappears, mediumwave signals make it up to the *E* and *F* layers, to be refracted back to the Earth, much like a flashlight beam might be reflected off a mirror. The distance of the skywave skip

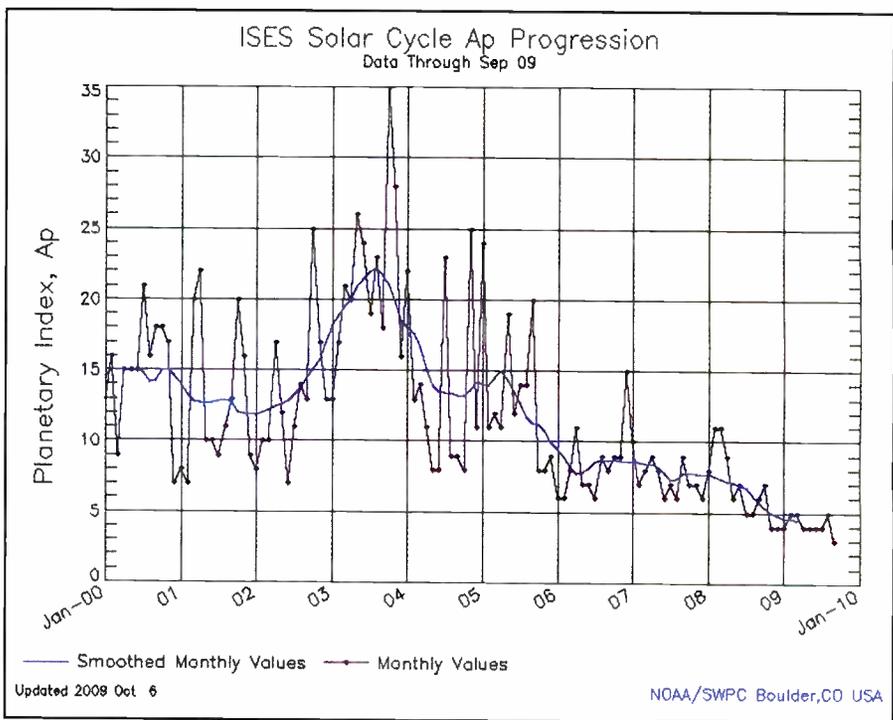


Figure 7. Geomagnetic activity during this solar cycle minimum between Sunspot Cycle 23 and Cycle 24 is the quietest on record. This graphic of the monthly planetary A-Index shows that, as of September, conditions continue to become ever quieter. However, with the recent rise in solar activity, as seen in October, this may soon change. (Source: NOAA / NWS Space Weather Prediction Center)

is anywhere from 10 to 500 or so miles. Mediumwave DX signals may travel farther, if the ground is highly conductive, providing a reflection of the signal back up into the ionosphere. Multiple hop skywave signals can enable a broadcast signal at night to span thousands of miles. It's typical to hear European and Asian stations over the salt water of the oceans.

There is a region between about 10 miles out to about 500 miles where both the groundwave and the skywave signals can be heard. This typically causes a cancellation of the radio waves when the two signals arrive out of phase. The listener will experience deep fades, sometimes slow, sometimes fast. Sometimes it's strong enough to cause severe distortion of the signal. Out beyond 500 miles, past the influence of groundwave signals, skywave signals also experience some fading and variations due to changes in the ionosphere.

Reception of mediumwave signals tends to be better in winter than in summer, due to lower levels of atmospheric noise and longer hours of darkness. During times of severe geomagnetic storms, when the planetary K index is above 4, auroral ionization can absorb the skywave mediumwave signals, causing any higher-latitude broadcast signals to

disappear, which would allow weaker mid- and low-latitude stations to be heard. At the same time, it has been observed that mid- and low-latitude skywave signals may be enhanced during these times because of ionospheric tilting and other phenomena. DXing of stations from south of the equator is often possible during highly active geomagnetic storms.

One of the most exciting aspects of mediumwave DXing is known as the "sunrise and sunset DXing window." The most fruitful period to reap distant mediumwave signals is from just before sunset to a few hours after sunset and again just before sunrise to a few hours afterward. The sunset skip period is particularly useful to DXers in the eastern part of North America, because stations in time zones farther west become audible after local daytime stations have stopped transmitting. Western DXers, on the other hand, have an advantage in being able to pick up many eastern stations as they begin their broadcast days in the morning.

Because of the seasonal decrease in geomagnetic activity during December and January, and because of the longer hours of darkness in the Northern Hemisphere, you'll find a rich selection of mediumwave AM signals from as far away as Europe, South America, Asia,

and even the South Pacific. Let me know your experiences.

VHF And Above

Don't forget to monitor the low VHF for DX TV signals (remember European TV uses AM for its audio, instead of FM), as there might be sporadic-E (E_s) openings once or twice this month. Again, please let me know if you catch one.

E_s activity can appear three to four days during January on the low VHF frequencies for stations in the Northern Hemisphere. The average opening may

last an hour or two with distances of up to 1000 km. A particularly good time to monitor for E_s activity is during the ARRL VHF Sweepstakes, which begins January 23 and ends January 25, 2010. A surprise one- or two-hour opening has been known to occur during the contest period in the past and this has led to increased multiplier counts for contest efforts. This contest is on the 50 MHz and higher amateur radio bands.

The Quantantids meteor shower is the major meteor shower for January, and it can appear any time during the first week of the month. This can sometimes be quite

intense, so it may be a good idea for setting up some 2- and 6-meter schedules. Morning meteor openings may be the best bet during this month.

Current Solar Cycle 24 Progress

The Royal Observatory of Belgium reports that the monthly mean observed sunspot number for September 2009 is 4.2, much higher than the zero of August, and the highest monthly recorded so far in 2009 and since the start of Cycle 24. The lowest daily sunspot value of zero (0) was recorded for September 2 through September 20. The highest daily sunspot count was 20 on September 23 and 24. The 12-month running smoothed sunspot number centered on March 2009 is 3.4. A smoothed sunspot count of 9, give or take about 7 points lower to 4 points higher, is expected for January 2010 (Figure 8).

The Dominion Radio Astrophysical Observatory at Penticton, BC, Canada, reports a 10.7-cm observed monthly mean solar flux of 70.4 for September 2009. The 12-month smoothed 10.7-cm flux centered on March 2009 is 69.0. The predicted smoothed 10.7-cm solar flux for January 2010 is 75, give or take about 6 points.

The observed monthly mean A_p index for September 2009 is 3. The 12-month smoothed A_p index centered on March 2009 is 4.5. Expect the overall geomagnetic activity to be mostly quiet, with occasional active periods during January.

I'd Like To Hear From You

Would you like to hear a weekly podcast about space weather and radio propagation? Check out <http://podcast.hfradio.org> for the "NW7US Space Weather and Radio Propagation Podcast," which I produce. Additionally, if you're on Facebook, check out the Radio Propagation and Space Weather Group at <http://tinyurl.com/fb-spacewx>. As usual, I invite you to visit my online propagation resource at <http://propagation.hfradio.org/>, where you can get the latest space data, forecasts, and more, all in an organized manner. If you have a cell phone with Internet capabilities, try <http://wap.hfradio.org/>.

Do you have a question that you'd like me to tackle in this column? Drop me an email or send me a letter, and I'll be sure to cover it. I'd love to hear any feedback you might have on what I have written.

