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POPULAR COMMUNICATIONS

NOVEMBER 2012

Shortwave Listening • Scanning • AM & FM • Radio History

Shannon's New Decade

After 10 Years of AM-FM-TV Memories, She Looks Ahead, While Looking Back, p. 72

PLUS:

- Military History: Last Messages From Corregidor, p. 12
- Stand By! WLS's Vintage Reader Guide, p. 16
- Alinco's New DX-R8T Receiver, p. 24

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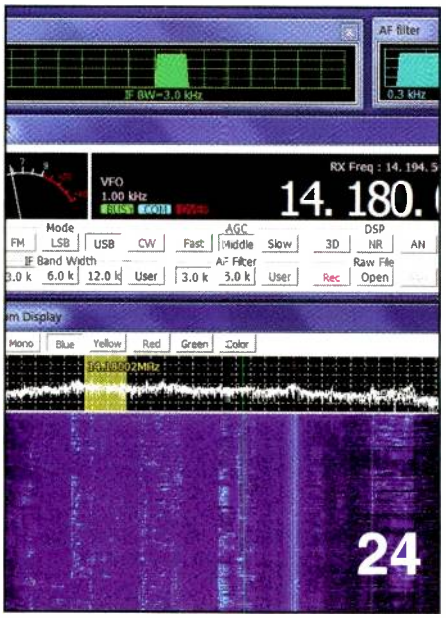

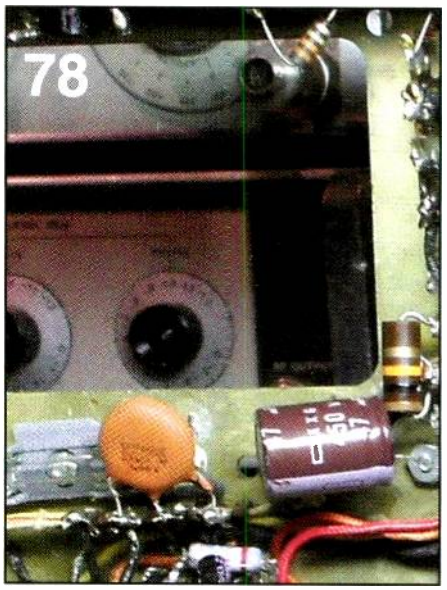

FEATURES

FEATURED COLUMNS

ON THE COVER

Shannon Huniwell, WPC1HUN, this month begins a new decade of AM-FM-TV memories with *Shannon's Broadcast Classics*. Since her inaugural column in 2002, Shannon's nostalgic touch with radio history has become a reader favorite. We're as thrilled to have her presence in *Popular Communications* as you are. This month, catch Shannon's 10th anniversary musings on page 72. *(Photography courtesy of Shutterstockk)*

COLUMNS

DEPARTMENTS

Tap into secret Shortwave Signals

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Monitor any station 24 hours a day by printing transmissions. Printer cable, **MFJ-5412, $11.95.**

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High Performance Modem

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It's easy to read -- front-mounted 2 line 16 character LCD display has contrast adjustment.

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MFJ-5606TR, $24.95. Same as MFJ-5606SR but Reverse-TNC male to N-male.

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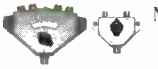

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EDITORIAL
Tuning In

by Richard Fisher, KPC6PC/KI6SN
<editor@popular-communications.com>

Pop'Comm @ 30: Remembering Tom and 'Fritz'

In our yearlong trek through the back issues of *Pop'Comm*, it has turned into great sport here to separate factual articles from the fiction that Founding Editor Tom Kneitel, K2AES, sprinkled through the magazine beginning with Volume 1, No. 1 in September 1982.

As we learned in September 2012's *Tuning In*, "Tom Cat" was known to make up some really interesting tales from time to time — often writing under a pseudonym.

A story he wrote in *Pop'Comm's* First Anniversary Issue has me wondering. It's headlined *The 'Heil Hitler' Radio Station: Was It Operated By a Prankster, a Lunatic Or a Real Spy?* It's over Tom's byline.

In the July 1941 issue of *QST*, the ARRL took radio amateurs to task for failing to report the illegal operation of a Midwestern radio operator it identified as "Fritz" — an "unlicensed punk" who led government authorities "on a merry goose chase for several months while he played tag on War Department frequencies."

A month later, the League published an item headlined *P.S. On 'Fritz,'* — a veiled mea culpa revealing there had actually been two Fritzes. The original was from New England and radio amateurs had, indeed, played a major role in the operator's arrest. *Oops.* But what about the other Fritz?

Well, in September 1983's "*Heil Hitler Radio,*" Tom gave readers a blow-by-blow description of Midwestern Fritz's capture, including "some actual quotes from transmissions." Fritz, Tom reported, was known to lace his on-air diatribes with shouts of *Heil Hitler!*

For example:

"Your insolence will not be tolerated by German troops. This station is under the control of the German Signal Corps . . . Name here is Hans vonKreiger. *Heil Hitler!*" And: "I am a cryptographer. You must give me some information in exchange for this stuff. Give me the locations of . . . WLXA, WLM, WLH, WLV, WLJ and WLT." *Huh?*

Tom's piece was accompanied by photographs Tom alleged to be of actual government agents in their direction-finding vehicles while on the hunt for Midwestern Fritz, purportedly in Peoria, Illinois. Heck, the shot of the "federal agent" checking out Fritz's equipment looks like a garden-variety DJ of the time.

Other than the two *QST* article references, the trail here for Tom's sources on *Heil Hitler Radio* turned cold. It's a great story for the first anniversary issue of *Pop'Comm.* While it raises my suspicion, the piece is just bizarre enough to be real. *But is it?*

***(WHAT DO YOU THINK?** A copy of "The Heil Hitler Radio Station" from September 1983 has been posted on Pop'Comm On the Web <http://www.popcommmagazine.blogspot.com>. Fact or fiction? Please let us know! – KPC6PC)*

T'was a Hoot in Huntsville

I was so fortunate to have pulled the long straw to attend the Huntsville Hamfest in Alabama the weekend of August 18 and 19. It's billed as the "friendliest," and we can report there was no shortage of southern hospitality.

The Von Braun Center is a fabulous location. It was packed to the rafters with radio enthusiasts from around the region and the world. It was a great weekend.

As always, we sincerely thank everyone who stopped by the CQ Communications booth to say hello to *CQ* Editor Rich Moseson, W2VU, and me. Your feedback and suggestions are greatly appreciated and taken to heart. *Thanks for showing us a fabulous time!*

Pop'Comm-WRO Online Chat, November 4

We hope you can join in on the *Pop'Comm-WRO Live Online Chat* on Sunday, November 4, beginning at 8 p.m. Eastern time. It'll be our "Switch Your Clock to Standard Time" edition.

As always, the hour-long session promises to be casual, friendly and laid back. What better way to finish the weekend?

At chat time visit the *WorldRadio Online* blog at <http://www.WorldRadioOnline.blogspot.com> and click on the *Cover It Live* box. You'll be linked right into the chat. See you there!

– Richard Fisher, KPC6PC/KI6SN

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The Weirder Side of Wireless, and Beyond

Compiled by Richard Fisher, KPC6PC

Photo A. *Teenie-weenie* radio transmitters have been glued to the backs of northern hairy wood ants in the United Kingdom, "allowing researchers to study the ants' interaction with others within their own colony and between nests." Hummmmmmm . . . (*Internet screen grab, <http://bbc.in/PYtyJC>.*)

Photo B. An interview on Sacramento KTXL-TV "leads to a frank and open discussion of which is more efficient — Morse code or cell phone texting," Pounding brass at 35 wpm, N6MQL, faces off with reporter Zohreen Adamjee. Let the games begin! (***WATCH:*** *The KTXL story at <http://bit.ly/P94s8t>.*)

Ant-enna: UK Hairy Insects Are 'Going Mobile'

Scientists investigating the habits of the United Kingdom's largest ant have tagged about a thousand of them in Derbyshire. No surprise: *It's the first study of its kind.*

According to the BBC report, the teenie-weenie radio transmitters "will be glued to the backs of northern hairy wood ants, **Photo A**, allowing researchers to study the ants' interaction with others within their own colony and between nests. It is hoped the findings will help the National Trust look after the hairy wood ants, which are a protected species in the UK."

*(**WATCH:** The BCC hairy ants being prepared to "go mobile" at <http://bbc.in/PYtyJC>. – KPC6PC) (Source: Southgate ARS News)*

The Carnage Continues: Morse Ops 2, Texters 0

In a showdown reminiscent of Cell Phone Geeks vs. Morse Code Telegraphers on the *Tonight Show With Jay Leno*, the KTXL Fox 40 *Morning TV News* sent Tech Reporter Zohreen Adamjee to interview **Michael Aretsky, N6MQL, Photo B**, about amateur radio, Morse code, and the W6SFM Samuel F. Morse Amateur Radio Club in Sacramento, California.

Of course, the interview leads to a frank and open discussion of which is more efficient — Morse code or cell phone texting. Pounding brass at 35 wpm, N6MQL, beats Adamjee "by three words." By the way, we have it on good authority the telegrapher pauses to talk to the reporter during the sending test. *(**WATCH:** The KTXL story at <http://bit.ly/P94s8t>. – KPC6PC)*

The copy sent: The lyrics to Abba's "SOS," <http://bit.ly/Pp9AW0>.

SFM ARC members appearing in the background include Chris Watson, AI6U; John Geyer, WB6UBK; and Mike Kashuba, K6LQ. Duane Wyatt, WAØMJD gets a shout-out for his involvement in the *Kids Club* program that brings amateur radio and Morse code equipment to ill children.

And the beat goes on . . . (Source: Published reports)

Ham Has 'No Support, No Mechanic, No Clue'

Speaking of *going mobile*, a small war in Tajikistan wasn't enough to keep Neil Melville, PA9N, and Helen Woolnough from driving their 9-year-old, 1.1-litre Fiat Panda from the United Kingdom to Mongolia.

They were taking part in the Mongol Rally where participants drive, in no more than six weeks, from the UK to Ulaanbaatar in Mongolia, "using a thoroughly unsuitable car of 1.2 litres or less," according to a published report.

"Helen and Neil's entry is called *The Uncertainty Principle* and they started on their epic journey from the UK on July 14 . . . They are raising money for the Lotus Children's Centre Charitable Trust and UNICEF and aim to cover more than 10,000 miles through 19 countries, with no support, no mechanic, and no clue."

PA9N has given many presentations to the AMSAT-UK International Space Colloquium. His first spacecraft project was XO-53, <http://bit.ly/NU7LEF>.

*(**IN DEPTH:** Check out PA9N's blog at <http://bit.ly/PLP30Q>. – KPC6PC) (Source: Southgate ARC News)*

'Our Signals Went That-A-Way'

North Queensland stations Hot FM and 4RFM had their transmitters stolen recently. So did Southern Cross Austereo, 91.3 HOTFM, whose equipment was stolen from Carborough Range.

Somebody call the police!

"As the market for broadcast transmitters isn't massive in Australia, if anybody gets offered a black market deal, could they *please* let me know via email, or call the Moranbah Police on 07 4941 6200?" SCA Engineer Matt Paton lamented. *(Source: RadioInfo.com, <http://www.radioinfo.com.au>)*

Communications News, Trends and Short Takes

By Richard Fisher, KPC6PC

IARU Embraces 'dot.radio' Internet Designation

The International Amateur Radio Union (IARU) has put its arms around a European Broadcasting Union (EBU) proposal that dot-radio be used "to help to create a global radio community," according to *Southgate ARC News* and Jim Linton, VK3PC.

"IARU President Tim Ellam, VE6SH, said the IARU believes that the proposal, to be submitted by the EBU, could provide a unique opportunity to standardize radio domain names" on the Web.

"I recommend that the dot-radio Top Level Domain proposal of the EBU be approved by ICANN (Internet Corporation for Assigned Names and Numbers)," VE6SH said in a letter endorsing the concept.

BBC Conducts Trial of Medium-Wave Shut Down

From August 17 to September 24, the British Broadcasting Corporation undertook a five-week trial "to switch off existing MW (medium wave) services for four BBC local radio stations — Radio Kent, BBC Radio Lincolnshire, BBC Radio Merseyside, and BBC Radio Nottingham.

"The BBC is required to make savings," the broadcaster reported on its website. "One option to make savings and preserve value to license fee payers is to switch off MW services except where listeners depend upon MW as an alternative to FM and DAB.

"MW services mainly duplicate what is already available on FM and DAB, and most listeners will be able to hear their local stations on FM," the announcement said. "The BBC is also committed to a full roll out of local radio stations across the DAB network. If local radio is not already available on DAB it will be in the future."

The BBC said the goal of the trial was "to get a better understanding of the impact of the loss of MW for our core listeners and also enable us to ensure adequate coverage is available on other platforms in these areas." *(**VISIT:** The BBC website <http://bbc.in/NUTzvl>.)*

Intruder Identified On 40-Meter Amateur Radio Band

Radio Bangladesh Betar is broadcasting in the amateur radio 40-meter band, according to allegations posted on the IARU Region 1 website.

Wolf Hadel, DK2OM, Coordinator of IARU-MS Region 1, and Vice Coordinator Uli Bihlmayer, DJ9KR, say that since August 13, Bangladesh Betar "has been transmitting every day programs in English and Bengali on the exclusive amateur radio frequency 7105 kHz.

The IARU posting says the UTC broadcast times and programming schedule are:

- 1745-1800 – Carrier
- 1800-1900 – English (General Overseas Service)
- 1900-1915 – Carrier and/or measuring tone
- 1915-2000 – Bengali Service
- 2000-2015 – Carrier with white noise, 10-kHz spread

The homepage of Bangladesh Betar indicates 7250 kHz as the transmission frequency of its external broadcast service. *(**VISIT:** Radio Bangladesh Betar at <http://bit.ly/PZwq90>. – KPC6PC)*

HDTV Ads More Common, But Lag in Viewers

Over the past two years, high-definition TV advertising is up 150 percent according to Extreme Reach, a video advertising distribution and services provider. In a Web story sourced to *Broadcasting & Cable*, HD ads still account for only 25 percent of all those seen by viewers — 70 percent of whom now have HDTV sets.

TIA Calls for Opposition to 'Global Internet Governance'

The Telecommunications Industry Association (TIA) has urged the Democratic and Republican parties to oppose efforts by some foreign governments to impose new rules on the Internet.

"In a joint letter with other associations, TIA noted the recent unanimous support in the House of Representatives for a resolution confirming U.S. opposition to efforts to place Internet governance under the control of a multi-national body," the organization said. "Some foreign governments are considering advancing such proposals at the upcoming World Conference on Information Technology (WCIT) this December in Dubai."

The letter urged both parties to adopt a unanimous, bipartisan U.S. position as part of their official platforms. *(**IN DEPTH:** Read the TIA letter to the Democratic Party at <http://bit.ly/QQ5Dsc>, and the Republican Party at <http://bit.ly/PP2bQk>. – KPC6PC)*

Victor Poor, Computer Processor Pioneer, Dead at 79

The United Kingdom website *The Register* reports that one of the engineers who designed what would become the Intel 4004 chip has died.

Victor Poor, 79, "along with fellow radio enthusiast and student Harry Pyle," came up with the design on Thanksgiving weekend in 1969, "sketching out the architecture in his living room in a marathon four-day session. He also played a key role in working with Intel on the 8008 chip, the world's first 8-bit microprocessor."

Poor, who was a licensed radio amateur with the call-sign W5SMM, also held AH6AXV and K3NIO, the ARRL has reported.

"He developed an active interest in ham radio while still in high school and became W6JSO in 1951," the ARRL said. "Victor developed the automatic global store-and-forward system APLINK and in 1999 he organized a volunteer amateur development team to replace APLINK called Winlink 2000." *(**IN DEPTH:** Reader The Register obituary at <http://bit.ly/PP3NcM>.)*

Capitol Hill And FCC Actions Affecting Communications

by Richard Fisher, KPC6PC/KI6SN

'Carolina Cuties' Turns Ugly for Charlotte FMer

Alleged contest violations have prompted the Federal Communications Commission to propose a $10,000 fine against a North Carolina FM station and its conduct of the 2011 "Carolina Cuties" baby picture competition, according *AllAccess.com*.

According to authorities, the issue facing CBS's Urban AC WBAV (V101.9)/Charlotte "involved conflicting information from the station regarding the contest voting deadline that a complainant said 'deterred public participation through voting and unfairly compromised her child's chances of winning,'" the report said.

"The station admitted that its staff posted the wrong information on the station website and in emails but denied that it did not conduct the contest substantially as announced or advertised," *AllAccess* reported, "but the Commission disagreed, saying that 'CBS staff misinformed the voting public and the contest's finalists about the dates when voting would conclude and when the grand prize winner would be announced.'" *(**IN DEPTH:** Read the AllAccess.com story at <http://bit.ly/QPFQ3m>.)*

Congressman Supports Drive for FM Chip in Cell Phones

The National Association of Broadcasters and FM chip advocate Jeff Smulyan have "apparently gained another ally in Congress," according to a report on *RadioInk.com*.

The NAB and Smulyan have been advocates for including an FM receiver chip in cell phones, calling it a public safety issue.

In a letter to Congressman Gus Bilirakis, Chairman of the Subcommittee On Emergency Preparedness, U.S. Representative Hansen Clarke (D-Michigan) recently called for another hearing on the matter.

The ability to communicate "is critical in times of an emergency," Clarke said. "I believe the use of broadcast radio chips can provide consumers with fast and reliable access to both emergency alerts and in-depth emergency information." *(**IN DEPTH:** Read the RadioInk.com story, <http://bit.ly/MYiJHT>.)*

"The wireless industry has not been a big supporter of Congress getting involved, especially if the plan is to mandate the chip into all phones," RadioInk.com reported. "Representative Clarke says the chip 'is a very important issue that could have serious implications for this country's homeland security.'"

November 2011 EAS Test Results Shared With GAO

Confidential data from cable operators, broadcasters, and others that was collected by the FCC as part of its Emergency Alert System (EAS) test November 9, 2011 has been turned over to the Government Accountability Office (GAO), according to published reports.

"The FCC promised that performance (information) . . . would be confidential and not released to the public, but that apparently does not mean it can't be shared with GAO," according to John Eggerton on *Multichannel News*. The GAO is "an independent investigative arm of Congress."

In releasing the information, which included test results, the FCC's Homeland Security Bureau cited the GAO's investigation into progress in modernizing EAS.

"FCC rules state the information can be disclosed to other federal agencies unless the commission has given explicit assurances that would not be the case," Eggerton writes. *(**IN DEPTH:** See the Multichannel.com story at <http://bit.ly/NAYZpx>.)*

'Pixelation Situation' Raised By Parents Television Council

The Parents Television Council, complaining that incidents of pixelated nudity on TV have significantly increased in recent years, is leaning on Congress and asking the FCC to "clear out its backlog of indecency complaints, now totaling over 1.5 million," according to a story posted on the *Multichannel News* website.

"They have gone from strategically-placed items and black parts to the pixelated approach that (the Council) says provides 'the full body of flesh tones depicted during full-body nudity scenes where sexual organs are blurred or pixelated,' which PTC says is more explicit because it 'could be perceived to be a closer simulation of complete frontal nudity given that the viewer is seeing all flesh tones,'" the story said.

The Council "is not asking for more laws, just more restraint from (the) industry and more action from the FCC on pending complaints." *(**IN DEPTH:** Read John Eggerton's story at <http://bit.ly/PZnQqO>.)*

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There's a Crisis Brewing in U.S. AM Radio

By Rob de Santos
<commhorizons@gmail.com>
Twitter: <@shuttleman58>

"When major owners of radio properties are saddled with debt, their least successful properties — mostly AM stations — would seem the most vulnerable."

The Future of AM Radio. More properly, it should be called medium wave, but in North America, most refer to it by the modulation method: AM. *(**IN DEPTH:** Learn about AM broadcasting, <http://bit.ly/Qi4xLh>. – K8RKD)*

You could say there is a crisis brewing and it may be the trends in the radio business itself that spell doom for AM radio. There are a number of signs that all point to a diminished future for AM radio.

The first started more than four decades ago. The emergence of FM radio in the U.S. in the late 1960s signaled a decline in listening on the AM band. That trend has continued right up to the present day. For a time it slowed with the emergence of talk radio and sports-oriented stations in the 1990s. Now that is fading as more and more talk and sport stations migrate to FM.

The percentage of all radio listening done on AM stations is now down below 20 percent and perhaps as low as 10 percent in some major markets. Moreover, the situation is not U.S.-specific. We have seen AM radio disappear as a major force in radio in Canada, though more by government design than just market forces.

More troubling is the composition of the remaining AM listeners. They are overwhelmingly tilted toward the older end of the spectrum. The band has 85 percent of its listeners among those over the age of 35 and the largest group is over 65 years old. Unlike 50 or 60 years ago, many teens never listen to AM radio. This does not bode well for the long-term future of the band.

Also aging is the talent pool on talk radio where all but a couple of the top 10 hosts — those with the largest audiences — are over 50 years old as are most of the most popular drive-time morning hosts in major markets.

Alongside the trends inside conventional broadcasting is the trend toward new digital means of distribution of audio content including iTunes, podcasting, Internet radio, satellite radio, and smartphones. A recent Pew research study indicates that 40 percent of listeners get their content via digital devices and that number will continue to rise dramatically over the next few years. This trend is also bleeding listeners away from AM radio.

Perhaps the business side of radio is the strongest indicator. Revenue growth in advertising from traditional sources has been about level in recent years with only single digit changes up or down while growth in advertising has been double digit for digital distribution. When the major owners of radio properties are saddled with significant debt, their least successful properties — mostly AM stations — would seem the most vulnerable.

With declining listenership, flat revenue, high debt, and the increasing loss of the formats that have sustained it in recent decades, the question to be asked: *What is the future of the band in the U.S.?*

In the near term, it's likely that more and more formats will migrate to FM, leaving AM to smaller niche formats or hyper-local stations in less-populous areas. The FCC and the broadcast industry will face major decisions soon on the future of the AM band.

HD radio and AM stereo have both been largely market failures in terms of revitalizing the band. There are just a few ideas are out there that would seem to offer any solutions.

However, if the FM band were to be expanded on the lower frequency end, there would be no need for the AM band for many listeners, as all the current AM stations in most markets could migrate to the new band space.

At this point, there is no movement by the FCC to do this nor are the broadcasters of radio or television likely to support it. That point of view may change in another five to 10 years as the profitability and value of AM stations continues to decline.

Obviously, few current radios outside of those that cover both the U.S. and Japanese FM bands would be able to hear any stations below 88 MHz in an expanded band. It is also no guarantee that the formats left on AM would be any more viable on an expanded FM band.

Another option would be to re-purpose the frequencies for other specialized services. What those might be and whether they could be profitable to the current owners is unclear. Whatever is done, it does not appear there is any movement yet to *save the band* or fix the issues facing it. This all but guarantees the current trends will continue.

Do you still listen to AM radio? Do your children? Should the FCC make plans to re-purpose AM frequencies in the next decade or expand the FM band? Drop me a note with your thoughts. I look forward to hearing from you. – K8RKD

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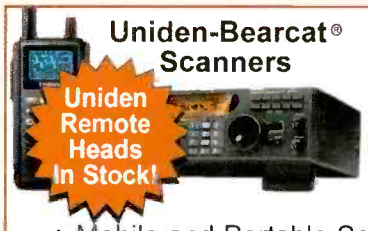

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The Last Words From Corregidor

Morse Messages of 70 Years Ago Sealed in History for All Time

By R.B. Sturtevant KPC7RBS/AD7IL

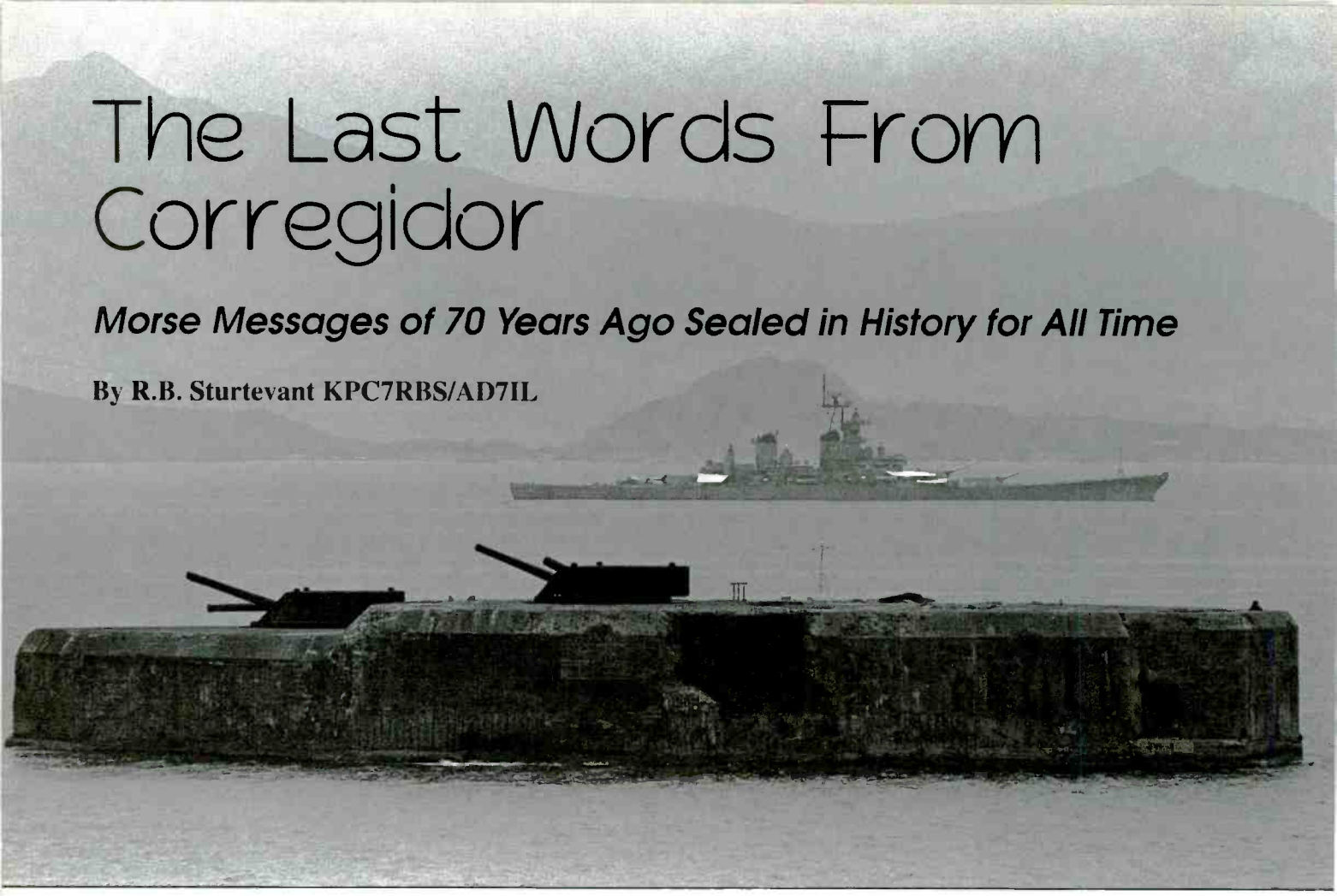

Photo A. The USS New Jersey passes between Corregidor, background, and Fort Drum as the battleship enters Manila Bay, Philippines. The region was the site of fierce fighting 70 years ago in World War II's Pacific campaign. *(Courtesy of the U.S. Navy)*

Most people, those who don't *play radio,* never get to know about the tight bond that can be formed between people we hear through the airwaves.

Maybe it is a personable news reader in a far-off country telling us the latest about a leading news events. Maybe it is a woman, whose voice speaks of places and things we've seen only on maps or heard about in magazine articles.

Or perhaps they are radio amateurs who have talked weekly for years but have never met, and, in some cases, never heard the other's voice.

These people become very important people in our lives, nonetheless. That is the kind of friendship that Irving Strobing and Arnold Lappert had.

May 5, 1942: Hawaii-Corregidor Morse Connection

In the midst of the Pacific campaign during World War II, on May 5, 1942, U.S. Army Sgt. Arnold Lappert was at his radio post in the main Army Communications Center for Hawaii at Schofield Barracks on the island of Oahu. He had been there when the Japanese attacked December 7, 1941, as well.

Lappert's job was to route radio traffic to America's last outpost in the Pacific — the island fortress of Corregidor in Manila Harbor, Philippines. Corregidor was one solid rock with miles of tunnels running through it, **Photo A**. Americans had first arrived there in 1898.

"After receiving the final 'Stand By,' Sgt. Arnold Lappert waited . . . and realizing his friend had been killed or captured, began to weep at his key."

The world had changed a lot in the last six months — especially for the Army. There were the Japanese attacks on Pearl Harbor and Philippines in December. Bataan had fallen in April. General Douglas MacArthur had been ordered to take his immediate staff to Australia. Still ahead were the Battle of Coral Sea, Guadalcanal and the Battle of Midway. The times were harrowing and challenging.

Traffic coming from Corregidor was mostly that of wills, insurance matters, and powers of attorney from men who knew they would soon be captured or killed in the final fighting to hold America's last Pacific outpost.

The communications unit to manage this churn of information would result in a developing bond between Lappert and the

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guy on the Corregidor-end of the line: Corporal Irving Strobing, **Photo B**.

The men worked hard to get the vital traffic handled, but during lulls in the Morse messages, there was still time to get to know each other. In such a big world, Strobing and Lappert learned they had much in common.

They were fellow New Yorkers and Jewish.

Strobing, the son of an East New York tailor from Brooklyn, went to Thomas Jefferson High and had attended Brooklyn College for a year before joining the Army in 1939.

Lappert, a Manhattan boy, graduated from George Washington High.

Through the vagaries of the U.S. Army processing system, each would end up as Signal Corps radio operators and technicians on either end of the Corregidor-Hawaii radio net. Because the connection was so important, it was open all the time. A friendship grew between the two.

Nobody on Corregidor had any illusions about the situation. Japanese forces were advancing — the final act of Japan's campaign to conquer the Philippines. Everyone knew the U.S. military had too much on its plate to rescue the exhausted American and Philippine troops there. *(**IN DEPTH:** For details about the Battle of Corregidor, visit <http://bit.ly/OiW1qc>. – KPC7RBS)*

Finally the order was given that the communications post at Corregidor would be going off the air. Naturally a listening watch would be kept until the last.

In Corregidor's 11th hour, Strobing, at his Morse post, would pound out a series of final messages as chilling today as it was 70 years ago:

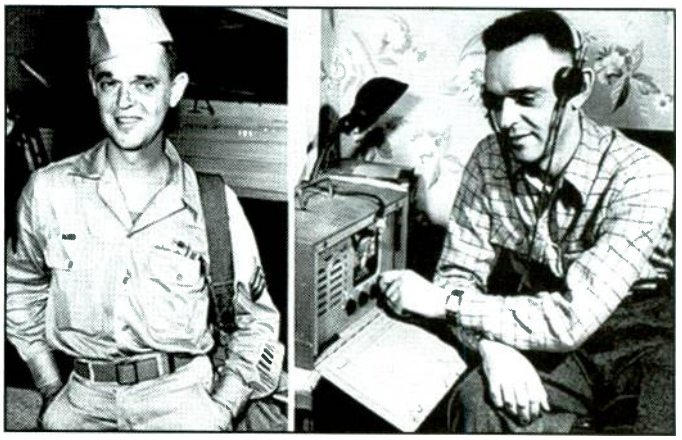

Photo B. Corporal Irving Strobing sent the final chilling message before the fall of Corregidor during World War II on May 6, 1942 — 70 years ago. It was copied in Hawaii by his Morse operator friend Sergeant Arnold Lappert, who, after receiving it, wept at his Morse key with sadness. *(Courtesy of U.S. Library of Congress)*

May 6, 1942: The Final Message

Philippines

"They are not near yet. We are waiting for God-only-knows what. How about a chocolate soda? Not many. Not near yet. Lots of heavy fighting going on. We've only got about 1 hour, 20 minutes before . . . We may have to give up by noon. We don't know yet. They are throwing men and shells at us and we may not be able to stand it. They have been shelling us faster than you can count.

". . . We've got about 55 minutes and I feel sick at my stomach. I am really low down. They are around now smashing rifles. They bring in the wounded every minute. It is a horrible sight. We will be waiting for you guys to help. This is the only thing I guess that can be done.

". . . General Wainwright is a right guy and we are willing to go on for him, but shells were dropping all night, faster than hell. Damage terrific. Too much for guys to take. Enemy heavy cross-shelling and bombing. They have got us all around and from skies.

" . . . From here it looks like firing ceased on both sides. Men here all feeling bad because of terrific nervous strain of the siege. Corregidor used to be a nice place. It's haunted now. Withstood a terrific pounding.

" . . . Just made broadcast to Manila to arrange meeting for surrender. Talk made by General (Lewis C.) Beebe. I can't say much. Can't think at all. I can hardly think. Say, I have 60 pesos you can have for this weekend.

" . . . The white flag is up. Everyone is bawling like a baby. They are piling dead, wounded soldiers in our tunnel. I'm vomiting. Arms weak from pounding key long hours. No rest, short rations. Tired.

" . . . I know now how a mouse feels. Caught in a trap waiting for guys to come along, finish it up. Got a treat. Canned pineapple. Opening it with a Signal Corps knife.

" . . . My name Irving Strobing. Get this to my mother. Mrs. Minnie Strobing, 605 Barbey Street, Brooklyn, New York. They are to get along OK. Get in touch with them soon as possible.

" . . . *Message:* My love to Pa, Joe, Sue, Mac, Carrie, Joy and Paul. Also to all family and friends. God bless 'em all, hope they be there when I come home.

" . . . Tell Joe, wherever he is, *'em hell for us.* (Irving's brother Joe was in the artillery.) My love, you all. God bless you and keep you. Love. Sign my name and tell my mother how you heard from me. Stand by."

Message Received . . .

In Hawaii, Lappert reported having a one-star general as his *runner.* With each new bit of information, the general would rip it out of Lappert's hands and run off.

Photo C. "Irving Strobing's last words from Corregidor took on a life of thierzzzz own," writes KPC7RBS. "They were reprinted in newspapers and spoken over the radio as dramatic readings, and even made into a scene in a movie about the incident." See the YouTube video "Last Broadcast of Corregidor" at <http://bit.ly/QiyYB3>. *(Internet screen grab)*

After receiving the final *Stand By,* Lappert waited a while. Then, realizing his friend was either killed or captured, began to weep at his key.

The War's Haunting Memories

"When I turned my head (after sending the message) I was looking up the barrel of a Japanese soldier's rifle," Strobing said after the war. "He made a gesture. I raised both of my hands."

That began Strobing's three years as a prisoner of war — not that he was a *good prisoner.* He managed to keep a gold ring hidden between his dog tags. Strobing's mother had given it to him and he held onto it despite numerous Japanese shake downs.

Strobing helped by working a radio that British prisoners had smuggled into the camp, as well. The punishment for possession of a radio was death. He was never caught, and survived his time as a POW.

A Message and Friendship Not to Be Forgotten

Strobing's last words from Corregidor took on a life of thier own. They were reprinted in newspapers and spoken over the radio as dramatic readings, **Photo C**, and even made into a scene in a movie about the incident.

After World War II, Lappert began searching for Strobing. At a meeting of Jewish American War Veterans held in Madison Square Garden, the two finally met, where they re-enacted their contact via radio and were afterwards presented with a chocolate soda and two straws.

Lappert went on to design, build and sell furniture until his retirement to Florida. He died in 2007, **Photo D**.

Strobing stayed in the Army until 1949 and then found work as a civil servant with the Federal Aviation Administration and later the Department of Agriculture. After retiring, he moved to North Carolina and was active in his local amateur radio club as a member of Amateur Radio Emergency Service®. He died in 1997, **Photo E**.


The New York Times

Obituaries

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION

Arnold Lappert, 86, Who Heard Corregidor Fall, Is Dead

By RICHARD GOLDSTEIN
Published June 7, 2007

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Arnold Lappert, the Army radio technician in Hawaii who received the last messages from the island of Corregidor before its surrender to the Japanese in May 1942, and nearly four years later realized a quest to find the fellow New Yorker who sent those final desperate words, died Friday in Dania, Fla. He was 86.

The cause was kidney failure, his family said.

On May 5, 1942, Irving Strobing, an Army Signal Corps operator from Brooklyn, tapped the key of his radio inside the besieged Philippine fortress of Corregidor to tell of the last m- -ents endure' by American fo- -e under Lt. Gen. Jonathan M. Wainwright

Photo D. *The New York Times* carried the news of Arnold Lappert's death in its June 7, 2007 edition, <http://nyti.ms/RPyfZF>. *(Internet screen grab)*


The New York Times

Obituaries

WORLD U.S. N.Y. / REGION BUSINESS TECHNOLOGY SCIENCE HEALTH SPORTS OPINION

Irving Strobing, Radio Operator on Corregidor, Dies at 77

By ROBERT McG. THOMAS Jr.
Published July 24, 1997

Irving Strobing, the Brooklyn-born Army radio operator who stirred the pulse of a country by tapping out the last brave messages of horror, humor and hope before the surrender of the Philippines in World War II, died on July 8 at a veterans hospital in Durham, N.C. He was 77 and had sent the last radio transmissions before the fall of Corregidor on May 6, 1942.