Until next month, 73 de NW7US, Tomas Hood

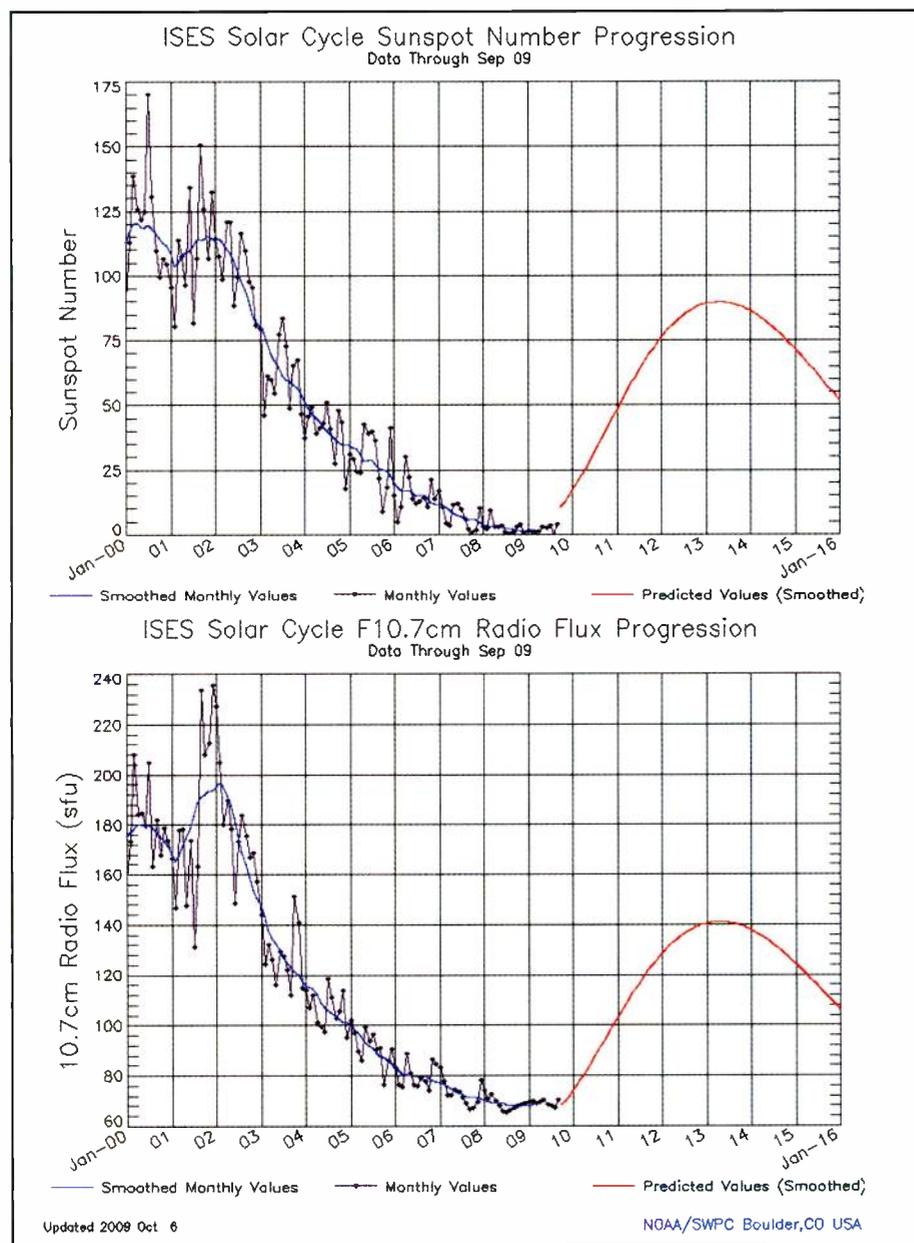


Figure 8. The progression of Solar Cycle 24. The upper graph shows the monthly smoothed and observed sunspot counts. The lower graph shows the monthly progression of the 10.7-cm flux. (Source: NOAA / NWS Space Weather Prediction Center)

A Look Back At The History Of CHU

by John Kasupski,
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While radio hobbyists generally like to stay on the cutting edge of technology and use radios, computers, and other electronic gear of the most modern variety, there are times when nostalgia and some respect for our roots dictates that we look back to the way things used to be.

Earlier this month, I received a large blue envelope from *Pop'Comm* reader George Baitzel of Newark, Delaware, containing some documents concerning the history during the 1950s of Canadian time station CHU, and upon inspecting what Mr. Baitzel had sent, I found myself confronted with exactly this kind of situation.

Mr. Baitzel had sent *Pop'Comm* a booklet from Canada's Department of Mines and Technical Surveys that contained a wealth of information on the operations of the Dominion Observatory Time Service, including photographs of two of the

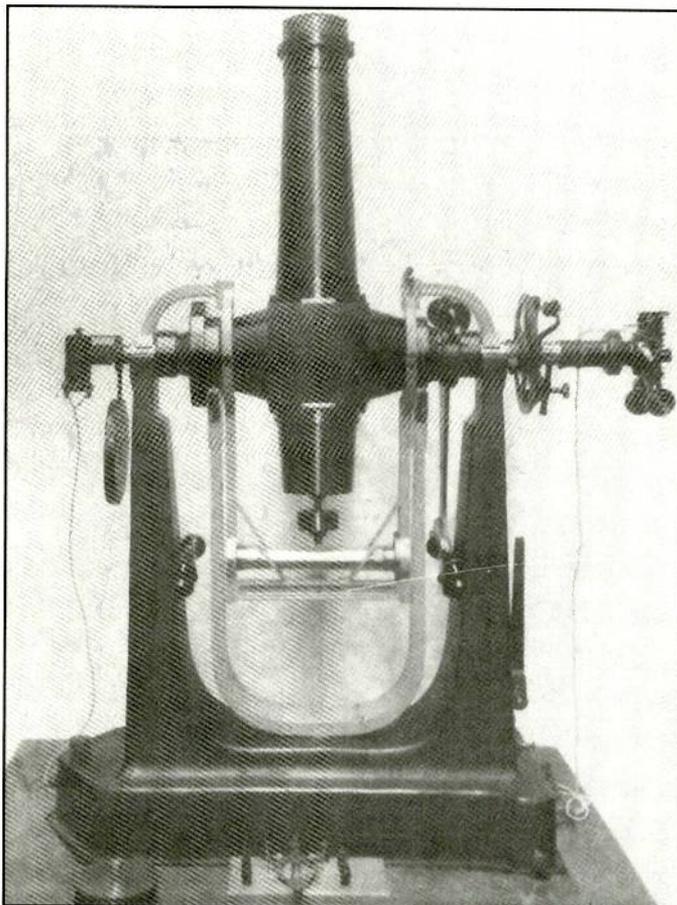


Photo A. Broken-Type Cooke Transit Telescope once used by CHU. (Dominion Observatory photo)

“Another key instrument in the Dominion Observatory’s arrangement was the time signal machine itself (Photo C), which was controlled by the observatory’s primary astronomical clock and used for distributing the time.”

important instruments associated with the service and an abstract on the operation of the service, reprinted from the journal of the Royal Astronomical Society of Canada and originally published therein in 1948. Also included were two original copies of a document from the Dominion Observatory, dated June 1953, dealing with the Dominion Observatory time signals and how to use them; a letter from G.C.W. Browne, Controller of Telecommunications for the Department of Transport Air Services telecommunications Division; and a letter from V.E. Hollinsworth II of the Dominion Observatory, written in February, 1954, in response to a letter that Mr. Baitzel had sent earlier that month asking for information about CHU.

Since the letter from the Dominion Observatory included permission for publication of the materials contained in this literature, I’ve taken the liberty of scanning two photographs from the booklet. The first (Photo A) shows the Broken-Type Cooke Transit Telescope, a small telescope with a three-inch objective and a focal length of three feet. To observe the period of rotation, this instrument would be trained on the stars as they crossed the meridian. The instrument incorporated a pair of movable wires that could be moved across the field of view to keep the star at the mid-point between the wires, and electrical impulses from the telescope as these micrometer wires were adjusted were recorded on a chronograph along with the clock beats from the master clock (Photo B). In this way, the movement of the stars could be used to determine the error of the master clock (a quartz crystal clock).