His family said the cause was cancer.

There was a Commander in Chief in the White House, a galaxy of generals and admirals in Hawaii and elsewhere and a balooning armed force of millions gearing up to turn the tide of war.

But on the spot at the nadir of the country's fortunes in World War II, six months after Pearl Harbor, two months after General Douglas MacArthur's flight from the Philippines to Australia, a day before the naval victory in the Coral Sea and a month before the smashing success at Midway, there was only Gen. Jonathan M. Wainwright and a few thousand

Photo E. An obituary for Irving Strobing, "Radio Operator on Corregidor," appeared in the July 24, 1997 edition of *The New York Times, <http://nyti.ms/PKAgkv>. (Internet screen grab)*

WLS Listeners, Please 'Stand By!'

Part I: In the 1930s, the Chicago Powerhouse Wooed Listeners Both on the Airwaves and in Print

By Andrew Ooms

As someone interested in radio programming and radio station history, especially that related to Chicago, I recently was an appreciative recipient of a great gift. At a yard sale in Payson, Arizona, a friend of mine bought a box of magazines published by Chicago radio station WLS more than 70 years ago.

The magazine was titled *Stand By*, published weekly and mailed to subscribers for $1 per year. Individual copies were a nickel. My friend paid $5 for the magazines and gave them to me. The copies I now have were originally mailed to an individual in Farmersburg, Indiana. I have more than 160 issues dating from February 1935 to February 1938. **Photos A**, **B**, and **C**.

Some context may help here, although likely redundant for some *Popular Communications* readers: WLS in the 1930s, as now, broadcasted at the maximum allowable power for United States AM stations — 50,000 watts. Back then, WLS was at 870 on the dial. After a North American broadcasters' agreement reached in the 1940s, WLS moved to its current position of 890 kilohertz.

Back in the Day . . .

WLS was operated by Sears-Roebuck Co. shortly after its inception in 1924, and the company was happy to encourage the understanding that WLS referred to *World's Largest Store*. The Federal government wasn't — and isn't — involved in station slogans or determinations as to what the call letters stand for. In fact, WBBX, WES, and WJR (subsequently assigned to Detroit) were considered as call letters for the Chicago station. But the final decision was WLS.

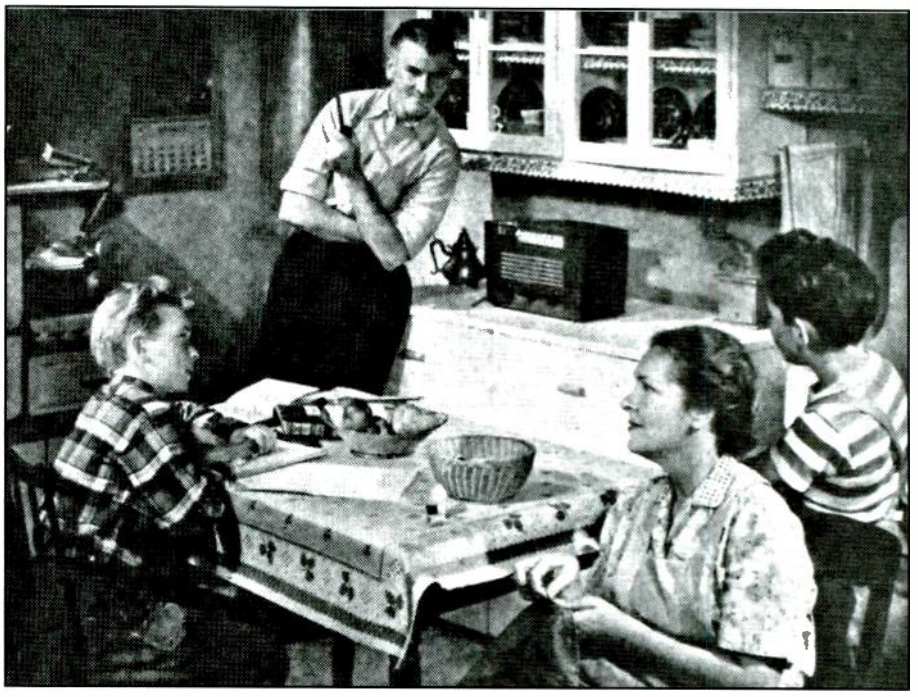
By the 1930's, Sears Roebuck had sold the station to *The Prairie Farmer* magazine, **Photo D**, an immensely successful and respected farm publication circulated throughout the Midwestern states.

"The magazine entertained a fabulously successful combination of city-dwelling, regional, and somewhat isolated and distant rural listeners . . ."

WLS' programming was thoroughly consistent with the company brand, happily accepting its urban audience, many of whom had moved to the city from the farm not too long before. But the station really emphasized its pastoral outreach during an era when rural America did not have nearly the access to mainstream media and culture it does now.

So what did the American farm family do during its evening leisure hours before the 1920's? It is a little hard for us to imagine a time when radio and television broadcasting was non-existent, and newspapers were hard to get on a timely basis for many rural readers. Rural evenings were then spent playing games, making music and listening to family members make music, reading, and chatting when guests visited. By today's standards, bedtime was much earlier.

Try to imagine the growing excitement created by the fantastic new pastime of radio listening. What started as most-



Wireless Fascination: What started as mostly younger and middle-aged males who experimented with non-user-friendly crystal sets, earphones, and erratic programming schedules — *early radio geeks* — became, by 1930, a huge audience of all ages, no longer predominately male. *(Courtesy of Wikimedia Commons)*

Photos A, B, C. The weekly arrival of WLS's *Stand By* magazine was highly anticipated by the Chicago station's legion of listeners, who were never disappointed. Shown here are, from left, the April 11, 1936; October 9, 1937; and January 1, 1938 editions. *(Courtesy of Andrew Ooms)*

ly younger and middle-aged males who experimented with non-user-friendly crystal sets, earphones, and erratic programming schedules — *early radio geeks* — became, by 1930, a huge audience of all ages, no longer predominately male. They listened to the magic of information and entertainment every day and night from local and long-distance sources.

WLS Enlists Listeners As Partners

Stand By entered the picture as *The Prairie Farmer* solidified listener loyalty by making its listeners part of the growing WLS family of staff and audience.

The magazine contributed to a fabulously successful combination of city-dwelling, regional, and somewhat isolated and distant rural listeners with extremely popular country music programming, information services of unlimited variety, and an emphasis on a human, folksy, and charismatic staff.

WLS was not the only station to utilize a magazine to emphasize being part of the listener's family and probably not the only Chicago station to do so. But the essence and evidence of WLS' success is captured in issues of *Stand By*.

The magazine began in 1935 with 16 pages and grew to 20 pages within a few months. It was printed on cheap paper, identical to that used by comic books back then. The only color used at that time was on the cover, consisting of a solid color background framing a black and white photo of a station personality.

Broad Scope of Content

The magazine's content covered an extensive landscape including recipes, sewing patterns, dress and hat sketches, and other homemaker hints pages with regular writers.

Several folksy comment columns were included, as well. Some of them were humorous, some personality oriented, and some describing various station operations matters.

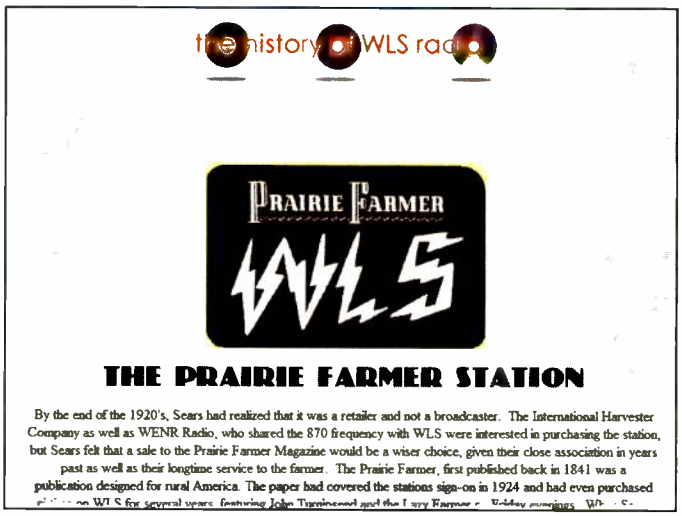


Photo D. The WLS Radio website gives details about the station's ownership transfer from Sears-Roebuck Co. to *The Prairie Farmer* magazine in 1928, <http://bit.ly/NUwl42>. *(Internet screen grab)*

Many poignant Depression-era items appeared in *Stand By*. Descriptions of street urchins trying to sell shoelaces or shoe shines even after dark and in the winter, and of adults wandering the streets looking for work, and stories of listeners in dire need of basics for their families were not uncommon in the magazine.

An enduring picture was that of a row of 30-or-more unemployed adult men waiting at the elevated and subway exit stairs for the newspapers that riders gave to them after having been read on their way to work.

Personal items about station staff, musicians, announcers, and technicians were published each week. Staff marriages and births

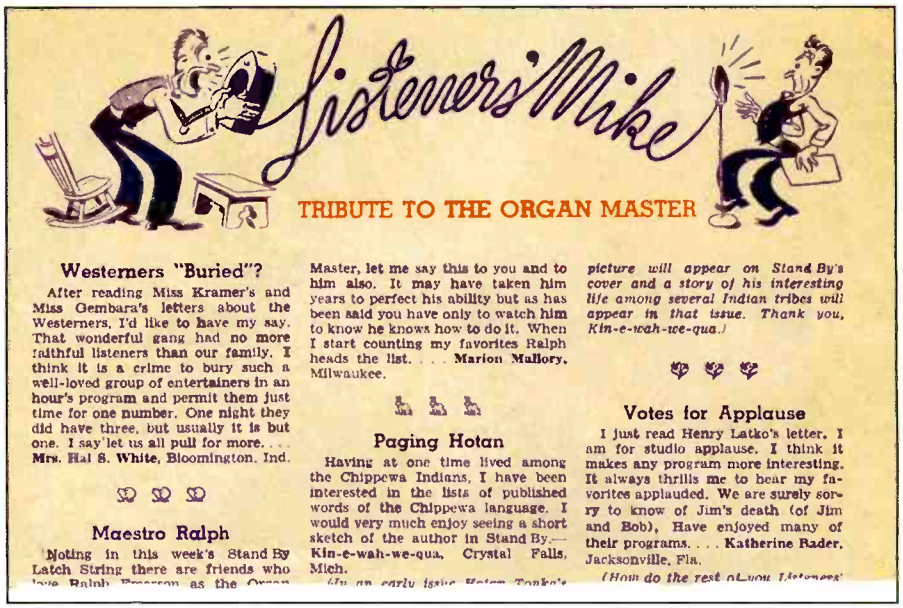


Photo E. *Stand By* readers' letters were published each week in *Listener's Mike* — a folksy collection of "appreciation of on-air staff, and expressions of music preferences to questions about station personalities and people who had left WLS for other opportunities," Andrew Ooms writes. *(Courtesy of Andrew Ooms)*

were announced, often accompanied by photographs. In some cases, the subsequent birthdays of staff children would be noted, along with birthday party pictures — with cakes, siblings, and all. Within a few years, more than 15 weddings in which both bride and groom were WLS personnel, appeared in *Stand By*.

Because so much programming was live, the staff was very large. There were easily more than 100 performers in addition to technical and administrative support personnel. WLS news was easy to come by.

Other personal news items included that of staff involved in traffic accidents and more pleasantly, fishing success stories, and vacation trips. Staff illnesses and deaths were reported, which often brought a flood of well-wishes or condolences from *Stand By* readers.

One or more pages of listeners' letters were published each week — ranging from appreciation of on-air staff, and expressions of music preferences to questions about station personalities and people who had left WLS for other opportunities, **Photo E**. The marital status of on-air staff was of great interest, and related questions were answered factually.

Listeners wrote in their opinions on a variety of radio related subjects, such as whether listening to exciting radio programs was appropriate for children. A great number were comments about styles of music broadcast on WLS and other stations.

Personality Columnists

There were one or two humor columnists writing each week; a regular was Pat Buttram, later famous for being Gene Autry's sidekick on the CBS radio show, *Melody Ranch*. Buttram was mocked for his Arkansas roots in other columns, and he gave as good as he got with his hillbilly dialect humor in a regular column, **Photos F** and **G**. Poems were printed, as well — humorous or serious and folksy in style.

Edgar Guest, at one point a nationally syndicated newspaper poet and author of several poetry volumes, was a regular and graced the cover of October 9, 1937's *Stand By*.

His work was low-key, cheerful, homespun, and common sense oriented. It is easy to see how encouraging and popular his work was during the Depression years. Actually Edgar was from Detroit, traveling by train each Tuesday to Chicago for his live WLS weekly program.

Say 'Cheese,' and Bring on the Music

Pictures were an important feature. In addition to the large cover picture of the *star of the week* were photographs of new babies, new personnel, orphanages

My New Year's
REZOLUSHUNS

by
PAT BUTTRAM

I, PAT BUTTRAM, of the County of Winston, Alabama State, on the First day of the month of January, in the yeer our thousand nine hundred and thirty-eight; do hereby and hence-forth, without any intent to fraud or deceive, resolute:

That I won't smoke any more segars, unless sumbody gives 'em to me.

That I will work as hard as kin be expected uv a feller like me.

That I will take a cold shower ever mornin' . . . with hot water.

That I won't play kards with no man . . . unless I kin use my deck.

That I won't borry ner lend . . . especially lend.

That if a feller set I'm th' ugliest man in the country, I won't ask him to prove it.

That I will brag on my wife all the time . . . but I will do it silently.

That I won't gamble . . . an' I'll bet ye five dollers I kin keep this un.

That I'll live within my income

Photo F. Comedian Pat Buttram, who gained fame as movie cowboy Gene Autry's sidekick, had a regular column in *Stand By* with a special brand of hillbilly humor — as seen in this January 1, 1938 piece. *(Courtesy of Andrew Ooms)*

blessed by the largesse of WLS contributions, women's clothing designs, and electronic gear, such as the station's remote broadcast trucks, **Photo H**.

A regular feature was *Notes from the Music Library*, which did not necessarily involve the music heard on WLS, but consisted of a full printing of the lyrics of forgotten or lost old songs requested by readers or listeners. Some had dim memories of long-ago melodies, or could no longer find their copy of the sheet music, **Photo I**.

Sheet music was still popular then, soon to be replaced by increasingly available records and phonographs, and apparently the music columnist had access to thousands of sheet music booklets. He reported he had hundreds of requests for information monthly, so frequently reminded readers that he could not begin to answer all of them.

The lyrics of many of the printed songs were very touching and sentimental involving dying children or relatives or lovers, disappeared lovers, non-returning military sons and husbands, dear old mothers, and wonderful childhood memories.

There were upbeat lyrics, as well, however, involving happy lovers and great religious faith and hope. Not so upbeat were songs titled: "Don't Sell Mother's Picture at the Sale," and the euphemistic "Baby's Gone to Sleep."

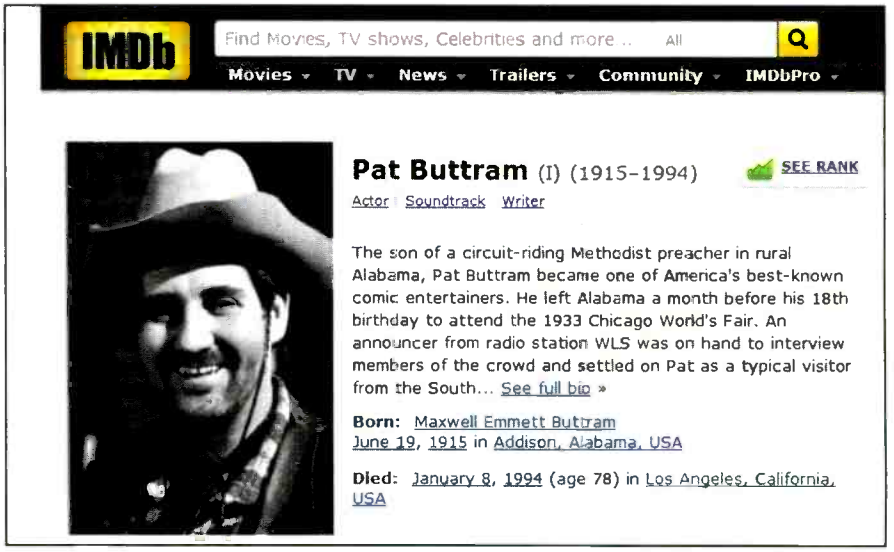
Copies of sheet music were referred to as *songs* in *Stand By*. Offers to trade them by listeners were listed weekly. One woman eager to trade claimed to possess 2,895 songs, not all sheet music but some painstakingly copied from listening to broadcasts. She was trumped by *Francis Queener of Marinette, Wisconsin* who claimed to own 18,000 songs and was willing to trade.

The station produced and sold a book of 100 songs. Another was the *WLS Book of Hymns*, advertised in *Stand By*. They were gratefully referred to by many letter writers.

WLS Programming and Classifieds

Each week the program schedule for the upcoming week was published, **Photo J**. Surprising by today's standards, a column of additional listening suggestions was carried that listed high-

Photo G. For a snapshot of Pat Buttram's long entertainment career and biography, visit the IMDb website at <http://imdb.to/NvAVnO>. *(Internet screen grab)* →



lights of programs on other networks and stations. Apparently the bond of being part of radio in the earlier days was greater than loyalty to a single station, even on the part of station management.

During the second year of *Stand By* classified ads began to appear, and soon filled an entire page. Ads ranged from corporate — ways to make money, health remedies — to individuals who, for example, needed a live-in maid or had a farm for sale.

A couple of comic strips were carried from time to time. They were always humorous, and usually made sport of hillbilly ways and speech.

How Odd: The Notion of AM Frequency Sharing

One of the curiosities of early broadcasting was the situation of frequency sharing. That meant that more than one company broadcast on the same frequency, obviously at different times.

I do not know if any frequency sharing now exists. About 10 years ago there were still some sharing cases in Kansas and Texas. Chicago had one frequency, 1240, which for many decades until not too long ago had three stations: WSBC, WEDC, and WCRW. They usually broadcast in a variety of mostly-European languages, which may explain why they may not sound familiar.