Another key instrument in the Dominion Observatory’s arrangement was the time signal machine itself (Photo C), which was controlled by the observatory’s primary astronomical clock and used for distributing the time. Designed by Dominion Astronomer Mr. R.M. Stewart and constructed in the Observatory machine shop,

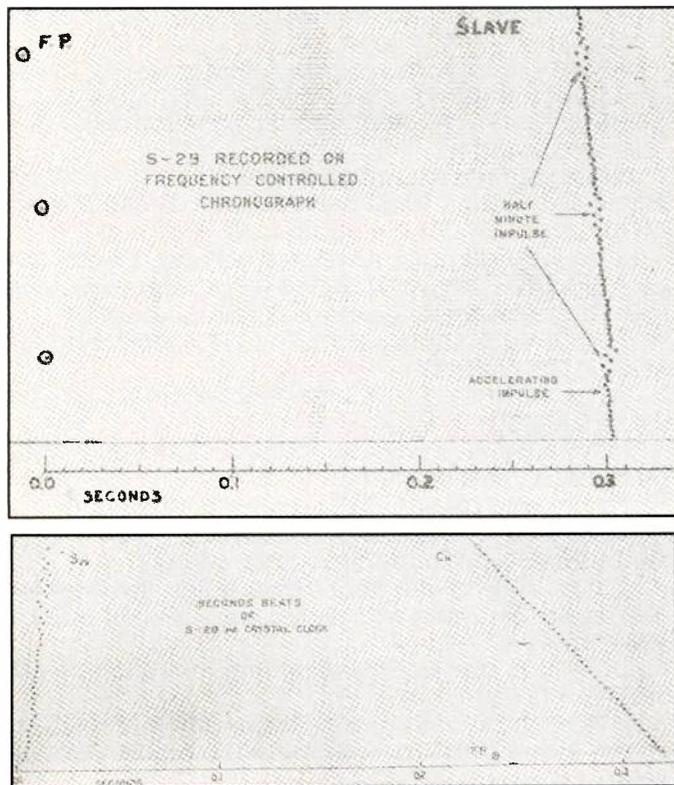


Photo B. Chronograph recording of electrical impulses from the instrument shown in previous photo. (Dominion Observatory photo)

there were two identical units of the time-signal machine, so that if one was in need of repair, the other could carry on. The time-signal machine was set into operation in 1938, and on August 28, 1941, the Dominion Observatory time was declared by the Canadian government to be the time to be used for official purposes in Canada. By that time, the radio transmitters had already been operating on three frequencies using the call-sign CHU and a power output of about 300 watts, identifying during the first minute of each hour by sending "CHU Canada CHU" in CW (Morse code).

Other radio transmissions for the benefit of mariners and people at northern outposts were also sent daily from CFH in Halifax on 111 kHz, VAA in Ottawa on 11990 kHz, and VAP in Churchill on 500 kHz. The Observatory also controlled, among other additional services of a local nature, some 800 clocks in 14 government buildings and the identification beats for seismic records. Furthermore, the Canadian Broadcasting Corporation (CBC) network of over 60 broadcast stations transmitted time signals daily on each of its stations at approximately 1300 hours eastern time (standard or daylight saving, according to whichever was in effect in Ottawa), sending seconds beats with a pitch of about 800 Hz starting at 12:59:20 and continuing to the hour.

The letter to Mr. Baitzel from V.E. Hollinsworth at the Dominion Observatory indicated that since the booklet was written, the power output of CHU had been increased to 3000 watts on 7335 kHz, with 300 watts on 3330 and 14670 kHz. The antennas indicated were non-directional dipoles, and the transmission modes specified were CW and modulated CW (MCW).

Modern CHU Operations

I won't go into a lot of detail concerning the modern-day operations of CHU, since I've covered the station in two previous

columns. Suffice to say that some changes have been made since the 1950s-era information contained in the material provided by Mr. Baitzel was current. Today, CHU is operated by the Institute for National Measurement Standards at the National Research Council of Canada. The station's time signals are now derived from three closely synchronized atomic clocks located at the transmitter site. The station still uses three frequencies—3330, the new 7850, and 14670 kHz—and the transmission mode is now USB single sideband with carrier re-inserted, allowing reception with an AM-only receiver. The announcements are made by a talking clock using digitally recorded voices. The electronics systems feeding the transmitters are duplicated for reliability and have both battery and generator protection (the generator can also supply the transmitters).

Finally, although this lies somewhat outside the realm of shortwave utility listening and will appeal more to AM broadcast band DXers living close enough to Canada to hear its broadcast stations even during daylight hours when D-layer absorption is a factor, both the English and French radio networks of the CBC still carry the time signal once per day; the former at 13:00 and the latter at 12:00 noon eastern time.

I'd like to express my deep appreciation to George Baitzel for fueling this look back at part of the history of what is probably Canada's most well-known time/frequency standard. I often say that without contributions from readers, this column would be a pretty sorry show indeed, and this month is a perfect example. Mr. Baitzel, many thanks and a tip of the "Utility Communications Digest" hat to you!

Readers Logs

It's now my privilege to turn things over to the readers of *Pop Comm* who, as always, have gifted us with another fine collection of utility station loggings this month. Needless to say, you are welcome and encouraged to join their ranks by sending in your loggings for inclusion in the column. The easiest way to do so is simply to email them to me at the address that appears at the beginning of this column.

That address has, incidentally, changed this month to reflect the change in my ham callsign, from the former KC2HMZ to the shiny, new W2PIO. So, the new email address is w2pio@verizon.net and if you'll send me a batch of your loggings, I'll see to it that you are immortalized in this space, just like those who kindly submitted logs this month: Allan Stern, Satellite Beach, FL (ALS); Mark Cleary, Charleston, South Carolina (MC/SC); Glenn Valenta, Lakewood, CO (GV/CO); Chris Gay, Lexington, KY; William Hassig, Mount Prospect, IL; and your columnist, John Kasupski, Tonawanda, NY (JK/NY).

3390.0: NNN0HVK (NC) and NNN0SKZ (NC) in USN/USMC MARS Region 4 4F3B Net in USB at 0013Z; NNN0RBC (TN) net control in USN/USMC MARS Region 4 4X9B Net in USB at 0102Z. (MC/SC)

3810.0: HD110A, Ecuadorian time station, poer/static, 1000 Hz beeps one per sec, time in SS every minute, in AM at 0804Z. (WH/IL)

4002.2: Unid PSK signal, drifted from 4002.0 since first observed, in PSK at 0312Z. (GV/CO)

4002.9: AAV4DJ (TN) in USA MARS Region 4 net in LSB at 0040Z. (MC/SC)

4013.5: USN/USMC MARS net in progress in USB at 0023Z. (MC/SC)

4020.9: US Army MARS net with AAA6REL(?) and AAA6OK in ragchew about old times and good band conditions, many other stations being called by AAA6OK, in USB at 0131Z. (GV/CO)

4026.9: AAV4TY net control with AAV4TT and AAV4VN in USA MARS Region 4 net in USB at 2300Z. (MC/SC)

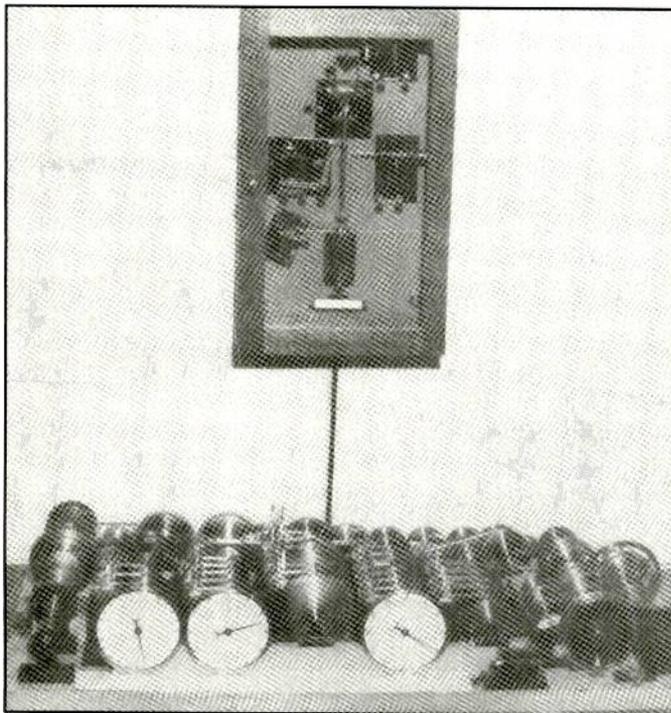


Photo C. Time signal machine used by CHU in the 1950s for distributing the time. (Dominion Observatory photo)