WLS shared 870 and later 890 kilohertz with WENR, another venerated, but now silent set of call letters, until the late 1950s. I remember hearing station identification announcements as *WLS-WENR Chicago* often, although I presume that during certain hours the calls were announced separately. *What were those hours?* Well, they could puzzle an average listener and I


Miniature Mikesters

Billy MacKeon (at the mike) and Jimmy Deutscher helped John Baker put on a special broadcast direct from the International Livestock Exposition in Chicago.

If she follows in her mother's and father's footsteps, tiny Donna Lynne Bergstrom will be a radio artist when she grows up.

Three-year-old Mercedes Williams, en route from her home in Rochester, N. Y., to Hollywood, sang and danced at the Barn Dance recently.

Glenn Quarnstrom, 3-year-old son of Mr. and Mrs. Clarence Quarnstrom (lower right), added his bit to his parents' air-chat concerning their experiences while homesteading in the Matanuska Valley of Alaska. They were guests on a recent Folks Worth Knowing program.

The Chicago Boys' Club chorus of 30 boys and six girls, directed by Howard Tooley, appeared on a Barn Dance program and on a Dinner Bell program shortly before Christmas. Nursery rhymes and Christmas carols were their featured songs.

10 STAND BY

Photo H. Photographs played a major role in the publication of *Stand By* "In addition to the large cover picture of the *star of the week*, there were pictures of new babies, new personnel, orphanages blessed by the largesse of WLS contributions, women's clothing designs, and electronic gear, such as the station's remote broadcast trucks," Andrew Ooms writes. *(Courtesy of Andrew Ooms)* →

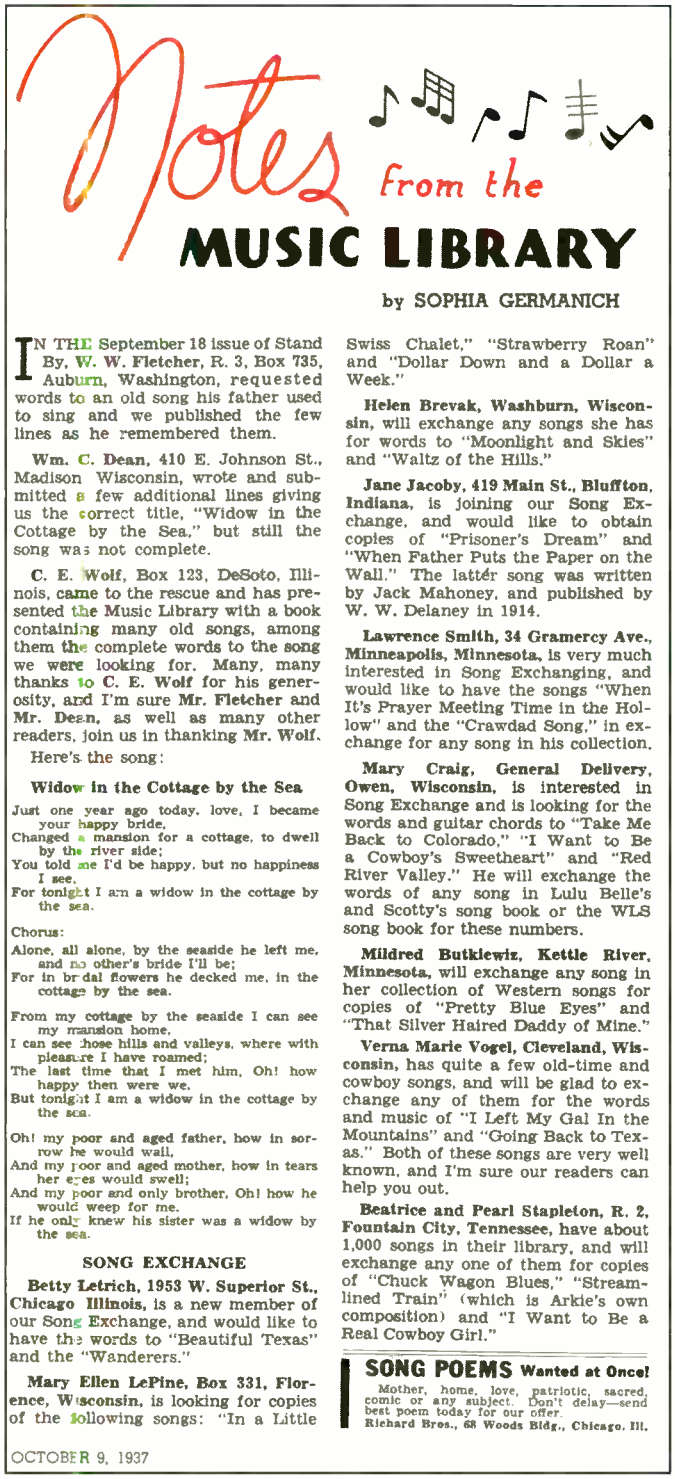
expect many did not care as long as they were hearing something of interest to them.

The WLS broadcast schedule for much of the time-sharing period was:

- Sunday, 7 to 11 a.m. and 5:30 to 7 p.m.
- Monday through Friday, 5 a.m. to 2 p.m. and 6 to 8 p.m.
- Saturday, 5 a.m. to 3 p.m. and 6:30 to 11 p.m.

The daytime gaps and the last evening hours, except for Saturday, belonged to WENR. Although some technical and managerial employees of both stations knew and interacted with each other, the stations were entirely separate entities with offices and studios at separate locations.

Although *Stand By* did not list all the WENR programs, its WLS schedule did show "sign off for WENR" at the appropriate spots.



Notes from the MUSIC LIBRARY

by SOPHIA GERMANICH

IN THE September 18 issue of Stand By, **W. W. Fletcher, R. 3, Box 735, Auburn, Washington,** requested words to an old song his father used to sing and we published the few lines as he remembered them.

Wm. C. Dean, 410 E. Johnson St., Madison Wisconsin, wrote and submitted a few additional lines giving us the correct title, "Widow in the Cottage by the Sea," but still the song was not complete.

C. E. Wolf, Box 123, DeSoto, Illinois, came to the rescue and has presented the Music Library with a book containing many old songs, among them the complete words to the song we were looking for. Many, many thanks to **C. E. Wolf** for his generosity, and I'm sure **Mr. Fletcher** and **Mr. Dean,** as well as many other readers, join us in thanking **Mr. Wolf.**

Here's the song:

Widow in the Cottage by the Sea

Just one year ago today, love, I became your happy bride,
Changed a mansion for a cottage, to dwell by the river side;
You told me I'd be happy, but no happiness I see,
For tonight I am a widow in the cottage by the sea.

Chorus:
Alone, all alone, by the seaside he left me, and no other's bride I'll be;
For in bridal flowers he decked me, in the cottage by the sea.

From my cottage by the seaside I can see my mansion home,
I can see those hills and valleys, where with pleasure I have roamed;
The last time that I met him, Oh! how happy then were we,
But tonight I am a widow in the cottage by the sea.

Oh! my poor and aged father, how in sorrow he would wail,
And my poor and aged mother, how in tears her eyes would swell;
And my poor and only brother, Oh! how he would weep for me,
If he only knew his sister was a widow by the sea.

SONG EXCHANGE

Betty Letrich, 1953 W. Superior St., Chicago Illinois, is a new member of our Song Exchange, and would like to have the words to "Beautiful Texas" and the "Wanderers."

Mary Ellen LePine, Box 331, Florence, Wisconsin, is looking for copies of the following songs: "In a Little Swiss Chalet," "Strawberry Roan" and "Dollar Down and a Dollar a Week."

Helen Brevak, Washburn, Wisconsin, will exchange any songs she has for words to "Moonlight and Skies" and "Waltz of the Hills."

Jane Jacoby, 419 Main St., Bluffton, Indiana, is joining our Song Exchange, and would like to obtain copies of "Prisoner's Dream" and "When Father Puts the Paper on the Wall." The latter song was written by Jack Mahoney, and published by W. W. Delaney in 1914.

Lawrence Smith, 34 Gramercy Ave., Minneapolis, Minnesota, is very much interested in Song Exchanging, and would like to have the songs "When It's Prayer Meeting Time in the Hollow" and the "Crawdad Song," in exchange for any song in his collection.

Mary Craig, General Delivery, Owen, Wisconsin, is interested in Song Exchange and is looking for the words and guitar chords to "Take Me Back to Colorado," "I Want to Be a Cowboy's Sweetheart" and "Red River Valley." He will exchange the words of any song in Lulu Belle's and Scotty's song book or the WLS song book for these numbers.

Mildred Butkiewiz, Kettle River, Minnesota, will exchange any song in her collection of Western songs for copies of "Pretty Blue Eyes" and "That Silver Haired Daddy of Mine."

Verna Marie Vogel, Cleveland, Wisconsin, has quite a few old-time and cowboy songs, and will be glad to exchange any of them for the words and music of "I Left My Gal In the Mountains" and "Going Back to Texas." Both of these songs are very well known, and I'm sure our readers can help you out.

Beatrice and Pearl Stapleton, R. 2, Fountain City, Tennessee, have about 1,000 songs in their library, and will exchange any one of them for copies of "Chuck Wagon Blues," "Streamlined Train" (which is Arkie's own composition) and "I Want to Be a Real Cowboy Girl."

OCTOBER 9, 1937

Photo I. Each week, *Notes From the Music Library* was a place where WLS listeners could share information on their favorite songs — including asking fellow readers for full transcriptions of song lyrics they were seeking. *(Courtesy of Andrew Ooms)*

Station and Network Puzzlement

If listeners cared about stations and networks, they had to pay attention. Besides hearing two sets of call letters on the same frequency, another confusing factor was the NBC Red and NBC Blue network situation.

In the 1940's the Federal Communications Commission ruled that NBC improperly owned two networks, the Blue and the Red. So NBC spun off its Blue Network which was named ABC, the American Broadcasting Company, shortly thereafter and continues as such today.

Before the spin off, NBC moved programs from one of its networks to the other at its managerial discretion. The unofficial practice was that the better programs with the more famous performers and the higher ad rates were on the Red network. Meanwhile, Blue carried the B list. Programs were moved from Blue to Red or from Red to Blue depending on schedule issues, sponsor and listener attitudes, and subjective opinions as to which programs were better than others.

In Chicago, NBC Red was usually carried by WMAQ and NBC Blue by both WENR and WLS. So WMAQ had *Fibber McGee and Molly* while WLS frequently broadcast programs almost no one remembers now. Programs sometimes moved from WMAQ to one of the other two stations and back again.

Adding to the confusion, the first issues of *Stand By* for about a year referred to the NBC New York feed stations, so NBC Red references were printed as *NBC WJZ* and NBC Blue as *NBC WEAF*.

While of not much interest to many listeners, others — such as the kind I would have been — were intrigued by all of this and indicated so by their questioning letters. Obviously one of the greatest services rendered by *Stand By* in addition to publishing its own program schedules, was its printing of some news of other stations, and its network listening suggestions including some Mutual and CBS programs never carried on WLS. Also, the CBS New York flagship station WABC was sometimes mentioned. As the ABC network and company did not exist then, CBS owning WABC was not remarkable. Today it would be puzzling. The New York flagships today are WABC for ABC and WCBS for CBS.

One of the station news items published was that Fort Wayne, Indiana now had two new NBC affiliates: WOWO would be NBC Blue. WLL would have an option of NBC Blue or NBC Red. Even a radio detail hobbyist like me would be puzzled by that time.

After those years of ample NBC possibilities, it is a somewhat remarkable that it has been several years since NBC has had any radio presence whatsoever.

Hey, It's All *Radio*

As readers could readily see, *Stand By* was not bothered in the least by mentioning the competition. Chicago stations mentioned in various contexts included WGN, WCFL (now WMVP), WSBC, WBBM, WMAQ (WSCR now on that frequency), and long-gone stations WOK, WQJ, WBCN, KYW whose call letters now reside in Philadelphia, WGES, WIBO, WAAF, WEBH and the greatly missed by some of us, WJJD.

A diversion here: My favorite call letters at one time or another included WREN, Topeka, because of its musical symbolism <http://bit.ly/RPJqS2>, and WIND, Chicago because of its reference to the magic of sounds being carried through the air. *(**NOTE:** Not too long ago, I found that it was named WIND because its transmitter was originally located in Indiana – IND. That was a bit of a disappointment. – AO.)* Its first call letters were WJKS and it was licensed as a Gary station. *Stand By* refers to it as WIND, Gary.

*(**NEXT MONTH:** WLS's longstanding place in broadcast band DXing and as an entertainment giant with great reach. **ALSO NOTE:** Dan Lux was a source of data for this story. – KPC6PC)*

WLS DAILY PROGRAMS

Saturday, October 9, to Saturday, October 16

870 k.c. — 50,000 Watts

Salty Holmes is lookin' pretty serious about this business of having his picture taken.

Sunday Morning
OCTOBER 10
(CENTRAL STANDARD TIME)

8:00—"Everybody's Hour," conducted by John Baker—WLS Concert Orchestra; Herman Felber; Grace Wilson; Safetygram Contest; "Aunt Em" Lanning; Lawson Y.M.C.A. Glee Club.
9:00—WLS Little Brown Church of the Air, conducted by Dr. John W. Holland; Hymns by Little Brown Church Singers and Helen Jensen, organist.
9:45—Weather; News Report—Julian Bentley.
10:00—"Folks Worth Knowing," by John Baker.
10:30—WLS Concert Hour—Orchestra; Herman Felber; Roy Anderson, soloist.
11:00—NBC—The Southernaires.
11:30—Grace Wilson, "Singing Your Songs."
11:45—Helen Jensen at the Organ.
11:58—Weather Report; Chicago Livestock Estimates.
12:00—Sign off.

Sunday Evening
OCTOBER 10
6:30 p. m. to 8:00 p. m.
(CENTRAL STANDARD TIME)

6:30—NBC—The Bakers' Broadcast with Werner Janssen Orchestra.
7:00—NBC—General Motors Concert—Erno Rapee, conductor.
8:00—Sign off.

Monday to Friday
MORNING PROGRAMS

OCT. 11 TO OCT. 15
(CENTRAL STANDARD TIME)

5:30—Smile-A-While — Prairie Ramblers and Patsy; Arkie; Hoosier Sod Busters.
6:00—Farm Bulletin Board; Weather; Livestock Estimates.
6:15—Smile-A-While—cont'd.
6:30—Mon., Wed., Fri.—"Sing, Neighbor, Sing." (Ralston Purina) (E. T.)
Tues., Thurs., Sat.—Chuck, Ray & Christine and Hoosier Sod Busters.
6:45—Pat & Henry.
7:00—News Report—Julian Bentley.
7:10—Program Review.
7:15—Mon., Wed., Fri.—Pokey Martin & Arkie. (McConnen)
Tues., Thurs., Sat.—Evelyn & The Hilltoppers. (Flex-O-Glass)
7:30—Morning Devotions, conducted by Dr. Holland, assisted by Wm. O'Connor and Howard Peterson, organist.
7:45—Jolly Joe's Pet Pals. (Coco-Wheats)
8:00—Lulu Belle & Scotty. (Foley's Honey & Tar)
8:15—News Report—Julian Bentley; Booking Announcements.
8:30—Prairie Ramblers & Patsy. (Drug Trades)
8:45—Mon., Wed., Fri.—The Hilltoppers. (ABC Washers)
Tues., Thurs., Sat.—Morning Minstrels with Novelodeons, Puddin' Head Jackson, Marpheus Mayfair Manchester, Possum Tuttle and Bill Thall, interlocutor. (Olson Rug Co.)
9:00—NBC—Mary Marlin. (Ivory)
9:15—NBC—Ma Perkins. (Oxydol)
9:30—NBC—Pepper Young's Family. (Camay)
9:45—News Report—Julian Bentley.
9:50—Poultry and Dressed Veal Markets.
9:55—Jim Poole's Mid-Morning Chicago Cattle, Hog and Sheep Market, direct from Union Stock Yards. (Chicago Livestock Exchange)
10:00—NBC—The O'Neills. (Ivory)
10:15—NBC—Road of Life. (Chipso)
10:30—NBC—Vic and Sade. (Crisco)
10:45—NBC—Edward McHugh, Gospel Singer.
11:00—Mon., Wed., Fri.—Virginia Lee & Sunbeam. (Northwestern Yeast)
Tues., Thurs.—Don & Helen.
11:15—Chuck, Ray & Christine and Hoosier Sod Busters. (Finex)
11:30—Mon., Wed.—Priscilla Pride; Howard Peterson. (Downtown Shopping News)
Tues., Thurs., Sat.—"For People Only"—Chuck Acree and Pokey Martin.
Fri.—"Big City Parade." (Downtown Shopping News)
11:45—Fruit and Vegetable Markets; Butter and Egg Markets; Weather; Bookings.
11:55—News Report—Julian Bentley.

Afternoon Programs
(Daily ex. Saturday & Sunday)
(CENTRAL STANDARD TIME)

12:00—Prairie Farmer Dinner Bell Program, conducted by Arthur Page — 45 minutes of variety farm and musical features.
Tues.—Midwest on Parade, featuring Terre Haute, Indiana.
12:45—Mon., Wed., Fri. — "Voice of the Feedlot." (Purina Mills)
Tues.—Federal Housing Speaker.
Thurs.—John Brown, pianist.
12:50—Jim Poole's Livestock Summary direct from Union Stock Yards.
1:00—Prairie Farmer School Time, conducted by John Baker.
Mon.—Current Events.
Tues.—Music Appreciation.
Wed.—Business and Industry.
Thurs.—Touring the World.
Fri.—Good Manners.
1:15—Mon.—Howard Peterson, organist.
Tues. to Sat.—"The Magic Hour." (E. T.) (United Drug)
1:20—F. C. Bisson of U. S. D. A. in Closing Grain Market Summary.
1:37—John Brown.
1:45—Mon., Wed., Fri. — Melody Parade; Orchestra; Sophia Germanich.
Tues., Thurs.—"How I Met My Husband." (Armand)
2:00—HOMEMAKERS' HOUR
2:00—News Report—Julian Bentley.
2:10—Mon., Wed., Fri.—"Something to Talk About"—Chuck Acree. (McLaughlin)
Tues., Thurs., Sat.—WLS Fanfare Reporter—Ed Paul.
2:15—Homemakers' Matinee, conducted by Jane Tucker; Otto & Novelodeons with Buddy Gilmore.
2:45—Home Service Club, conducted by Mary Wright, WLS Home Advisor.
Daily—Fresh Fruit & Vegetable Market.
Mon.—Food Suggestions and Recipes.
Tues.—Parents' Forum.
Wed.—What's What in Fall Styles.
Thurs.—Food Suggestions and Recipes.
Fri.—Homemakers' Exchange.
3:00—Sign off.

Saturday Morning
OCTOBER 16
(CENTRAL STANDARD TIME)

5:30-7:15—See Daily Morning Schedule
7:15—Evelyn & Hilltoppers.
7:30—Dr. John Holland's Sunday School, with Howard Peterson, organist.
7:45—Jolly Joe.
8:00—Lulu Belle & Scotty. (Foley's Honey & Tar)
8:15—News—Julian Bentley; Bookings.
8:30—Prairie Ramblers & Patsy. (Drug Trades)

SATURDAY EVENING, OCTOBER 9
(CENTRAL STANDARD TIME)

7:00—"Meet the Folks"—Behind the Scenes at the National Barn Dance and interviews with visitors. (Mantle Lamp Co.)
7:30—Keystone Barn Dance Party, featuring Lulu Belle. (Keystone Steel & Wire)
8:00—National Barn Dance NBC Hour with Uncle Ezra; Maple City Four; Hoosier Hot Shots; Verne, Lee and Mary; Sally Foster; Arkie; Lulu Belle & Scotty; Lucille Long; The Novelodeons, and other Hayloft favorites, with Joe Kelly as Master of Ceremonies. (Alka-Seltzer)
9:00—Murphy Barn Yard Jamboree featuring Quartet; Grace Wilson; Prairie Ramblers; Patsy Montana; Winnie, Lou and Sally; Pat Buttram. (Murphy Products)
9:30—"Hometown Memories" — Quartet; Grace Wilson; DeZurik Sisters; Hilltoppers. (Gillette)
10:00—"Tall Story Club," with Pokey Martin. (KENtucky Club)
10:30—Coleman Fireside Party, with Henry Hornsbuckle, Prairie Ramblers, Hilltoppers, Arkie, Grace Wilson and DeZurik Sisters. (Coleman Lamp)
11:00—Prairie Farmer-WLS National Barn Dance continues until 12:00 p. m., CST, with varied features, including Patsy Montana; Prairie Ramblers; Otto & His Novelodeons; Pat Buttram; Arkie; Sod Busters; Chuck, Ray & Christine; Bill O'Connor; Grace Wilson; John Brown; DeZurik Sisters; Eddie Allan; Lulu Belle & Scotty; Evelyn & Hilltoppers, and many others.
12:00—Sign off.

Photo J. *Stand By* each week carried the program schedule for the upcoming week. "Surprising by today's standards, a column of additional listening suggestions was carried that listed highlights of programs on other networks and stations," Andrew Ooms writes. *(Courtesy of Andrew Ooms)*

This Month's Feedback from *Pop'Comm* Readers

Pop'Comm appreciates and encourages comment and feedback from our readers. Via email, please write: <editor@popular-communications.com>. Our postal service address is: Editor, Popular Communications, CQ Communications, Inc., 25 Newbridge Rd., Hicksville, NY 11801-2953 USA.

– Richard Fisher, KPC6PC/KI6SN

With Shannon, Absence Makes the Heart Grow Fonder

Editor, *Pop'Comm*,

Shannon's Broadcast Classics is one of the first things I go for in *Pop'Comm*. I've just received the August issue and though I haven't looked through it yet, there seems to be no Shannon in this issue.

What's wrong over there? Maybe you need to pay her more? Is this a test of some kind? Am I going to have to move to a city closer to her? Oh no! Don't tell me she's being nationally syndicated?

– Jim Reed,
Seattle, Washington

(Jim: Thanks for your eagle-eyed observation. Rest assured, Shannon was just taking some vacation time — something all columnists need occasionally. There was a note about it in "Tuning In" on Page 4. Thankfully for August, we had a radio nostalgia pinch hitter with some nice remembrances of the late Dick Clark. The bottom line is that Shannon Hunniwell, WPC1HUN, is still very much with us. In fact, this month's column is a look back at a decade's worth of Shannon's radio memories. Take a cleansing breath. All is well. – Richard Fisher, KPC6PC

Praise for 'Rescue 21,' But Check That Boat

Editor, *Pop'Comm*,

I thoroughly enjoyed Gordon West, WB6NOA/WPC6NOA's July edition article about the U.S. Coast Guard's Rescue 21. I am an ex-Coast Guard pilot from the mid '60s, and after a career as a commercial pilot, I became active in the USCG Auxiliary.

I have crewed on many USCG small boats. I believe Photo B on Page 13 is misidentified as a RIB-Rigid Inflatable Boat. It should be an RBS-Rescue Boat Small.

Keep up the good work.

– Terry Post, WØRPO,
South Bend, Indiana

(Continued on page 71)

A Look @ WK4U's Alinco DX-R8T, And Busting Some QRM in the Shack

By Dan Srebnick, K2DLS <k2dls.rfbits at gmail.com>

"Tim Lemmon, WK4U, is a fan of RF Bits and asked if I wanted to put a new radio through its paces . . . So, I gave the DX-R8T a ride home."

The annual SWL Winterfest <http://www.swlfest.com> concludes each year with the legendary midnight ride of Pancho Villa, the pink and purple pirate. While the ride of Pancho signals the end of a weekend of radio fun, the pinnacle of the weekend for many attendees is the Saturday night raffle. I've come home with some interesting raffle goodies over the years, such as a Par End Fed SWL Antenna, a Select-A-Tenna for medium-wave listening, COAX SEAL®, and some Joe Carr antenna books. Come to think of it, nearly all of my winnings have been antenna related.

The top prizes are usually some very nice receivers that any SWL would be happy to take home. I've seen an ICOM R-75, a Grundig Satellit 800, a Drake R8B, a Winradio, and a Microtelecom Perseus SDR <http://www.microtelecom.it> awarded at the raffle over the past several years.

Photo A. The Alinco DX-R8T receiver is built in the same case as the low-end Alinco transceiver. *(Courtesy of Universal Radio)*

Photo B. It is easy to see the Alinco DX-SR8T transceiver, shown here, and the DX-R8T share a common heritage. *(Courtesy of Universal Radio)*

Tim Lemmon, WK4U, won the Perseus a couple of years ago and is either very lucky, or he must buy a lot of raffle tickets. This year, he won another receiver, a brand new Alinco DX-R8T. Tim is a fan of *RF Bits* and *Popular Communications* and generously asked if I wanted to put a new radio through its paces and write about it for the readers. Always happy to test a new radio, I gave the Alinco a ride home.

Alinco's DX-R8T Receiver

The DX-R8T, **Photo A**, is a bit of a puzzle. It is a digital signal processing (DSP) based receiver with some software-defined receiver (SDR) capabilities. I've had several months to put this interesting entry-level desktop receiver through its paces and can honestly say the DX-R8T is not quite like any other receiver I've recently used.

It's an analog receiver. Its cost is relatively low for a desktop receiver — below $500. It seems to be assembled in the same case as the low-end Alinco HF amateur transceiver, the DX-SR8T, **Photo B**, which sells for just a few dollars more than the receive-only model.

As you can see from **Photos A** and **B**, the receiver case has the cut-out on the front panel where the microphone jack on the transceiver is found. The LED for the transmit/receiver indicator seems to be installed, but the T/R legend is not etched on the case. A 12-volt external power supply is required, again speaking to the ham transceiver provenance of this receiver.

Supported reception modes include SSB, CW, AM, and narrowband FM. Mode is selectable through a single push button on the front panel, just under the power button. A large part of the front face of the radio is taken up by an easy-to-read digital frequency display that also provides a graphical S meter and mode indicator.

The tuning knob has a low-resistance feel and tunes slowly — 10-Hz increments in SSB/CW modes and 100-Hz increments in AM/FM modes. There is no way to change the increment. I find the tuning knob to be functionally unsatisfactory. It performs more like a fine-tuning knob. The radio may also be tuned through use of up/down arrows on the lower right of the front.

The up/down arrow tuning method uses a default of 100 Hz for SSB and 1 kHz for AM, but this can be sped up using the M/kHz button to 1 MHz or 100 kHz for faster tuning. The M/kHz button press results in an inconsistent display. In AM mode, for example, it places an arrow on top of the MHz place for 1 MHz tuning steps but blinks on top of the kHz place for 100 kHz steps and is steady above the kHz place for 1 kHz increments. The radio can be tuned through direct keyboard entry of a frequency, which works as expected.

The front panel features an RIT control. *Receive Incremental Tuning* is normally used on transceivers to slightly vary the received frequency from the transmitted frequency. I can't see any reason why anyone would need such a control for a receive-only radio, so I conclude that this anomaly is a holdover from the transceiver design. There is an IF shift control that can be useful under certain circumstances to evade interference.

The attenuator and preamp status is represented by a scale from -20 dB to +10 dB just above the frequency display. Plus 10 dB on the scale is equivalent to having the preamp switched in and -10 or -20 dB to running in an attenuated mode. Zero dB on this scale represents the default setting for pre-amplification/attenuation.

Testing in my shack showed that sensitivity seems to be subjectively at least as good as my Kenwood TS-2000 on weak signals. Each mode supports a wide/narrow bandwidth selectivity choice, but in the AM mode options were either too wide (9 kHz) or too narrow (2.4 kHz) for my liking. Wide selectivity is "loose." AM signals are fully intelligible several kHz away from the center carrier.

I prefer a 6-kHz nominal bandwidth for casual AM listening in a moderately crowded band. The 9-kHz bandwidth does, however, make for pleasant listening when there is no adjacent interference. SSB selectivity was good enough to listen to a crowded 20-meter band during a recent contest and able to adequately separate signals, a good achievement for any radio.

The receiver offers a slow and fast AGC setting. In AM mode slow was too slow and fast too fast. I would have preferred a setting somewhere in between. The radio lacks any digital signal processing noise reduction. However, through additional software, these two features and some of the other deficiencies noted are addressed.

It's an SDR. The DX-R8T provides 24 kHz * worth of IQ. *(**NOTE:** IQ represents two 90-degree, out-of-phase digital signal outputs which contain the information necessary for a software defined radio to demodulate and present as audio to the listener. – KPC2DLS)*

What the 24 kHz of IQ means to the listener is that at any given time, a 24-kHz-wide portion of spectrum can be displayed in a window on your computer screen. There is an IQ output on the rear panel of the radio that is patched to the input of a computer sound card through a standard audio cable and feeds the software. This is a low cost, yet practical approach to interfacing the DX-R8T with the computer. In addition to the audio cable for IQ, software control also requires a custom cable (ERW-7) also called a *cloning cable* by Alinco. This cable features an audio connector on one end and a USB connector on the other.

Alinco provides free software that can

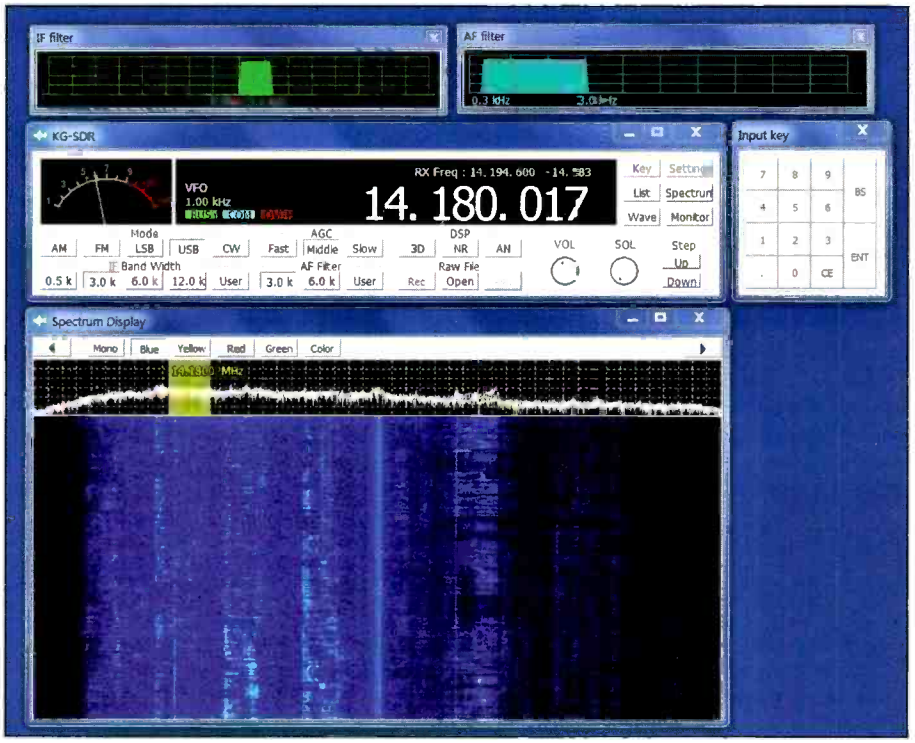


Figure 1. As can be seen in this KG-SDR screenshot, this is very basic SDR software.

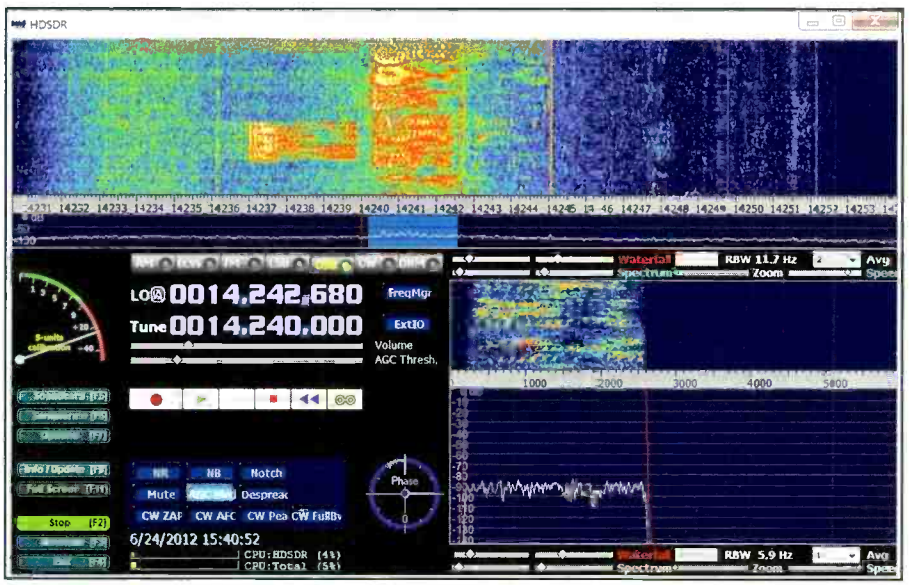


Figure 2. The Alinco DX-R8T receiver can feed a third-party SDR program, as well. In this case, it's HDSDR. *(Computer screen shot)*

be downloaded from the Internet. It is fairly rudimentary compared to other SDR programs that I have used and is called KG-SDR, **Figure 1**.

KG-SDR may be downloaded at <http://bit.ly/PMf0e4>. Its rudimentary nature has an upside. It will run on an older, single-core Celeron-based computer.

A capable SDR can sample up to 2 or 4 MHz of spectrum at once. Just as this radio can only sample 24 kHz at one time, this radio also does not have a wide dynamic range approaching that of the Perseus or a Winradio Excalibur/Excalibur Pro. The limiting factor here is that the IQ is being fed into a general-purpose external sound card.

The KG-SDR software is a bit flaky. It sometimes hangs on load, requiring a reboot of the computer. This could have something to do with the ERW-7 drivers for the control cable but I was not able to adequately diagnose the cause. WK4U notes that he didn't run into this issue on his computer.

The DSP Noise Reduction (NR) is not too bad, but suffers from the hollow rushing sound effect endemic to inexpensive DSP NR. The SDR autonotch function was not very good, turning signals to hash. The AGC is either too fast or too slow in analog mode, but KG-SDR gets this right and offers a medium attack for AGC, which is just right.

Flexible software options. The most intriguing aspect of this radio is its openness. Because the IQ signal can be fed directly into a sound card, any SDR program that will recognize the sound card can be used. This opens up the possibility of using free software such as HDSDR <http://www.hdsdr.de> as a panadapter display.

According to its website, HDSDR is useful for general radio listening, ham radio, SWL, radio astronomy, NDB-hunting, and spectrum analysis. HDSDR (formerly WinradHD) is an advanced version of Winrad, written by Alberto di Bene, I2PHD, <http://bit.ly/Ns98dR>. HDSDR runs under Windows®.

HDSDR has a slick graphical interface, **Figure 2**, which outperforms KG-SDR. However, there is a downside to running HDSDR with the Alinco. While computer control for a number of radios is supported, the Alinco is not. The IQ output of the Alinco can be fed to the sound card and decoded very nicely by HDSDR, but there is no way for HDSDRD to know what frequency the radio is tuned to. There are ways to work around this through manual frequency entry in the software but otherwise you'll have to figure out what frequency you're tuned to by observing the display on the radio and doing some arithmetic.

The DSP NR of HDSDR works much better with the DX-R8T than does the KG-SDR NR. HDSDR lacks the hollowness created by KG-SDR.

A Linux devotee could use the free Linrad software, <http://bit.ly/Ns9kd4>, which can be made to run under Windows®, as well.

The radio has 200 memories for those who find this valuable on a general-coverage receiver. I don't ever find myself using this functionality, but the folks at Alinco did preload a number of memories with the frequencies of WWV, NHK, and some Volmet aviation weather stations.

Based upon the low cost and reasonable price/performance ratio, the Alinco DX-R8T ought to gather some support from the free software community, which will make it more usable with some of the free SDR tools available. While a fairly basic performer in analog mode, the IQ output capability transforms this entry-level desktop receiver into a radio with real possibilities.

So, Tim, my take on the DX-R8T is that it is an unusual radio indeed, one with a lot of aftermarket potential. It will be interesting to see if either Alinco or the radio software development community comes out with an open radio control driver that supports the Alinco command set.

Banish the QRM . . .

Playing with the Alinco helped me to troubleshoot and cure a noise problem in my shack. At first I thought it was a spur in the radio. Both the KG-SDR and HDSDR software had a horrible low-frequency buzz that showed up right at the midpoint of the 24-kHz IQ range in each case. For weeks I could not figure out where it was coming from, and sometimes I would hear it faintly on one of the other radios in the shack. As I was finishing up the column, I shut down the Alinco while HDSDR was still running. The spur was still heard through the sound card and seen on the waterfall display. I disconnected the antenna. Still the spur was there.

I then turned off the Ameritron RCS-4 remote antenna switch. *Spur gone.* It turns out the culprit was the MFJ wall wart that powered the antenna switch. I tried to suppress the noise with a ferrite core, winding the power cable around the core a number of times, to no avail.

So I hooked up a DC power cable to some Anderson Powerpoles and plugged the antenna switch into my Rig Runner. *Problem solved? Uh, not quite.*

The noise was gone, but the remote switch was *acting strangely.* What I failed to notice until this point is that while the wall wart supplies 12 voltts, it is 12 volts AC! Fortunately, when I reconnected the power cube I must have either positioned it differently or run the power cable differently, because the noise is now gone. And fortunately for me, this oversight did not activate the magic smoke in the antenna switch!