- 4032.9:** AAA3VA, AAM3IVA in USA MARS Region 3 net in LSB at 1119Z. (MC/SC)
- 4038.5:** MARS net w/NNN0AO (net control) calling NNN0TWA, in USB at 0135Z. (GV/CO)
- 4038.5:** NNN0GBS (SC), NNN0UTE, NNN0AAG in USN/USMC MARS South Carolina net in USB at 0027Z. (MC/SC)
- 4077.4:** MO hobby beacon in CW at 0527Z. (GV/CO)
- 4088.8:** Dasher hobby pirate beacon, LINK-11 signal underneath at times, in CW at 0531Z. (GV/CO)
- 4102.3:** W hobby beacon with wind speed in CW at 0138Z. (GV/CO)
- 4174.5:** Unid PSK signal about 75 hZ wide but no data, very similar to signal/mode noted on 4191.0 kHz which had data, in PSK at 0549Z. (GV/CO)
- 4191.0:** Unid PSK signal about 75 Hz wide, PSK63 partially decodes it, strong and steady here, in PSK at 0543Z. (GV/CO)
- 4200.0:** Unid 2 OM in Dutch in simplex QSO, both sides heard, buried under QRM from a LINK-11 signal at times, in USB at 0555Z. (GV/CO)
- 4206.5:** Unid PSK with short QSO between two stations; the preamble of the signal is a single carrier before data is sent, overlapping signals, in PSK at 0331Z. (GV/CO)
- 4207.0:** Unid station sending PSK or ARQ signal 100 Hz wide in short bursts, in unid digital mode at 0352Z. (GV/CO)
- 4324.0:** Unid station with encrypted text in 50/850 RTTY at 0604Z. (GV/CO)
- 4372.0:** DELTA, FOXTROT, and NOVEMBER in Link-11 coordination net in USB at 1150Z. (MC/SC)
- 4457.5:** Unid PSK, 75 Hz wide, much like the signal noted on 4191.0 kHz but undecodable, in PSK at 0609Z. (GV/CO)
- 4500.0:** AFF4FL (FL) net control with AFA4RA, AFA4BL (FL), AFA4LQ (FL), AFA4HR in USAF MARS Region 4 FLS2 Florida Net in USB at 2303Z. (MC/SC)
- 4623.5:** NNN0BCI (VA), NNN0FNO (VA), NNN0XMMT, NNN0XZQT in USN/USMC MARS 3B1B Virginia Net in USB at 2314Z. (MC/SC)
- 4740.0:** Unid station with whale-sound feedback, then narrow repeating sweeps for about 5 minutes, then into what sounds like Harris

AVS including the start tones; S9+20 here, in mixed modes at 0616Z. (GV/CO)

5102.5: Unid numbers station sending 5-figure groups using cut zero, possibly part of BALTOPS exercise, in CW at 1245Z. (CG/KY)

5505.0: Shannon VOLMET, synth YL/EE with aviation WX in USB at 1755Z. (CG/KY)

5696.0: USCG CAMSLANT working CG2102 (HU-25D, CGAS-Miami); IDs as CGAS Miami bird with 6 POB, in USB at 0003Z. (ALS)

6739.0: HF-GCS station ANDREWS w/28-char. EAM 6TIINO etc., simulcast on at least 8992 and 13200 with nothing heard on the other HF-GCS primary frequencies, in USB at 2346Z. (JK/NY)

6855.0: Enigma V2A numbers station, YL/SS with 5-fig groups, in AM at 2125Z. (CG/KY)

7457.0: AFA4DG (FL) in USAF MARS Region 4 Net in USB at 1307Z. (MC/SC)

7630.5: AFA5NF, alternate net control in USAF MARS NE1S1 net in USB at 1303Z. (MC/SC)

7911.5: Unid 2 OM/SS in QSO in USB at 0339Z. (GV/CO)

8156.0: C6WC, ops report to CORAL HARBOUR BASE (Royal Bahamas Defence Forces) in USB at 1131Z. (MC/SC)

8281.0: Unid group of several fishermen in Spanish with overlapping simplex QSO, much whistling and yelling, in USB at 0315Z. (GV/CO)

8383.0: Unid 2 OM in QSO in strangely accented Spanish, in USB at 0355Z. (GV/CO)

8770.5: Unid 2 OM/SS in simplex QSO in USB at 0308Z. (GV/CO)

8792.0: Unid 1 OM 1 YL in simplex QSO in Spanish, drifting +/- 200 Hz, in USB at 0310Z. (GV/CO)

8918.0: New York Radio advises American 1385 she is approved for 6.0 mile west deviation from course, but requested altitude not approved due to traffic, in USB at 1456Z; NY advises Continental 471 he is approved for 10 mile right deviation from course, but must be back on course by 1525Z, in USB at 1503Z. (CG/KY)

8971.0: DRAGON 21 (P-3C) working GOLDENHAWK (USN TSC, I am not certain if GOLDENHAWK is still at Brunswick NAS or has moved to Jacksonville NAS); switches to green (encrypted), back to clear, back to green, in USB at 1539Z. (ALS)

8971.0: FIDDLE, 71F and 71G in voice and data comms in USB at 2100Z. (CG/KY)

8983.0: USCG CAMSLANT working CG2129 (HU-25C+, CGAS Cape Cod); passes position as 42-04 North, 72-37 West, in USB at 0006Z. (ALS)

8983.0: CG2003 via HF-GCS ground station, phone patch to parent command regarding aircraft itinerary, in USB at 2227Z. (JK/NY)

8983.0: USCG CAMSLANT with relay to SWORDFISH 14 (HU-25, CGAS Miami) in USB at 1345Z. (MC/SC)

9007.0: CANFORCE 85 wkg TRENTON MILITARY, reporting departure en route Eureka, in USB at 1339Z. (MC/SC)

10051.0: Gander VOLMET w/aviation WX, strong here, also heard on parallel 6604.0 (weak), in USB at 2252Z. (JK/NY)

10202.0: WGY9441 sounding in ALE USB at 1754Z. (MC/SC)

11175.0: HF-GCS Station ANDREWS working TUFF 21 (B-52H, Barksdale AFB) for phone patch to Barksdale Metro in USB at 1634Z; DRAGON 21 (P-3C) calling MAINSAIL with no joy in USB at 1745Z. (ALS)

11175.0: ANDREWS recites 28-character EAM 6T3JJV etc. in USB at 1625Z; REACH 288 receives radio check from unknown station responding to his call to MAINSAIL, in USB at 1634Z. (ALS)

11175.0: HF-GCS station OFFUTT working ADOBE 28, relayed message concerning ETA, in USB at 1907Z; REACH 211 via Lajes, phone patch for WX info in USB at 1310Z. (CG/KY)

11175.0: Lajes working 6HR, who wanted phone patch, but never completed due to poor conditions, in USB at 1245Z. (CG/KY)

12350.0: Unid duplex phone patch, mostly in Spanish, in USB at 2306Z. (GV/CO)

12788.0: NMG (USCG New Orleans) with WX FAX, at decent levels here but not heard on parallel freqs, in FAX at 2048Z. (JK/NY)

13089.0: NMC (Pt. Reyes), USCG WX BC, synth OM w/forecasts

and warning for TS Patricia in USB at 2247Z. (JK/NY)

13151.5: Unid QSO in Spanish on WLO frequency, both sides heard, not phone patch, in USB at 2142Z. (GV/CO)

13927.0: USAF MARS Operator working unknown aircraft for M&W phone patches to an Arkansas area code, then to a Georgia area code, very muffled sound of a masked pilot's voice, in USB at 1423Z. (ALS)

13927.0: USAF MARS Operator AFA5QW (Greenwood, IN) working CHALICE (E-3 AWACS, Tinker AFB) for phone patch regarding aircraft problem; they go through checklist, in USB at 1810Z. (ALS)

13927.0: USAF MARS Operator AFA5RS (Shelbyville, IN) working JESSE 94 (C-130H #86-1394, MO-ANG 139AW, over SW Lake Erie) for DSN phone patch to Rosecrans A/P JESSE OPS, passes 1625L/2125Z ETA, then makes M&W phone patch, in USB at 1923Z. (ALS)

13927.0: AFA5RS working ANVIL 98 (C-130H, WV-ANG 130AW, Yeager Airport, Charleston, WV) for DSN phone patch to WV-ANG Base Ops at Yeager A/P re: ETA in about two hours; in USB at 1941Z. (ALS)

13927.0: USAFMARS Operator AFA3CU (Chesapeake, VA) working NATO 16 (CT-49A [E-3 Trainer] #LX-N19997, Geilenkirchen, Germany, at position 41N 62W) for phone patch to Navy Norfolk ATOC, reports ETA 2015Z; requests fuel on arrival; passed VHF frequency 130.65, in USB at 1834Z. (ALS)

13927.0: USAF MARS Operator AFA9PF (Los Angeles) working TORCH 55 (C-130H, IL-ANG, Peoria IL), requests TORCH 55 QSY to frequency 7633.5 and call for AFA5QW there, in USB at 1544Z. (ALS)

13927.0: AFA5QW working HAWK 22 (B-1B, Dyess AFB) for phone patch re: 1700Z ETA, in USB at 1519Z; USAF MARS Operator AFA9AY (California) working KING 70 (C-130, Patrick AFB 39RQS) for radio check on two transmitters, in USB at 1830Z. (ALS)

13927.0: AFA9PF working REACH 581 over Colombia; AFA9PF loses contact, in USB at 1537Z; AFA5RS, AFA5QW, and AFA9PF all attempt to work (but are unable to hear) REACH 581; All parties, including REACH 581, clear into my QTH, in USB at 1545Z. (ALS)

13927.0: AFA9PF working OPEC 78 (KC-10A, McGuire AFB) for radio checks on two radios in USB at 1642Z. (ALS)

13927.0: AFA9PF working TUFF 24 (B-52H, Barksdale AFB) for DSN phone patch to Barksdale Metro for Barksdale weather in USB at 1856Z; TUFF 02 (B-52H, Barksdale AFB, near Tullahoma) calls "Any MARS Station" with no joy in USB at 0044Z. (ALS)

13927.0: USAFMARS Operator AFA5AD working REACH 424 for phone patch in USB at 1853Z; 13927 kHz USB 1900Z: USAF MARS Operator AFA5RS working REACH 424 for phone patch in USB at 1900Z. (ALS)

13927.0: USAF MARS Operator

AFA6DD (Texas) working OPEC 77 (KC-10A, McGuire AFB) for DSN phone patch to McGuire Metro in USB at 2022Z. (ALS)

13927.0: USAF MARS Operator AFAIRE (Maine) working SAMURAI 12 (over Reno, NV) for M&W phone patch to Kansas area code in USB at 2155Z; AFAIRE working SEMINOLE 22 for M&W phone patch to Georgia area code in USB at 2205Z. (ALS)

13927.0: USAF MARS Operator working REACH 5002 (C-5 #85-0002, approaching Long Island, NY) for M&W phone patch in USB at 2343Z; AFA9PF working BOLT 33 (KC-135R, MacDill AFB 6AMW, over Texas)

for M&W patch in USB at 1808Z. (ALS)

14670.0: CHU: Ottawa time station w/voice announcements in EE and FF, in USB at 2211Z. (GV/CO)

16225.5: Unid 2 OM/RR in QSO, both parties heard, switched to SS for conclusion then out, in USB at 2151Z. (GV/CO)

16550.0: Unid OM in Tagalog, very strong signal, in USB at 2137Z. (GV/CO)

16554.5: Unid (suspected Japanese) 8/16 tone PSK modem, strong and steady here, in PSK at 2142Z. (GV/CO)

16969.5: Tokyo, Japan meteo FAX, poor signal here, in FAX at 2117Z. (GV/CO)

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Starting Out In Radio And Life: 40 Years Ago

by Shannon Huniwell
melodyfm@yahoo.com

"[Harry] Chapin engaged [WMEX DJ] Connors in a frank discussion about life and its ironic disappointments, and the heartfelt conversation led to the songwriter penning the radio classic W-O-L-D in 1973."

Editor's Note: This "Shannon" column was originally scheduled for December, but a full issue that month led to its being "bumped" till now (hence the "40 years ago" minor time warp). Still, I'm sure you join me in wishing her many happy returns, belatedly.

A close friend cried from breakfast until bedtime the day she turned 40. Lisa was inconsolable because she couldn't quite come to terms with how those four decades had gone by her so quickly. She'd been quite popular in high school, but since graduation Lisa found it increasingly difficult to navigate in a world that didn't conform to the idyllic teenaged view of our cookie-cutter hometown, circa Spring 1987—let alone 1969, the year most of us in that senior class were born and the springboard of our story.

As a newly minted 40-year old myself, I'm just thankful to the Good Lord for allowing me to reach that mark, and look forward to reminiscing about the "good old days" of 2009. That, however, is not to say that I don't like to contemplate the past. On the occasion of my recent milestone, I especially enjoyed perusing a little 1969 "Remember When" nostalgia booklet given to me by another friend who figured I'd get a kick out of glimpsing an economic slice of how things were when I arrived on the scene during the closing months of the 1960s. My folks also smiled to see 1969 statistics that reminded them of new car prices in the \$2,000 to \$3,000 range, gasoline for 32 cents a gallon, a loaf of bread at 23 cents, and a brand new 1,200-square-foot ranch homes with a now-unbelievable \$35,000 price tag.

"But you have to put those 'bargain' prices in perspective," my Dad said, "A decent yearly salary back then was only \$7,000." He recalled feeling wasteful back in those days when he'd mail a small stack of broadcast band DX reception reports in the hopes of adding to his QSL collection, saying

Your brother was in kindergarten, outgrowing clothes almost monthly and honing his *please can you buy me such-and-such a toy* skills. Mom and I were trying to save every nickel for a home of our own with three bedrooms because you were on the way.

Including return postage, each of my "DX hobby letters" meant two envelopes *plus* 12 cents worth of stamps. That doesn't seem like much today, but when I sent 10 reports, it cost \$1.20 or nearly four gallons of gas, more than enough to drive our '65 Ford Falcon convertible the few miles to and from work for a week!"

The next time my father and mother came to visit, Dad brought his three-ring binder bulging with QSL cards, verification letters, station-related matchbook covers, and sundry broadcast promotional items. We studied the dates and found



My QSL collector Dad says this card from Fostoria, Ohio's WFOB is one of his favorites. An artist's rendering of the studio/transmitter facility is accessed by a charming little bridge leading from the land of the listener to the station's home turf on which three towers stand proudly. Those sticks were phased to provide separate 1000-watt directional patterns day and night at 1430 kc. Records show that, circa 1969, WFOB provided programming for its 3-kW (on 96.7 mc) sister, WFOB-FM, 95 percent of the broadcast schedule, a simulcast rate not uncommon in rural America prior to the 1980s. It's interesting to note that WFOB-FM beat the AM side to the airwaves by some six years. The FM side debuted in December 1946 (at 105.5 mc with 450 watts) and WFOB joined her during December of 1952. Check out WFOB's cute little owl logo noting the AM/FM combo as Northwest Ohio's most powerful independent station(s). On the other side of the card is some handwriting that made me smile on my 40th birthday: the WFOB DJ who penned the note in October 1969 to my DXer Dad exclaimed, "Congrats on your new daughter!"

several from the early hours of October 2, 1969—my birthday. “Don’t think I was ignoring your mother,” he pointed out. “I couldn’t sleep knowing she was ready to pop, so I kept asking her if everything was alright. She said she’d be much better if I’d stop fidgeting and calm down a bit.” According to Mom, that’s when she suggested Dad adjourn to their dinky second-floor apartment’s breakfast nook where he parked his 12-transistor AM portable (hooked to a longwire running from the little window there to a decommissioned powerline insulator on the house next door) and relax with the headphones on. “Anyway,” Dad said, “I caught these stations just before your mom emerged from our bedroom with that same ‘It’s time’ look she gave me just minutes before your brother Shawn made his surprisingly rapid debut.”

While my parents amused themselves with some other arcane memories of the event, and Mom wistfully compared her cherished 1960s weeklong maternity ward hospital stay with today’s “drive-thru” baby delivery experience for modern mothers, I found myself focusing on Dad’s fall of 1969 QSLs. I couldn’t help wondering what the radio scene was like for those just entering the business during the time when I was born.

Radio 1969: Opportunity In Overdrive

Forty years ago, the FCC required every broadcast radio station to present news in addition to entertainment or whatever constituted the outlet’s main program format. In retrospect, that was a pretty civic-minded regulation, as it meant that every radio listener—even teenagers!—would be exposed to at least a few minutes of what was going on in the community and world. In addition to making for a more informed public, the mandate also created the need for at least one news person at each station, with the exception of some FMs that shared an electronic journalist with a co-owned AM.

Imagine the proverbial 250-watt daytimer serving a town of 7,000 somewhere in rural America with, say, a 22-year-old news director only six months out of the nearby State University. Unless he (and back then the news directorship was almost exclusively a male position) was a hometown boy with deep local roots, this ND was likely working hard to offer informative newscasts and recording them in the hopes of putting together a solid aircheck tape that could land him at some 5-kW full time AM’s newsroom in a bigger market. From there he’d aspire to an even better-known set of call letters in Denver, Pittsburgh, Cincinnati, Seattle, suburban Chicago, or maybe even New York. Similar “farm team”-type opportunities existed on radio’s entertainment side.