– 73 de KPC2DLS

* In comparing notes, WK4U mentioned that KG-SDR led him to believe that the radio had 48-kHz worth of IQ output. It seemed that way to me at first, but I noticed that the output was seriously attenuated beyond 12 kHz in each direction from the center frequency. HDSDR confirmed a usable bandwidth of only 24 kHz.

The DXpedition Experience: Adventure, Experimentation, Camaraderie

by Bruce A. Conti, WPC1CAT
<contiba@gmail.com>

"Gary DeBock credits saltwater propagation, high cliff altitude, and ferrite sleeve loop antenna technology for a successful DXpedition."

AM broadcast band DXpeditioners seek out prime oceanfront locations to take advantage of sea gain long-distance medium wave reception enhanced by the high conductivity of saltwater.

However we intrepid DXers often encounter more than strong radio signals. Local authorities, wildlife, and weather are all known to conspire against us. Here are three accounts that demonstrate the adventure, experimentation, and camaraderie typical of a DXpedition.

Selected logs follow the accounts, highlighting the transpacific, tropical, and transatlantic reception specific to each coastal site. All times are UTC.

Oregon Cliff Hanger

Ultralight DXers Gary DeBock, N7EKX, and Norman Clark set up equipment along a narrow roadside turnoff on the busy U.S. 101 coastal highway, **Photo A**, perched precariously atop the sheer cliffs of Cape Perpetua, Oregon, **Photo B**. This has to be one of the most dramatic AM broadcast DXpedition locations in North America. The predawn hours are primetime for transpacific AM broadcast DXing, which is when we find N7EKX exploring in the dark for the penultimate site.

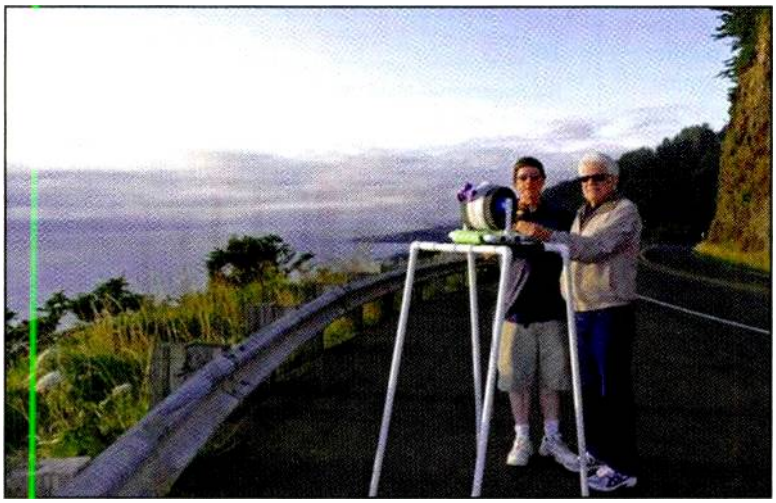


Photo A. Gary DeBock, N7EKX, and Norman Clark at their remote roadside cliff DX site with the Tecsun PL-380 receiver and ferrite sleeve loop antenna. *(Courtesy of N7EKX)*

"I eagerly scrambled around the entire Cape Perpetua area in search of the perfect high altitude DXing spot," said N7EKX. "One immediate problem was that the highest areas were designated *Day Use*, although since no starting time was given, I was willing to push my luck and go up to the top of the Cape in the darkness each early morning.

"The main problem with this strategy was that the 800-foot level was not only isolated, dark, and of dubious security, but prone to severe winds and rain. Thick forest surrounded the narrow clearing at the top of the Cape, giving a DXer the distinct impression that he was about to be evicted by a pack of grizzly bears or herd of elk in the early morning darkness.

"There was a fallback position at the Highway 101 roadside point of highest elevation, which although much lower in elevation at least had less wind, and presumably some protection from wild animals. It was a tough choice to make, and early the first DXing morning I actually visited both sites for a trans-Pacific signal comparison in the predawn darkness.

"Unfortunately the 800-foot level was being hit by both thunderous rain and stiff wind at the time, making it very risky to set up the 8-inch ferrite sleeve loop antenna on its base. In the complete darkness shadows seemed to jump around the thick forest, giving me the distinct impression that angry mountain lions were forming for the charge.

"It soon became obvious that whatever theoretical DXing gain this lofty turf had to offer, it was just not worth the hassle of confronting nasty weather, wild animals and maybe even wild humans. So the final decision was made to DX at the Highway 101 roadside turnoff which fortunately provided much calmer weather, no wild animals and all the altitude gain necessary for a very thrilling DXpedition, with no AC power, water, lights, or roof!"

The Clark and DeBock DXpedition team was rewarded for its efforts by exceptional trans-Pacific signals. The local-like strength of New Zealand radio stations was most memorable.

Photo B. The view from atop the cliffs of Cape Perpetua, Oregon. *(Courtesy of N7EKX)*

DeBock credits the triple advantage of saltwater propagation, high cliff altitude, and ferrite sleeve loop (FSL) antenna technology for a successful DXpedition. *Let's not forget the perseverance of the team!*

531 PI Auckland, New Zealand: The Kiwi-slanted propagation allowed this Samoan language station to dominate the frequency without the usual Australian competition.

567 Radio National, Wellington, New Zealand: A regular every morning on the cliff, with a mix of news, interviews and music, parallel 675 kHz. This was usually the first New Zealand station to fade in around 1200 UTC.

603 Radio Waatea, Auckland, New Zealand: Maori-language music and news, this lower powered station was quite vibrant during good Kiwi conditions. One of the best Down Under signals throughout the DXpedition.

639 Radio National, Alexandra, New Zealand: The demise of Radio Fiji One on the frequency allowed this low-power relay to be heard at a fair level most mornings.

675 Radio National, Christchurch, New Zealand: The second strongest signal of the RN network after 567 kHz, it frequently pounded in during favorable propagation.

738 RFO Mahina, Tahiti: A French language blowtorch almost every morning, this station frequently tested the PL-380 crunch resistance. One of only two stations not from New Zealand to make the grade as one of the top ten Down Under signals during this DXpedition.

765 Radio Kahungunu, Napier-Hastings, New Zealand: The booming signals from this low-powered Maori language broadcaster almost reached science fiction levels, and it was probably the biggest surprise of the entire trip. Part of the mystique was that this station has apparently never been received at the famous Grayland DXpedition site in Washington State.

774 JOUB Akita, Japan: Its 500 kilowatts boomed in one morning before the Down Under signals reached peak strength and strangely this was the first trans-Pacific signal received by Norm Clark on his Tecsun PL-380 and 5-inch FSL antenna. Other than that it was gone for the duration of the DXpedition.

828 Radio Trackside, Palmerston North, New Zealand: Another low-powered Kiwi station with amazing signals and missing from any Grayland logs. Aided by bizarre propagation shutting out Australian stations, it typically ruled this frequency with its horse racing info,

This Month in Broadcast History

75 Years Ago (1937): The NBC Symphony Orchestra was formed by RCA President David Sarnoff exclusively for the radio network to promote cultural programming in the public interest. *Popular Science* magazine featured a new automotive option that allowed for tuning of the car radio from the back seat using a knob mounted on the rear side panel and attached to the radio by an internal flexible shaft.

50 Years Ago (1962): Congress proclaimed November 4-10 as National Country Music Week. *Mama Sang a Song* by Bill Anderson reached number one on the 1010 KSAY San Francisco *Top 20 Western Hit Parade*. (***WATCH and LISTEN:*** *To Bill Anderson, with The Whites, perform Mama Sang A Song live,* ***Photo A.*** *<http://bit.ly/OjjNE1>. – WPC1CAT)*

25 Years Ago (1987): Gunmen set fire to the Radio Lumiere AM transmitter site in Port-au-Prince, Haiti, knocking the station off the air just days before the first free elections in over 30 years were to be held. AM radio stations licensed for daytime-only operation in the U.S. were finally given pre-sunrise authority to sign on at 6 a.m. with power as low as 10 watts, this after the FCC approved a rule change in October. – *WPC1CAT*

Photo A. Fifty years ago, Congress proclaimed the beginning of November 1962 *National Country Music Week*. Bill Anderson's *Mama Sang A Song, <http://bit.ly/OjjNE1>*,was No. 1 on the KSAY hit parade. *(Internet screen grab)*

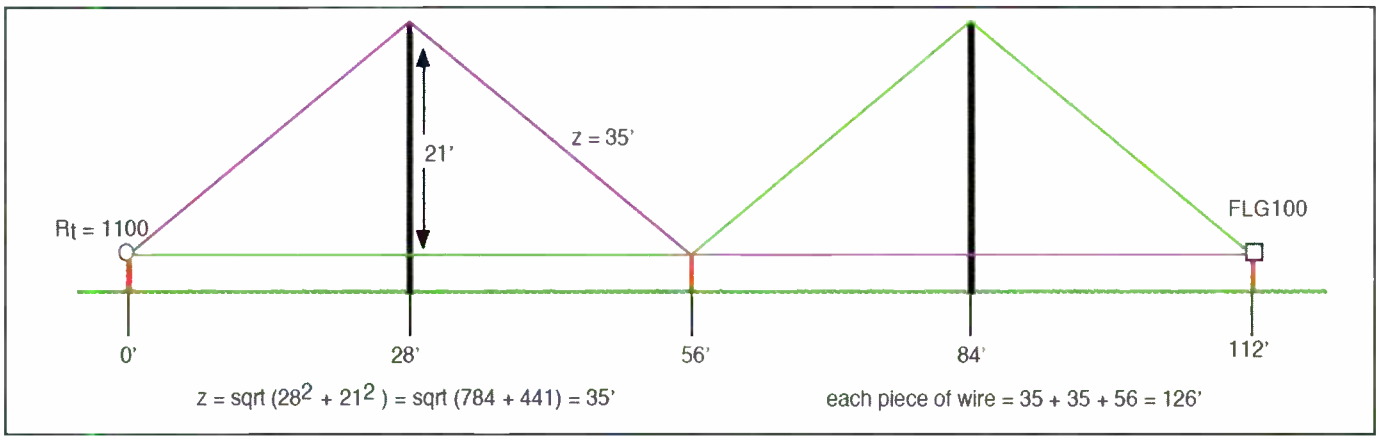


Photo C. Design drawing of an Extended Double Delta antenna with formulas for size calculations. *(Courtesy of Whitacre)*

and was one of the ten strongest Down Under signals overall during the trip.

891 5AM Adelaide, Australia: Far and away the most powerful Australian signal, the sole Aussie to peg the PL-380 display at 25 maximum, apparently benefiting from its central Australia location while eastern Australia was down in the noise.

1008 Newstalk ZB, Tauranga, New Zealand: One of the stronger Kiwi signals, but its proximity to a 1010-kHz domestic station saddled it with a 2-kHz het on the PL-380 receiver.

Virginia Is For DXers

A DXpedition often provides an opportunity to experiment with large antennas designed for reception of signals at long wavelengths. The wavelength of 530 kHz at the low end of the AM broadcast band is just over 1,856 feet!

On a solo DXpedition to a Virginia shore cottage overlooking Chesapeake Bay, Bill Whitacre experimented with the Extended Double Delta broadband terminated loop antenna, also known as the "D-Kaz," **Photos C** and **D**, named for its developer Neil Kazaross.

The antenna was aimed southeast over the mouth of the bay toward the Caribbean and Latin America. So close to the RF-crowded northeast corridor of Washington D.C., Baltimore, and Philadelphia, this may not appear to be the best location, but the unidirectional beam antenna and directive saltwater path proved to be a successful combination.

"*Get me to the coast!*" goes the cry from trans-Atlantic and trans-Pacific DXers, Whitacre wrote. "Turns out the same could be yearned for by Latin American DXers and I found such a place just a few hours' drive from my home in Alexandria, Virginia.

"Once I weeded through the lightning noise, Bay House, near Reedville, Virginia on the Chesapeake Bay turned out to be a great place to hear stations from Florida to Argentina. Particularly so with a good antenna pointed at 150 degrees and terminating resistance tweaked to get maximum null off the backside.

"In the world of Perseus TiVo DXing, you often don't know how good or bad a DXpedition was until you return home. So it was with my first visit to Bay House. I didn't know, for example, that in one of the early morning, top-of-the-hour .WAV files was a recording of Radio Primero de Marzo from Paraguay in the Guarani language or that there were three Argentine and eight Brazilian stations waiting to be heard and identified.

"Since coming back to the hobby a few years ago after a 30-year hiatus, I've found that technology has changed. Not only do I connect my SDR radio to a computer now but I also keep my 'logs' there. In fact, my 'logs' are the actual sounds of the stations I heard presented on a webpage through links kept in a database.

"If you visit my DXpedition webpage, <http://bit.ly/Pk03Ur>, you'll find information about where Bay House is located, what an extended DKaz antenna looks like, summary stats of how many stations I heard from various areas, a map of the stations heard and something called an *AzGraph* that shows

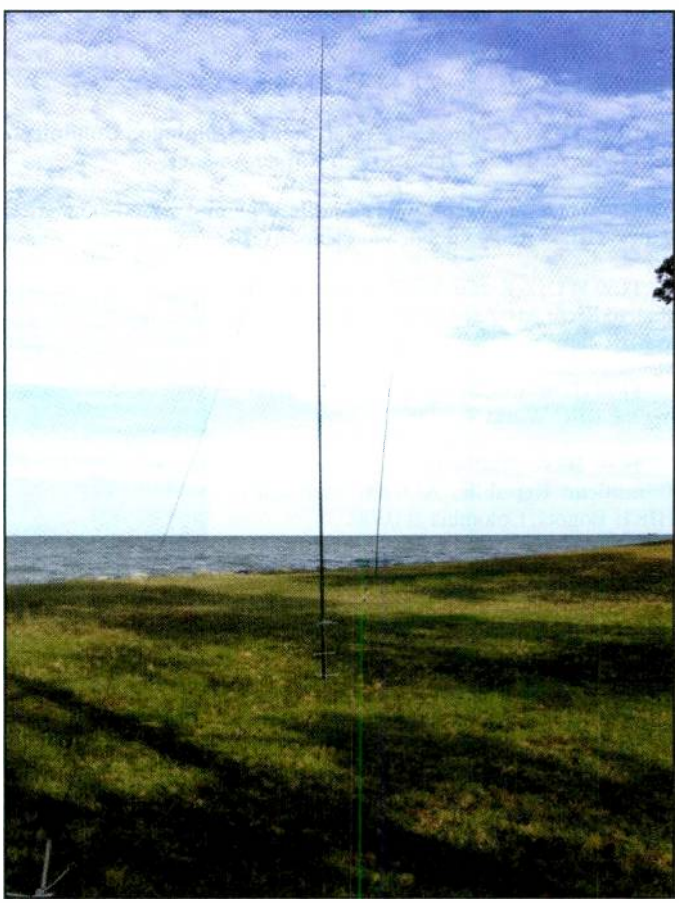


Photo D. The Extended Double Delta antenna aimed toward the mouth of the Chesapeake Bay at the Reedville, Virginia DXpedition site. *(Courtesy of Whitacre)*

a count of how many stations were heard in a given range of azimuth — very useful for gauging how well an antenna worked.

"I'd like to thank the *RealDX* email list where I received lots of help in IDing many of the more difficult catches. And thanks to Neil Kazaross for designing the *Extended DKAZ* antenna used on this and other recent DXpeditions. It is the best single-element antenna I've ever used."

550 YVKE Mundial, Caracas, Venezuela: At 0700 and 0900 with *Radio Rebelde*, Cuba also audible.

600 WYEL Mayaguez, Puerto Rico: At 0500 parallel 580 WKAQ, heard under *Radio Rebelde*, Cuba.

650 HJKH Antena Dos, Bogotá, Colombia: At 0900 with co-channel Cuba also audible.

700 HJCX Cali, Colombia: At 0100 with *W Radio*, also heard ZYH500 Radio Cultura, Feira de Santana, Brazil, and LV3 Radio Cordoba, Argentina on this frequency.

780 ZP70 Radio Primero de Marzo, Asunción, Paraguay: At 0900 in Guarani, one of two main languages spoken in Paraguay per Henrik Klemetz at RealDX.

830 HIJB Santo Domingo, Dominican Republic: Logged at 0100 and 0300, then heard Radio AM 830, San Antonio de los Altos, Venezuela at 0500.

880 Radio Paraguana, Punto Fijo, Venezuela: Logged at 0300, then Radio Venezuela, Puerto Ordaz over/under co-channel WCBS at 0700.

950 HIIG Radio Popular, Santo Domingo, Dominican Republic: At 0100 under *Radio Reloj*, Cuba.

1010 HIJA Radio Comercial, Santo Domingo, Dominican Republic: At 0100 with news from Voz de América.

1100 HJAT Caracol, Barranquilla, Colombia: At 0900 mixing with ZYK694 Radio Globo, São Paulo, Brazil.

1130 WOIZ Radio Antillas, Guayanilla, Puerto Rico: At 0700 heard under co-channel WBBR New York.

1160 Hamilton, Bermuda: At 0500 relaying the BBC World Service.

1430 HIJC Radio Emanuel, Santiago, Dominican Republic: At 0100, then heard HJKU Bogotá, Colombia at 0300.

1500 VYRZ Radio Dos Mil, Cumaná, Venezuela: At 0100 with "música tradicional venezolana." Thanks to Henrik Klemetz for help with ID.

1610 The Valley, Anguilla: At 0100 heard relaying *Cool 103.3 FM*.

1630 Radio Diagonal, La Plata, Argentina: At 0100 heard "En la punta del dial, 1630 Diagonal," with thanks to Valter Comuzzi at *RealDX* for help with the ID.

DXing with Marconi

It's a rare opportunity to have a prime seaside venue available to host a group of radio enthusiasts for an AM broadcast DXpedition. The Chatham Marconi Maritime Center (CMMC) located at the historic WCC site on Cape Cod, Massachusetts opens the doors of the Marconi Wireless Operations Building for one evening during the tourist off-season for what has now become an annual event.