Neither satellite program delivery nor voice-tracking were factors in 1969, so pretty much every minute of radio programming was live (or records being spun by someone on site) and needed a real person to generate. To be sure, there were rudimentary automation systems in the late ‘60s, often the province of an AM’s co-located fledgling FM sister. Even these “unmanned” operations, though, needed somebody in-house to record (on tape cartridges) news and weather. With strict prohibitions against any one entity owning more than a single AM and FM in any given market, there were lots of broadcast licensees competing for news people, engineers, and on-air personalities, too.

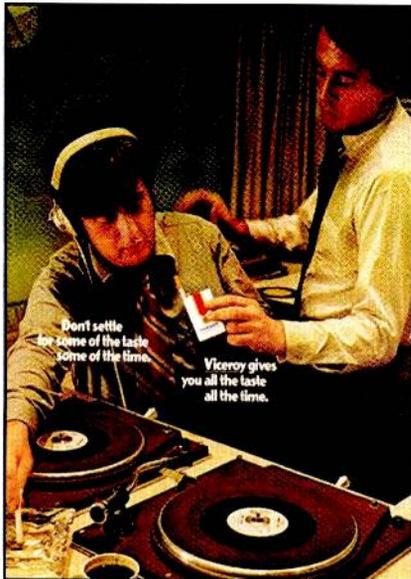
One of my father’s friends started a broadcast career in May 1969. As the story goes, he was on his way from college graduation to a disc jockey job at a one-horse station in the middle of Maine. His service (albeit quite novice) was needed because



Because we’re focusing on 1969, I reached for that year’s *Broadcasting Yearbook* to get stats on the sharp-looking little Atlantic, Iowa, station depicted here. The listing says KJAN began sending out its 250 watts on 1220 kc in September 1950. By 1966, she was sister to a sizable sibling, KJAN-FM with 26-kW horizontal polarization (3-kW vertical) on 103.7 mc. This was soon upgraded to a full 100,000-watt stereo facility with circular antenna polarization, arguably signaling that the FM steered KJAN’s ship. I really like those clean white call letters standing in the ornamental shrubbery! Imagine how that sight, along with the big tower, small stick, and patriotic flagpole guarding the efficient brick and glass studio/transmitter building must have screamed “R-A-D-I-O!!!” to a fledgling announcer heading into the station’s parking lot right before his airshift. The shorter tower (likely a couple of sections of Rohn 25-G) holding the TV antenna? My guess is that it had something to do with a television set in the KJAN newsroom or was maybe pulling in FM waves for the KJAN-FM modulation monitor.

the airshift had been vacated by a fellow who after a four-month tenure at the tiny Pine Tree State AM, got hired away for late nights in Burlington, Vermont. Anyway, Dad’s buddy stopped at a station in Fitchburg, Massachusetts, where his former roommate held the evening DJ slot. It turned out that guy had just taken an afternoon drive-time position in Manchester, New Hampshire. Desperate to fill the sudden opening, the Fitchburg program director quickly auditioned the new grad and offered him the gig. He accepted with the proviso that his new boss let him phone a former classmate thinking of getting into radio. That call resulted in the rural Maine station debuting a *different* new announcer. Dad reports this lineup had completely changed by 1970 when everybody involved was at a larger station. And of course, that opened up the little Maine DJ shift for yet another newcomer.

Where did broadcast pros and radio wannabees find out where opportunities were happening? *Broadcasting Magazine* used to be the source of classified advertising for those seeking radio work or trying to entice such personnel to join their happy staff. I want to share with you some examples I found of the match-making that provided a steady stream of on-air talent for the 4,235 AM and 1,917 commercial FM stations authorized by the FCC as of early 1969. The publication’s October 6, 1969 issue contained 25 Help Wanted: Announcers ads and 38 Situations



"If it weren't for the tobacco and coffee industries," a puffing, constant caffeine consuming radio guy once quipped while Dad and I visited his studio, "the broadcasting business would come to a screeching halt!" Except for the fact that these "model" DJs are dressed like Washington lawyers, the coffee and cigarette theme in their station's master control room is pretty authentic for just about any commercial radio studio circa 1969. In fact, more than a few once-bright-white soundproof studio tiles lost their luster to the ravages of smoke and nicotine.

a DJ hopeful branded himself as proficient in that avenue, it conveyed that he could keep the records, taped commercials, jingles, and live patter moving without any dead air between those programming elements. To tout one's ability to run a "tight board" was pretty much archaic in 1969 if the applicant was pitching medium or major market operations; facilities typically already adept at executing a bright/up-tempo contemporary format. For the hundreds of small town stations looking to modernize their sound, however, the description carried a promise similar to a love letter from a mail order bride to some lonely prairie farmer.

"A Hundred And Change Ought To Do It Up Nicely"

When the doorbell chimed, I was listening to an old aircheck that my father rescued long ago from the production room trash can at a now-defunct Connecticut AM. Upon returning to my vintage Revox reel-to-reel machine, I found the tape still rolling along at 7.5 inches per second, though silently approaching its final 50 feet or so. Had the UPS lady not interrupted me, the aircheck would have been shut-off moments after the last telescoped hit single faded into oblivion. In fact, my fingers were reaching for the Revox "stop" button when the voice of somebody with the obvious radio pseudonym, Chuck Morgan, filled the speakers.

"Hello there Mr. Mike McCoy. This is Chuck Morgan...or *Chucker* Morgan, as my legion of devoted fans calls me. Ha, ha, ha!" The words seemed to be enunciated about an octave lower than the guy's natural delivery and were issued much more deliberately than those of his faux frantic Top-40 pace on the aircheck. No doubt, McCoy, the intended recipient, was the station's program director (with an equally sanitized fake air name) at the time the tape was addressed. Apparently, however, somebody else occupied the PD chair when the 5-inch audition reel's cardboard mailer was finally opened.

"Knew the former PD? Sounds like a puker" was scribbled in black grease pencil on the box. "Puker" was circa 1970 radio vernacular for any announcer who sounded like he was *trying* to sound like he was on the radio. Early returns from the Woodstock experience pointed towards a trend in radio personalities needing to come across as "more real" or one-on-one communicators as opposed to the "Hey there, everybody out there in

Wanted classifieds placed by job hunters. We'll begin with the stations' pleas:

We need a young guy, preferably unmarried, for an all-night show. We're looking for someone to be a top innovator with eyes for better things. If the shoe fits, send tapes and resume to Jeff Kaye, WKBW Radio 1430 Main St. Buffalo, NY. Hurry!

Country Music DJ with personality and 1st Phone only. Great chance to grow in a top 10 market. \$110 [weekly] plus sales at 20% [commission] to start. Call now: PD Earle Trigg. (703) 437-6620. NO COLLECT CALLS.

Announcer: KSOX in Lower Rio Grande Valley. Raymondville, Texas. Send tape to E.L. Clinton.

Midwest 10kW station located in college town has opening for DJ with 1st Phone. No maintenance.

First ticket DeeJay. No maintenance. One of our guys is moving up with our blessings. Tape & resume and references to Bill Sullivan. WAHT Radio Lebanon, PA.

Immediate opening for an experienced, stable Top-40 personality strong on production. Good money for a qualified man looking for a permanent home. Send T&R.

Bright capable, experienced deejay wanted by midwest full-time kilowatt with upbeat MOR [middle of the road music] format. Some news gathering and writing experience helpful. Top pay for proven ability, liberal fringe benefits. Include detailed experience, photo, references in resume, and tape.

Did you notice the one radio station that wanted photos of their applicants? That was not uncommon. That request would never pass muster with anti-discrimination regulations today, but radio managers back in 1969 wanted to be sure their new hires wouldn't scare away listeners at a live remote event.

Legendary Top-40 powerhouse, WKBW figured a single overnight guy

would be better than somebody whose wife kept him up all day. And the "no maintenance" promise of a couple of the sample AMs was there to assure announcer hopefuls who crammed to pass their FCC First Class license exam that it was OK to have forgotten everything they memorized for the test. In 1969, the Commission required high-powered (10 kW or greater) or directional stations to have a "1st Phone" engineer on duty at all times. Consequently, even a DJ with a "fake first" ticket could run such a station solo at night when the regular engineer was off duty, but on call.

Dreaming of being on the job, some wishful announcing applicants of early October 1969 cast their nets as follows:

DJ, tight board. Good news, commercials. 3rd Phone.

Good beginner. Professionally trained. Draft exempt. Will relocate.

I'm young and exciting. I'll do all types of music. Tight board. Broadcasting school grad with some experience.