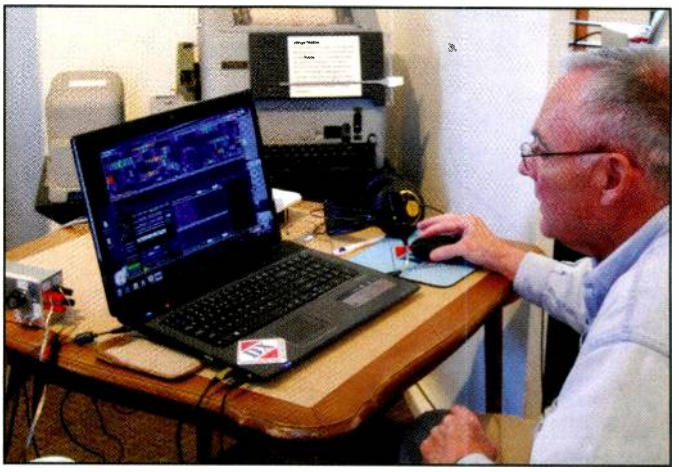


Photo E. Chris Black, N1CP, demonstrates the Perseus using third-party HDSDR software during the Marconi Wireless DXpedition. *(Courtesy of WPC1CAT)*

Thanks to Chris Black, N1CP, **Photo E**, who did all the preliminary legwork in reserving the CMMC and having a Delta terminated broadband loop antenna ready, and to Bob Ryder of the CMMC who opened the Marconi operations building for the second annual DXpedition, **Photo F**.

After a few final adjustments including a slight redirecting of the Delta and the addition of an inline RF amp by Mark Connelly, WA1ION, six DXers were all up and running. An additional few hundred feet of wire was rolled out on the ground for phasing against the Delta, but it really didn't make much difference once the trans-Atlantic signals started rolling in at this outstanding and historic DX location.

Photo F. Museum display of an RCA AR-88 radio operator's station in the Marconi Wireless Operations Building of the Chatham Marconi Maritime Center. *(Courtesy of WPC1CAT)*

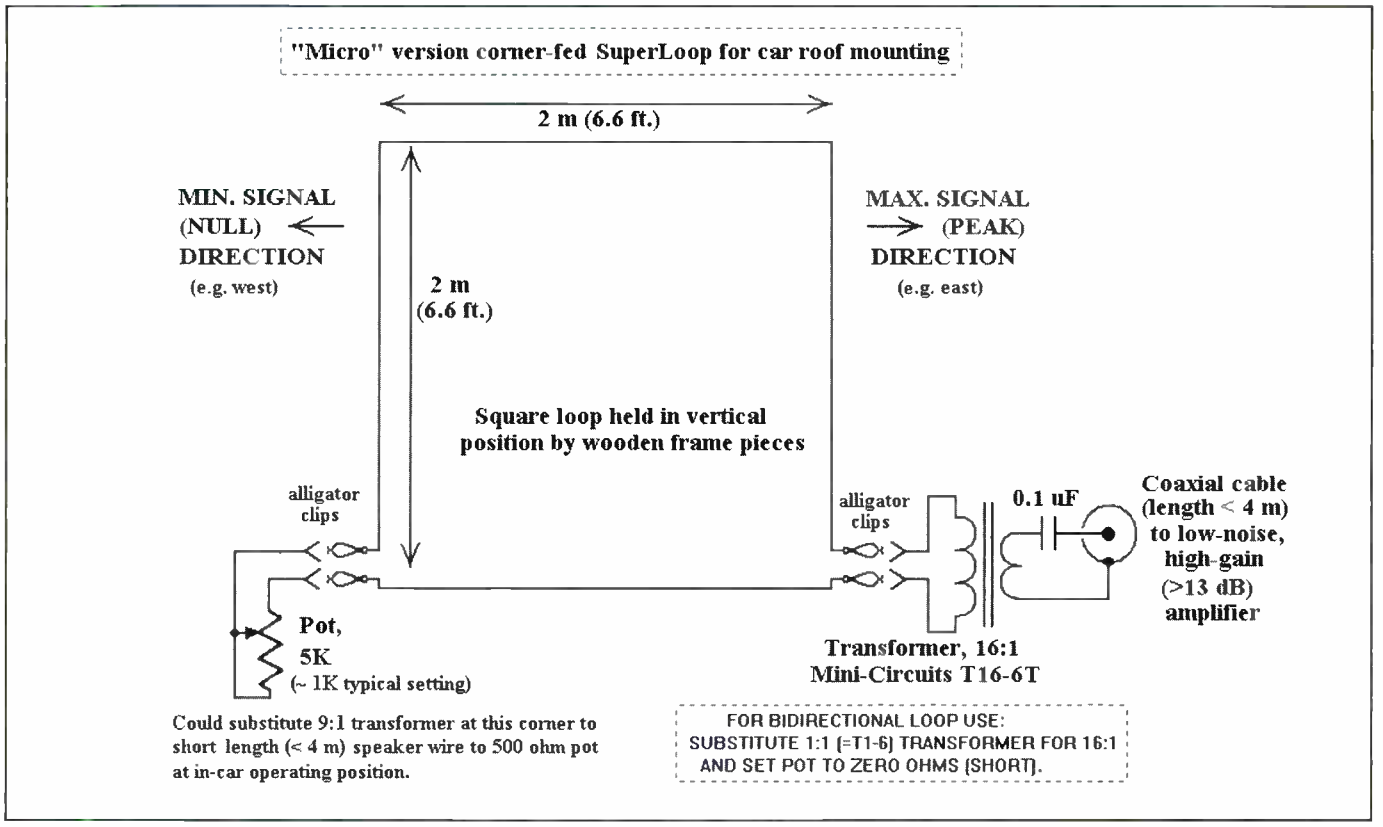


Photo G. Design drawing of the car rooftop mounted *micro* SuperLoop antenna used by Roy Barstow during the Marconi DXpedition. *(Courtesy of Mark Connelly)*

It was an awesome show of high technology under the shadow of Marconi with four Perseus SDR receivers in operation, while I was on the scene with the lone WiNRADiO Excalibur SDR.

While DXing with his ICOM 746 Pro, Bill Kretschmer, N2KNL, also evaluated the SDR receivers in action as he was considering an upgrade. Steve Wood ran his Perseus out of the box for the very first time. Chris Black and Mark Connelly assisted Steve with loading the software and getting started, and that was basically the last we heard from Steve for the remainder of the evening as he explored all the exciting Perseus features.

Not to be outdone, old-school DXing was well represented by Marc DeLorenzo with the classic Japan Radio NRD-525 general coverage communications receiver. Meanwhile, Roy Barstow was testing his new mobile *micro* SuperLoop antenna, **Photo G**, and Perseus configuration in the parking lot with help from Mark Connelly who had apparently defaulted to the role of lead technology specialist for the DXpedition. Of course, just like in the days of Marconi, the focus of this DXpedition was across the Atlantic.

595 SNRT Oujda, Morocco: At 2200 noted this off-frequency carrier, although not showing much for audio in 590 WEZE Boston interference.

783 Radio Mauritanie, Nouakchott, Mauritania: At 2120 in African-accented Arabic clearly parallel shortwave 7245 kHz.

936 IRIB Radio Iran, Urumiyeh, Iran: At 2210 with Middle Eastern music parallel 1503 kHz.

954 Cesk_ Rozhlas, Czech Republic: At 2300 signing off with instrumental national anthem.

963 Radio 86, Pori, Finland: At 2059 CRI program with Chinese orchestral music, mixing with apparent Spain

Pop'Comm November 2012 Reader Survey

Your feedback is important to us at *Pop'Comm*. It helps guide us to make the magazine even more valuable to you each month.

Please take a few minutes to fill out this month's Reader Survey Card and circle the appropriate numbers corresponding to the questions below. We'll pick a respondent at random for a year's free subscription or an extension of an existing subscription as thanks for your participation — so don't forget to fill in your mailing address and other contact information.

We encourage your comments and suggestions in the space provided, as well. Thank you.

Last, but not least: You can now take this survey online. See details below.

As we head into the holiday season, do you expect to be buying communications gear for your listening post or for that of someone else?

Yes 1
No 2
Not sure 3

When was the last time you purchased new (or used) gear or accessories for your SWL or scanning shack?

Within the last year 4
In the last two years 5
Within the last five years 6
Within the last decade 7
Can't remember 8
Never 9

If you had $1,000 to put toward your communications hobby, on what would you spend it? (Choose all that apply.)

New conventional receiver 10
New software-defined receiver 11
Used vintage receiving gear 12
Computer for dedicated online broadcast streaming 13
Antenna and/or tuning accessories 14

If the previous question did not touch on gear for your specific interests, what gear would that be? (Please use the comment line)

How much of a role does the state of the U.S. economy play in your communications gear buying decisions?

A major role 15
Somewhat of a role 16
A small role 17
No role whatsoever 18

Take This Reader Survey Online

You can now participate in this reader survey via the Internet. Simply go to *Pop'Comm On the Web*: <http://www.popcomm-magazine.blogspot.com/> and click the link to the *Pop'Comm November 2012 Reader Survey*. It's quick and easy.

For November, the Envelope, Please!

For participating in the *Pop'Comm Reader Survey*, the winner of a free subscription or extension is **Melanie Reap, KDØNTM**, of **Winona, Minnesota** who writes that her biggest thrill as a communications hobbyist has been "pulling in St. Helena on my Radio Shack DX 390." *Congratulations, Melanie. Continued success on your SWLing journey! – KPC6PC*

999 Voice of Russia, Maiac, Moldova: At 2100 time marker and "Golos Rossii, Novosto" into news, over *COPE* Spain.

1035 Star FM, Belmonte, Portugal: At 2301 jingle into pop music through heavy 1030 WBZ Boston interference.

1062 Rai Radiouno, Italy: At 2300 signing off with announcement and usual test tones.

1098 Radio Nacional de España, Spain: At 2300, "Son las doce de la noche" time check into news parallel 1107 and 1125 kHz.

1143 Voice of Russia, Bolshakovo, Kaliningrad: At 2100, "Golos Rossii, Radyo," chimes and time marker.

1179 Radio România Actualitati, Galbeni-Bacau, Romania: At 2300 with orchestral vocal, ID, and time check into news.

1215 Voice of Russia, Bolshakovo, Kaliningrad: At 2059 signing off with contact info in English, leaving co-channel *Absolute Radio* United Kingdom and *COPE* Spain in clear.

1296 Radio XL, Langley Mill, United Kingdom: At 2200, "On digital and 1296 AM, this is Radio XL."

1341 BBC Radio Ulster, Lisnagarvey, Northern Ireland: At 2300, "On 92 and 95 FM, and 1341 medium wave, this is BBC Radio Ulster."

1394.85 TWR Fllakë, Albania: At 2029 contact info and one cycle of the TWR interval signal.

1431 Radio Sawa, Arta, Djibouti: At 2100 heard ID and contemporary music in heavy 1430 WKOX interference.

1440 RTL Marnach, Luxembourg: At 2300 in English, "This is CRI . . . Beijing" and news from "China Radio International," over/under WRED.

1521 BSKSA Duba, Saudi Arabia: Logged at 1938 and as usual the first trans-Atlantic signal to produce audio, nearly an hour before Cape Cod sunset.

1530 Voice of America, Pinheira, São Tome: At 2100, "This is the Voice of America, Washington DC, signing off."

1548 BBC Radio Bristol, Mangotsfield, United Kingdom: At 2200, "Across the west on FM, DAB, and online, BBC Radio Bristol," and "BBC News at 10 O'clock," over co-channel Kuwait and Moldova.

Internet Connections

- Learn about the CMMC and its educational initiatives at <http://www.chathammarconi.org>. Please consider supporting the CMMC by becoming a member.
- Go to <http://bit.ly/NxwiK4> for a Pacific coast DXpedition report by Bill Whitacre.
- Watch video from the Cape Perpetua, Oregon cliffs at <http://bit.ly/Tji9Tc> and the DXpedition at <http://bit.ly/RS8tUP>.
- Check out more DXpedition accounts with logs and photos at <http://www.bamlog.com>.

– 73 and Good DX, WPC1CAT

The Little Green Books That Make Sense of it All

By Bill Hoefer,
KPC4KGC/WPE4JZZ/
KG4KGC
<flacap388@gmail.com>

"The FAA's Airport/Facility Directory is quite handy for aviation scanners, containing a mind-boggling number of frequencies for airports across the United States."

Though there are plenty of websites available for aviation frequencies, I've found that many haven't been updated for a bit — in some cases *years*. And, unless you have a smart phone handy that can access the Internet, you could be out of luck in finding these frequencies.

So here's my remedy: The FAA publication *Airport/Facility Directory (A/FD)*. This little green book is quite handy. There are seven published by the FAA covering the lower 48 states, Puerto Rico, and the U.S. Virgin Islands. There are two orange books, as well: One for Alaska and another for Hawaii.

We'll be using two of them for demonstration in this month's *Plane Sense*.

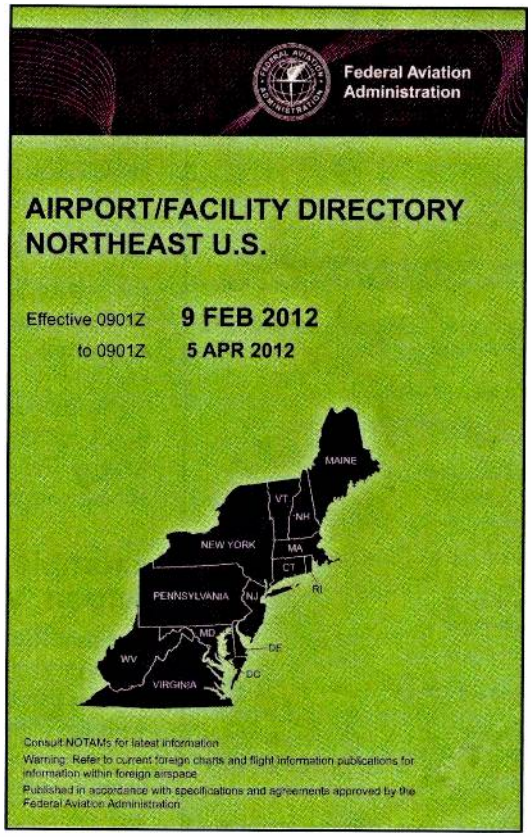


Photo A. The FAA publication *Airport/Facility Directory (A/FD)* for the Northeastern U.S. covers Connecticut, Washington D.C., Delaware, Massachusetts, Maryland, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Vermont, and West Virginia. *(Courtesy of KPC4KGC)*

The Northeast U.S. directory covers Connecticut, Washington D.C., Delaware, Massachusetts, Maryland, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Vermont and West Virginia, **Photo A**.

The Southeast U.S. directory covers Alabama, Florida, Georgia, Kentucky, North Carolina, South Carolina, and Tennessee, as well as Puerto Rico and the U.S. Virgin Islands.

These books are published every eight weeks and while each edition updates their frequencies, there's really no need to get each one as printed. Each one currently sells for $5.30. A year's worth is $35.10, which can mount up after a bit, so purchasing one every few editions may be to your advantage. You can get them at most airports that have pilot training. Larger airports, such as Atlanta Hartsfield, Denver International, John F. Kennedy International, and so on, don't carry them.

Interpreting What You Read

When you first open your *A/FD* you may be a little confused if you go to the pages for a particular airport. *Where are the frequencies? What are they used for? What's ATIS or AWOS?*

Well, let's look at page 4 of any *A/FD* — the first of 18 pages of the Directory Legend. What you need to learn is on page 4, **Photo B**. All other pages in the Legend describe in detail what can be seen in a typical airport.

As you can see, there are up to 35 different items that can be found on a typical page. *Do not be alarmed!* Few airports have all this information. The sections that you're most concerned with are:

Numbers 1-3: Airport name, alternate name and ICAO identification. Obviously at larger cities you may find numerous airports. For example in Orlando — my hometown — you will find Orlando Executive (ORL), Kissimmee Gateway (ISM), Orlando International (MCO), and Orlando Sanford International (SFB). (For you pre-Disney residents of Orlando you may remember them as Herndon, Kissimmee, McCoy AFB, and Sanford NAS. *(**NOTE:** I'm really dating myself there! – KPC4KGC)*

Number 4: Indicates if the airport is public, private, military, or joint civilian and military.

Number 8: Shows on which aviation charts this airport can be found — *sectional, copter,* and

low and *upper level en-route*. Consider picking up at least the sectional chart when you buy the *A/FD*. *(**NOTE:** In the case of the Orlando area, you'd need two — one for Jacksonville and one for Miami. I'll deal with these charts in a later column. – KPC4KDC)*

Number 10: A thumbnail map of the airport. As you look through the *A/FD* you'll see many airports do not have the map. If you look at the back of the guide you will find full page maps of many of these airports in greater detail.

Numbers 31, 32, 34, and 35: These list frequencies of particular interest to aviation scanners.