Disc Jockey with wide range of radio experience. Married. Tight board. 3rd Phone. Draft exempt.

Having a "3rd Phone" was a way of noting that one possessed the entry-level FCC authorization (the mighty Third Class Radiotelephone Permit) to operate a small FM or non-directional AM station without any other engineer on site. The "married" and "draft exempt" qualifications telegraphed that an applicant was mature, stable, and not on his way to Vietnam. "Professionally trained" is a euphemism for "I took a six-month broadcasting course at some school where, if you paid the tuition, you passed."

Other Key terminology in these classifieds is the phrase, "Tight Board." When

radioland!" polyester disc jockeys of music radio's circa 1960 incarnation.

In any event, during this aircheck version of voice-mail, Chuck Morgan reminded McCoy that they both knew another DJ (known by various names including Brian B. Britain and J. Robert Dark) who'd crossed paths with each of them at different small market stations before hitting it big by securing an overnight weekend spot at WMEX in Boston. Chuck Morgan then told McCoy (who never actually heard the message) that he was getting married. "with a kid on the way *don'tcha* know," and was "really looking to settle down" even if the station had already filled the 7 p.m. to 12 a.m. slot he'd heard through the grapevine had been advertised in *Broadcasting*. "I'd be willing to handle the all-night shift and could even do a little tidying up around the station in the wee hours," he mentioned along with a willingness to sell a bit of advertising, though admitting that wasn't his thing. "As far as bread goes," Chucker bargained as coolly as his evident desperation allowed, "a hundred and a quarter a week would be neat...Well, uh, come to think of it," you could hear him reconsider with a nervous chuckle, "a hundred and change ought to do it up nicely."

Whoever Chucker Morgan actually was and no matter that he radiated a dime-a-dozen Top-40 radio announcer persona, it's quite plausible to predict that he did find a new 1969 broadcast home among America's 6,100-and-change commercial broadcast facilities...and perhaps even successfully negotiated the \$125 weekly pay to support his instant family.

Historical Radio Lyrics

In 1969, radio pro Jim Connors was earning more than Chucker Morgan ever asked for. Connors had begun his air-personality journey on Armed Forces Radio and, after leaving the service, became popular at Erie, Pennsylvania's 1000-watt days/250-watt nights WJET. There he developed a second sense for predicting hit records. His successes opened opportunities to move to larger stations in bigger places. While helming the morning show at WMEX Boston, Connors auditioned Harry Chapin's now legendary story song *Taxi* and promoted it on his program. Soon it was not only big in Bean Town, but Connors' talking it up with other DJs caused *Taxi* to be aired with similar positive results across North America.

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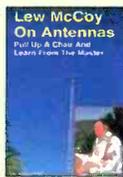
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Another shred of local broadcast memorabilia from my father's treasures, this unstruck matchbook cover apparently arrived at the Huniwell household neatly stapled to a verification letter. That's because Dad always politely hinted to whomever would be in charge of doling out "veries" that he "would sure be honored to display something from the station's culture in his radio museum." Anyway, this promo—among the most popular of such publicity items during the era when at least a third of Americans smoked—depicts the remote studio of WCBG in Chambersburg, Pennsylvania. Born in 1956 as a 5000-watt daytimer, a company called Four States Broadcasting owned the 5 kW-days, 1 kW-nights facility on 1590 kc when it was listed in the 1969 *Broadcasting Yearbook*. How about that cute little satellite-around-the-Earth graphic on the lower front corner of the station's on-the-spot-coverage trailer, dubbed Satellite #1? Obviously a bit of a stretch, signal-wise, but whomever designed WCBG's home away from home certainly was successful in transforming a little box on wheels into something that would nicely represent radio's immediacy and excitement.

Chapin actually happened to drop in on Connors in the WMEX air studio when the DJ was talking to his ex-wife on the phone while some 45-rpm record allowed him a couple of minutes to see if she had any interest in getting back together. Chapin immediately perceived Connors' desperation, the longing to see his children, and regrets regarding relationship wreckage—all sharp contrasts to Connors' "bright, good-morning voice that's heard but never seen." Chapin engaged Connors in a frank discussion about life and its ironic disappointments, and the heartfelt conversation led to the songwriter penning the radio classic W-O-L-D in 1973. Both men subsequently died in auto accidents and it's unclear whether Chapin was quoting Connors verbatim when he sang, "Sometimes I get this crazy dream that I just take off in my car. But you can travel on ten-thousand miles and still stay where you are."

Similar sentiment about moving again and again in order to feel centered was

later expressed in a comical fashion when a TV sitcom portrayed the exploits of a group of Top-40 radio gypsies trying to find a home at an also-ran station in Ohio. The opening theme's lyrics were aimed at an ex-wife or perhaps former serious girlfriend when they offered, "Baby, if you ever wondered...Wondered whatever became of me, I'm living on the air in Cincinnati, Cincinnati, WKRP." The song's second stanza alluded to the dynamics of the average radio person's career path, a seemingly exciting trajectory that eventually ends up being at cross purposes with putting down roots: "Got kind of tired packing and unpacking, Town to town and up and down the dial. Maybe you and me were never meant to be, But baby think of me once in awhile. I'm at WKRP in Cincinnati."

Devotees of WKRP will remember seeing the station's coverage map framed in the lobby. *5000 watts - 1430 AM* it said at the top of the poster. AM was still king when *WKRP* hit TV in 1978, but it only

had a couple more years of ratings dominance over its former weaker sister, FM. Another pop tune, this one recorded in 2000 by the group Everclear, serves as a fitting ode to our "radio of 1969" topic. To be more accurate, Everclear's AM Radio was set a year later. The group's lead singer intones "The VCR and the DVD, there wasn't none of that crap back in 1970. We didn't know about a World Wide Web, it was a whole different game being played back when I was a kid. Wanna get down in a cool way. Picture yourself on a beautiful day. Big bell bottoms and groovy long hair. Just walkin' in style with a portable CD player. No, you would listen to the music on the AM radio... Yeah, you could hear the music on a AM radio."

Do You Ever Miss Being On The Radio?

One of the QSL cards netted by my father while he nervously waited Mom's October 2, 1969, baby alert, came from a 1000-watter in Ohio. Along with filling in the usual vital statistics related to transmitter power and antenna patterns, the person who verified Dad's report scribbled a few lines of gratitude. "Mr. Huniwell, thanks for being my first attentive listener," wrote the verifier. "Believe or not, I'm very new to radio. In fact when you happened to dial WFOB shortly past midnight, you heard me the very first time I ever opened the mike here. Sure hope I didn't sound too nervous!" When writing his reception report Dad apparently had included word of my birth, as the cub DJ closed with, "Congrats on your new daughter!"

The price of stamps didn't prevent my father from making an occasional pen pal of the WFOB announcer. Dad tells me that he once visited the fellow at the station while on a business trip in northwestern Ohio. For several years, they corresponded every few months, always to talk radio and whether or not an offer to take a gig at a station in a somewhat bigger city would be a good move.

I was surprised to hear that, after four decades, they still exchange Christmas cards. The brightly colored Hallmark from last December didn't have much of a message from the former WFOB guy other than to wish my parents Season's Greetings and note a new email address. It was my key to contacting him for what proved to be some closing context for this article. In his kind reply to my email, he

couldn't believe how fast the time passed since he sent my Dad that QSL with kudos about a new daughter...who has now turned 40.

WFOB had only been his initial stop in a string of five stations that took him to an FM in the Detroit market. His wife, though, yearned to return to Ohio, so he took a PD post at a smaller operation about 30 miles from her folks. When that AM was sold and changed format, he found himself commuting 90 minutes each way to a station in Indiana where he never felt much at home. I knew he'd left broadcasting and wondered how it affected him. I asked him "Do you ever miss your radio days?" and he responded thoughtfully:

My career on the air lasted only nine years. They flew by and were mostly lots of fun. I met my wife when she worked at a store where I did weekly remote broadcasts and immediately drafted her to draw names for our goofy little promotional contests. Shortly after our whirlwind courtship and wedding, though, I quickly discovered that the radio business is certainly not insulated from change. That seems like an exaggerated thing to say about the late 1960s and 1970s, times which have since gotten romanticized as having been so naively idyllic.

About the time the television show *WKRP* arrived, I began to worry that I'd turn out like its constantly misfit characters who became less and less relevant. I'd been at it less than one decade and had already peaked. The Indiana station—my final stop—was just a job, and one that I could vividly imagine evaporating without much concern from my employers. That's when I took my parents' advice and became a school teacher, a profession with lots more stability and a retirement plan.

I had my farewell all scripted out so it'd segue nicely with the Carpenters' melancholy single *Goodbye to Love*. During the final minute of the record, I caught myself starting to cry. And now sometimes, for no apparent reason, I'll find an old Top-40 aircheck on the Internet or drift into an unplanned hour playing greatest hits CDs of those songs I used to spin so routinely in 1969. I suppose that's when I truly start to miss being the guy on the radio. But, no, I don't miss radio as it is now, instead, I long for radio the way it was, the way it felt to be a part of broadcasting and part of my audience's lives, the way it all sounded so exciting in the headphones when the studio "on-air" light went on...More than anything else, I miss the ways that even the most seemingly insignificant AM or FM stations were so important to ordinary people 40 years ago.

And so ends another day of broadcast history at *Pop*Comm*...

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How To Get (And Keep) An HPJIE*

by Bill Price, N3AVY
chrodoc@gmail.com

“If your new boss has a ham license, it’s wise not to let on that yours is a higher class than his.”

I’m often asked by fans I meet on the street (yeah, **that** happens), “Bill—how can I get (and keep) an HPJIE like you?”

I love those magazine ads that lead off with lines like, “I’d like to share this with my fellow man before it’s too late.” Too late for what? *The Tonight Show*? I think the guy in the picture was standing in front of a Rolls Canardly parked in front of a magnificent mansion holding a handful of earthworms or some other get-rich scheme that he hoped to sell you information about. Trust me: I’m not going to try to sell you anything—unless my publisher decides to print up a batch of classic *Loose Connections* in a leather-bound edition perfect for home, den, or office.

But I really do want to try to pass along my tips for snagging your own HPJIE, and as much as I like to have fun, some of this is actually good information that’s as close to serious as I’ll ever get.

Start with a ham license (they *do* still offer them, don’t they?). It will show your prospective employer that you demonstrate a basic proficiency in electronics theory, FCC regulations, and the ability to stay up very late at night. If your new boss has a ham license, it’s wise not to let on that yours is a *higher class* than his. Same with code speed; keeping mum on your superior ability is like letting the boss win at golf—even if you can copy 55 with a pencil, tell him you’re impressed with his 5 wpm and that you’re trying hard to get to 4!

Learn that the phrase “some college” means you’ve at least attended a class or two. “Less than two years” is a good way to avoid specifics. My own three credits in English got me this far.

Inflation is not just for the economy. There are ways to pump up that resume, too. Brief statements in your written resume will leave room for some Q&A in your interview, where you can be clever without being too concise. Figuring out a solution to an annoying problem is really “Developing a new method for quantifying the (blah blah blah), etc.

So let’s assume that you’ve gotten the job—or at least a probationary trial—and you’ve been given a problem to solve, as I was just recently. You’ve got to find a way to upgrade a 30-year-old satellite uplink facility to handle today’s digital television—economically.

“Googling” can only get you so far, if you’re an old analog person. The terms and acronyms

will soon leave you scratching your head and thinking about admitting to the boss that you haven’t got a clue. So instead you...

Call on old friends. Jonathan (his real name), the chief engineer at a nearby satellite uplink facility which will go un-named, whom I have met several times on the phone but never in person, got me through this last situation. A quick call to him (and my admission to being completely ignorant of digitization) got me a couple of brand names and model numbers of encoders, modulators, and upconverters that would make use of our current high-power amplifier.

Call the sales people. This is where you openly admit that you haven’t got a clue what you’re asking about, but your boss wants you to figure out what you need. I haven’t yet met a sales guy who wasn’t willing to walk me through just what I needed to know so that I could sound intelligent about a specific subject in a matter of one phone call.

Sandbag. If you don’t know what this means, you should. In a nutshell, sandbagging means that when you figure the job will cost \$300, tell the boss it’s probably going to be about \$500. Then when it comes in at \$400, you’re a good guy. If you start by telling him \$300 and it comes in at \$400, you’re a _____ (fill in the blank with your choice). It still costs him the same, but you’ve made him feel good. A happy boss is, well, if you can’t figure that out maybe you should be bagging groceries.

Know that “engineers” (a term applied to most people who use screwdrivers today) end up being called upon to carry things, fix faucets, explain why things around the office don’t work, and help other employees with the occasional home-wiring task or to fix a TV. A sense of humor helps—but be careful with that sense of humor. I once had a sign over my desk that read, “People work for money. If you want loyalty, buy a dog.” I don’t work there any more. To be honest, I’m glad I don’t, because it’s closed now. The owner still hasn’t bought a dog.

Have fun. Be creative. Stay safe. Don’t test AC circuits with your tongue. Don’t wear a metal watchband. Carry band-aids. When you lend your boss a tool, just go out and buy another; it will save you countless time and embarrassment.

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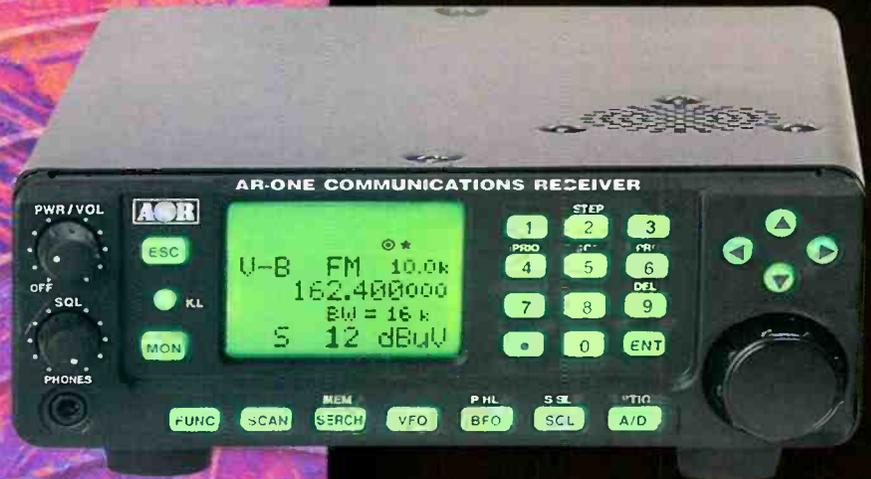
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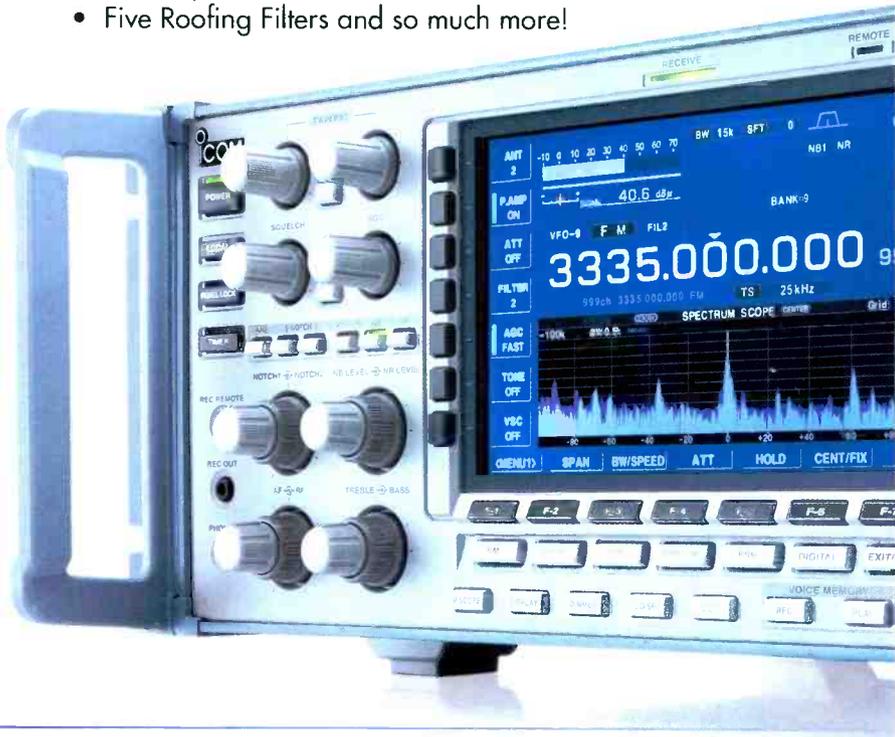
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