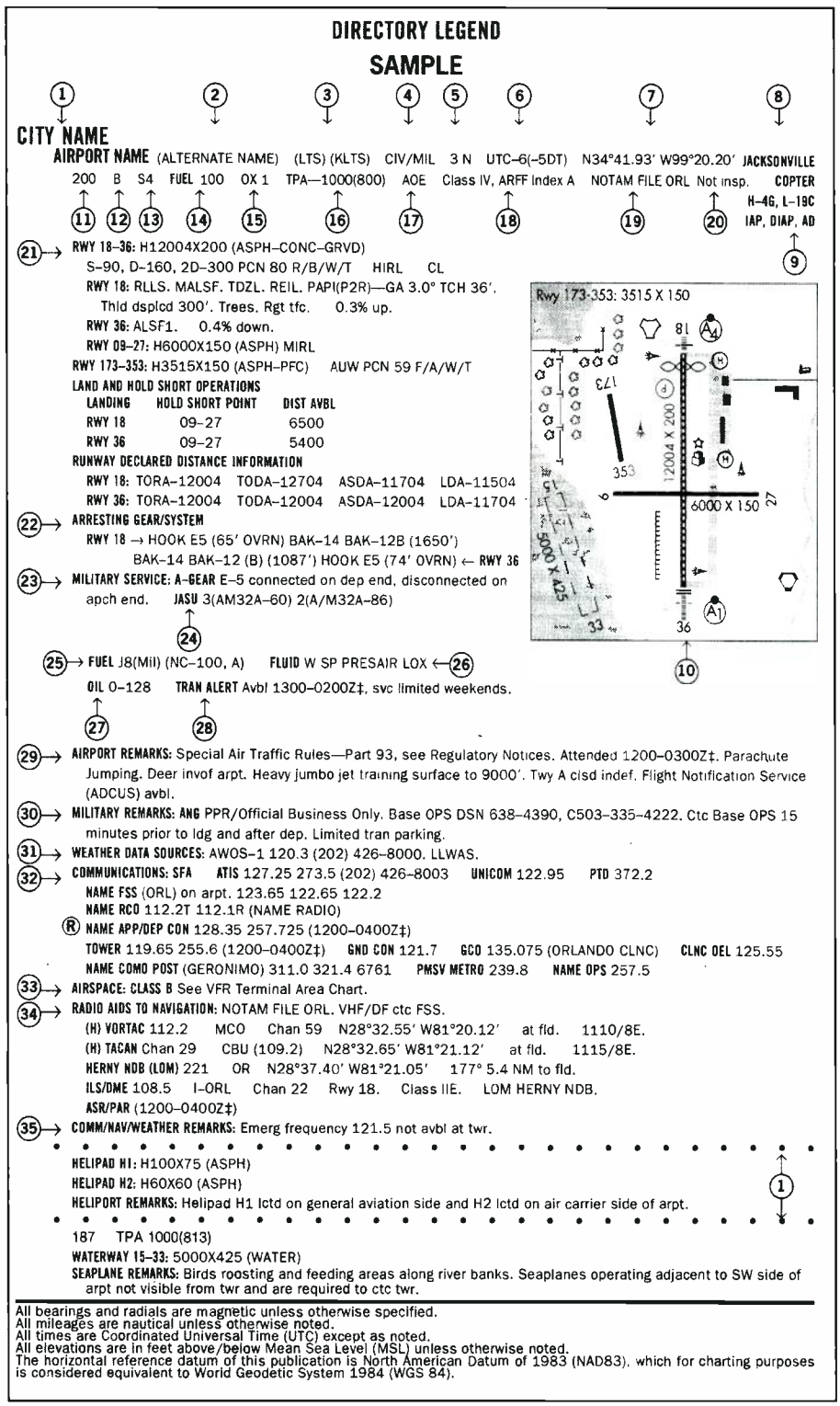


Photo B. Page 4 of the Directory legend is a page aviation scanners should study and understand. *(Courtesy of KPC4KGC)*

- **Number 31** covers the weather. In this case, tune to 120.3 MHz. Note that a phone number for obtaining the weather information is listed, as well. The facility could feature either an ASOS (Automated Surface Observing System) or AWOS (Automated Weather Observing System). These two items give partial or full weather depending on the system and is updated either hourly or every 15-20 minutes. Sometimes they may be updated at odd intervals when the visibility and ceilings improve or deteriorate to specified settings. They can be updated for items such as thunderstorms, hail, tornadoes, or other phenomena.
- **Number 32** carries the greatest chunk of information. In this area you'll find Automated Terminal Information Service (ATIS), Common Traffic Advisory Frequency (CTAF), UNICOM, Approach Control, Tower, Ground Control, Departure Control, Clearance Delivery, and so on. We'll look at a sample airport later in the column concerning these frequencies.
- **Number 34** focuses on frequencies regarding navigational aids such as Non-Directional Radio Beacons (NDB), Very High Frequency Omnidirectional Radio (VOR), Tactical Air Navigation (TACAN), a combination of them (VORTAC), etc.
- **Number 35** deals with remarks concerning certain frequencies for the airport in question.

In the back of the *A/FD*, you'll find pages for Center Frequencies and Flight Service Frequencies. Let's look at three specific airports in two of the guides.

Example 1: Front Royal Airport, Virginia

Front Royal Airport is close to where I live in Virginia. You can see its official name is FRONT ROYAL-WARREN CO, with the identifier of FRR, **Photo C**.

Each airport has a unique identifier. In actuality all 3-letter; 2-letter, 1-number; and 1-letter, 2-number identifiers actually use K in front of them in the lower 48. Front Royal is actually KFRR. *(**NOTE:** Alaskan airports start with PA and Hawaiian airports with PH. – KPC4KGC).*

Front Royal Airport is found on the Washington Sectional chart as well as the

FRONT ROYAL–WARREN CO (FRR) 3 W UTC–5(–4DT) N38°55.05' W78°15.20' WASHINGTON
709 B S2 FUEL 100LL TPA—1709(1000) NOTAM FILE DCA L–29D, A
RWY 10–28: H3007X75 (ASPH) S–12.5 MIRL 0.3% up E IAP
RWY 10: APAP(PNIL)—GA 3.0° TCH 16'. Road.
RWY 28: APAP(PNIR)—GA 3.0° TCH 16'. Pole.
AIRPORT REMARKS: Attended May–Sept 1300–2330Z‡, Oct–Apr 1330Z‡–dusk. Deer on and invof arpt. Glider ops on and invof arpt. Rwy 10 and Rwy 28 rgt tfc for gyrocopters, ultralights and gliders. ACTIVATE MIRL Rwy 10–28—CTAF.
COMMUNICATIONS: CTAF/UNICOM 123.0
Ⓡ POTOMAC APP/DEP CON 120.45
RADIO AIDS TO NAVIGATION: NOTAM FILE DCA.
LINDEN (L) VORTAC 114.3 LDN Chan 90 N38°51.26' W78°12.33' 335° 4.4 NM to fld. 2440/06W.

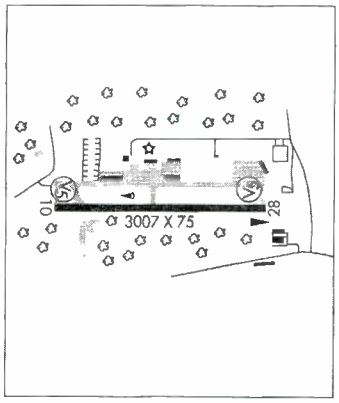


Photo C. Front Royal has no need for a control tower so the Common Traffic Advisory Frequency (CTAF) and the UNICOM frequency are the same — 123.0 MHz. *(Courtesy of KPC4KGC)*

FLORIDA

ORLANDO EXECUTIVE (ORL) 3E UTC–5(–4DT) N28°32.73' W81°19.98' JACKSONVILLE
113 B S4 FUEL 100, JET A OX 4 NOTAM FILE ORL H–8H, L–21D, 24F
RWY 07–25: H6004X150 (ASPH–GRVD) S–45, D–100, 2S–82, 2D–115 HIRL IAP, AD
RWY 07: MALSR. PAPI(P2L)—GA 3.0° TCH 40'.
RWY 25: REIL. VASI(V4L)—GA 3.0° TCH 46'. Trees. Rgt tfc.
RWY 13–31: H4625X100 (ASPH–GRVD) S–35, D–60 HIRL
RWY 13: REIL. PAPI(P2L)—GA 3.0° TCH 28'. Trees.
RWY 31: REIL. PAPI(P2L)—GA 3.0° TCH 28'. Trees. Rgt tfc.
LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 25	13–31	4170

RUNWAY DECLARED DISTANCE INFORMATION
RWY 07: TORA–6004 TODA–6004 ASDA–6004 LDA–5704
RWY 25: TORA–6003 TODA–6003 ASDA–6003 LDA–6003
AIRPORT REMARKS: Attended continuously. PPR for acft over 100,000 lbs; ctc arpt manager 407–896–9171. Banner towing ops S of Rwy 07–25. Acft with wingspan of 65' or greater must obtain assistance before taxiing into the E half of the N ramp and the S half of the W ramp. Twy E between Twy E5 and Twy E6 is non–movement area. Noise sensitive arpt. When twr clsd Rwy 07 is preferred noise abatement rwy weather permitting. Unlighted cranes 292' MSL 0.5 NM–3 NM southwest of Rwy 07. Brightly lgtd bridge highway located approximately ½ mi. S. of arpt could give false indication of being rwy on apch to Rwys 07 & 31 during low ceiling or poor visibility. VFR acft arriving/departing Executive Arpt exercise caution due to small and heavy turbo–jet acft transiting arpt traffic area 2000' and above on approach to Orlando Intl Arpt 5.6 miles south. Customs and Border Protection office located on site, ctc 407–897–5102. Birds in vicinity of arpt. When twr clsd ACTIVATE HIRL Rwy 07–25 and Rwy 13–31, PAPI Rwy 07, Rwy 13 and Rwy 31. REIL Rwy 25, Rwy 13 and Rwy 31, MALSR Rwy 07 and Twy lgts—118.7. VASI Rwy 25 continuous opr.
WEATHER DATA SOURCES: ASOS (407)658–6753. HIWAS 112.2 ORL. LAWRS.
COMMUNICATIONS: CTAF 118.7 ATIS 127.25 UNICOM 122.95
ORLANDO RCO 123.65 122.65 122.2 (ST PETERSBURG RADIO) ORLANDO RCO 122.1R 112.2T (ST PETERSBURG RADIO)
Ⓡ ORLANDO APP/DEP CON 124.8 (000°–180° above 5000') 120.15 (181°–359° above 5500') 121.1 (311°–060° 5500' and blo) 119.475 (061°–180° 4500' and blo) 119.4 (181°–310° 5500' and blo)
TOWER 118.7 (1100–0400Z‡) GND CON 121.4 CLNC DEL 128.45
AIRSPACE: CLASS D svc 1100–0400Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE ORL.
ORLANDO (H) VORTAC 112.2 ORL Chan 59 N28°32.56' W81°20.10' at fld. 102/00E. HIWAS.
HERNY NDB (LOM) 221 OR N28°30.41' W81°26.04' 070° 5.8 NM to fld.
ILS 109.9 I–ORL Rwy 07. Class IB. LOM HERNY NDB. ILS unmonitored 0300–1000Z‡ daily.
ILS/DME 109.3 I–EXO Chan 03(Y) Rwy 25.
COMM/NAV/WEATHER REMARKS: When twr clsd prior to dep req clnc on 124.3. When ORL ILS Rwy 07 and MCO ILS Rwys 17 and 18R simultaneous ops are conducted, ATC radar rqr.

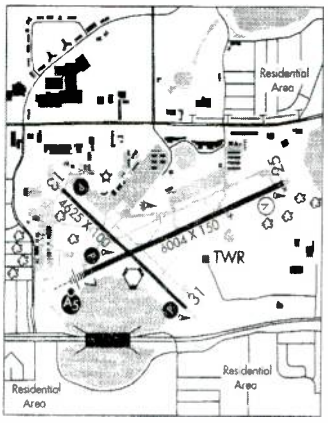


Photo D. This facility can be found on the Jacksonville Section chart as well as instrument charts H-6, L-21, and L-24. *(Courtesy of KPC4KGC)*

instrument en-route chart L-29. Front Royal has no need for a control tower so the Common Traffic Advisory Frequency (CTAF) and the UNICOM frequency are the same — 123.0 MHz. The Potomac TRACON (Terminal Radar Approach Control) uses 120.45 for both arrivals and departures at FRR. Finally the LINDEN VORTAC (LDN) is on 114.3 MHz and military Channel 90.

From the LDN VORTAC to FRR you'd fly a 335-degree heading for 4.4 nautical miles, so LDN is almost due south of FRR. *(**NOTE:** LDN is located in the Shenandoah National Park very close to the Appalachian Trail. I'll be searching for it on one of my next trips on the AT. – KPC4KGC)*

Example 2: Executive Airport, Orlando

In Orlando, Executive Airport has the identifier ORL, **Photo D**. Growing up there, I spent many an hour watching traffic into/out of *Herndon* as I knew it. I was fortunate enough to actually work there from 1993 to 1995 and was there when the control tower was moved from the top of the old terminal building to the present site on the south east side of the airport.

This facility can be found on the Jacksonville Section chart as well as instrument charts H-6, L-21, and L-24. Note HIWAS on frequency 112.2 MHz. Looking down to the RADIO AIDS TO NAVIGATION, the ORLANDO VORTAC is the same frequency. HIWAS deals with inclement weather and in many cases alerts are issued by voice on various VORTACs, but only as needed.

You'll also see the CTAF frequency is identical to the TOWER frequency of 118.7 MHz. The Orlando Executive control tower, like most towers in the country, is not a 24/7 facility, like Orlando International (MCO).

During the hours the control tower is not operational, the local control frequency reverts to CTAF. It's a lot less of a hassle to have one frequency in use when the tower is closed. Here at ORL there is only one ATIS frequency — 127.25 MHz. ATIS is normally updated hourly, and is only changed when a need arises, such as changes in the weather or a change in the runway in use.

Each broadcast is finished with an ICAO letter to let the controller know the pilot has the most up-to-date information. An example may be:

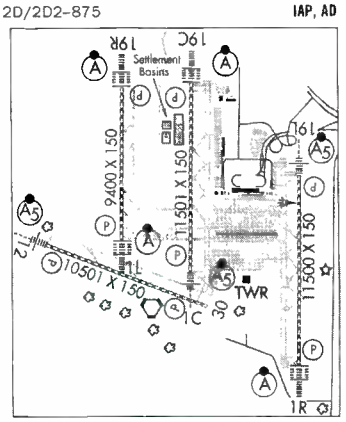
"ORLANDO EXECUTIVE ATIS ALPHA. ORLANDO WEATHER WIND ZERO NINER ZERO AT FIVE, VISIBILITY ONE ZERO, SKY CLEAR BELOW ONE TWO THOUSAND, TEMPERATURE TWO FIVE, DEW POINT ONE THREE, ALTIMETER THREE ZERO ZERO ONE, RUNWAY SEVEN IN USE, ADVISE ON INITIAL CONTACT YOU HAVE INFORMATION ALPHA."

This is repeated until the next hour when BRAVO takes effect. When the pilot requests taxi to ground or checks in with the local controller coming into the airspace he or she would say they have information ALPHA. This lightens the workload on the controller, especially the local controller.

If the ATIS has been updated, the controller may give the new information, workload permitting, or request the pilot re-listen to information BRAVO. Since Orlando Executive and Orlando

DISTRICT OF COLUMBIA

WASHINGTON DULLES INTL (IAD) 20 W UTC–5(–4DT) N38°56.85' W77°27.60' **WASHINGTON COPTER**
312 B S4 **FUEL** 100, JET A OX 1, 2, 3 LRA Class I, ARFF Index E **H–10H, 12I, L–29E, 34E, 36I, A**
NOTAM FILE IAD **IAP, AD**
RWY 01C–19C: H11501X150 (CONC–GRVD) S–200, D–250, 2D–450, 2D/2D2–875
PCN 81 R/C/W/T HIRL CL
RWY 01C: MALSR. TDZL. PAPI(P4L)—GA 3.0° TCH 70'.
RWY 19C: ALSF2. TDZL. PAPI(P4R)—GA 3.0° TCH 72'.
RWY 01R–19L: H11500X150 (CONC–GRVD) S–200, D–250, 2D–450, 2D/2D2–875 PCN 81 R/C/W/T HIRL CL
RWY 01R: ALSF2. TDZL. PAPI(P4R)—GA 3.0° TCH 72'. Building.
RWY 19L: MALSR. PAPI(P4L)—GA 3.0° TCH 75'. Pole.
0.3% up.
RWY 01L–19R: H9400X150 (CONC–GRVD) S–200, D–250, 2D–450, 2D/2D2–875 PCN 81 R/C/W/T HIRL CL
RWY 01L: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 70'. 0.3% down.
RWY 19R: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 70'.
RWY 12–30: H10501X150 (CONC–GRVD) S–200, D–250, 2D–450, 2D/2D2–875 PCN 81 R/C/W/T HIRL CL
RWY 12: MALSR. TDZL. PAPI(P4R).
RWY 30: REIL. PAPI(P4L)—GA 3.0° TCH 75'. 0.4% up.
RUNWAY DECLARED DISTANCE INFORMATION:
RWY 01L: TORA–9400 TODA–9400 ASDA–9400 LDA–9400
RWY 01C: TORA–11501 TODA–11501 ASDA–11501 LDA–11501
RWY 01R: TORA–11500 TODA–11500 ASDA–11500 LDA–11500
RWY 12: TORA–10501 TODA–10501 ASDA–10501 LDA–10501
RWY 19L: TORA–11500 TODA–11500 ASDA–11500 LDA–11500
RWY 19C: TORA–11501 TODA–11501 ASDA–11501 LDA–11501
RWY 19R: TORA–9400 TODA–9400 ASDA–9400 LDA–9400
RWY 30: TORA–10501 TODA–10501 ASDA–10501 LDA–10501



AIRPORT REMARKS: Attended continuously. Deer and large flocks of birds on and invof arpt. PAEW adjacent all rwys and twys indef. Flight training between 0300–1200Z‡ prohibited. Rwy 12 and Rwy 30 touchdown, rollout runway visual range avbl. Rwy 01C, Rwy 19C, Rwy 01R and Rwy 19L touchdown, midfield, and rollout, runway visual range avbl. Rwy 01L and Rwy 19R touchdown, midfield, and rollout visual range avbl. Itinerant acft ctc fixed base operator on 122.95 for services. ASDE–X Surveillance System in use. Pilots should operate transponders with Mode C on all twys and rwys. Air carrier push backs and power from all apron positions require clearance from MWAA Ramp tower. All acft with wingspan exceeding 118' are restricted from using Taxilane A between Taxilane A1 and A5. Twy E1 rstd to acft with a wingspan less than 79'. Runup blocks for Rwy 30 designated as non–movement area. Taxilane C active; pushback clncs on N side of midfield terminal are onto Taxilane D only unless otherwise authorized. All 180° turns out of apron positions shall be made using minimum power. During periods of acft saturation long term parking may not be avbl. Svc for fuel and go only will be avbl. Ldg fee. Flight Notification Service (ADCUS) available. NOTE: See Special Notices—Continuous Power Facilities.
WEATHER DATA SOURCES: ASOS (703) 661–2990. TDWR.
COMMUNICATIONS: **D–ATIS** 134.85 (703) 661–6347. **UNICOM** 122.95
ARMEL RCO 113.5T 122.1R (LEESBURG RADIO)
Ⓡ **POTOMAC APP CON** 126.1 (331°–090°) 124.65 (091°–240°) 120.45 (241°–330°)
TOWER 120.1 (Rwy 01R–19L) 120.25 (Rwy 01C–19C)134.425 (Rwy 01L–19R, Rwy 12–30)
MIDFIELD RAMP CON 129.55
GND CON 121.9 (East) 132.45 (West) **CLNC DEL** 135.7
Ⓡ **POTOMAC DEP CON** 126.65(121°–299°) 125.05 (300°–120°)
AIRSPACE: CLASS B See VFR Terminal Area Chart. Arrivals may be extended outside of Class B.
RADIO AIDS TO NAVIGATION: NOTAM FILE IAD.
ARMEL (L) VORTAC 113.5 AML Chan 82 N38°56.08' W77°28.00' at fld. 297/08W
TILLE NDB (LOM) 346 IA N38°50.84' W77°26.27' 360° 6.1 NM to fld.
ILS 111.3 I–DLX Rwy 19C. Class IIIE.
ILS 111.3 I–OSZ Rwy 01C. Class IE.
ILS/DME 110.1 I–SGC Chan 38 Rwy 19L. Class IE.
ILS/DME 110.1 I–IAD Chan 38 Rwy 01R. Class IIIE. LOM TILLE NDB.
ILS/DME 110.75 I–ISU Chan 44(Y) Rwy 19R. Class IIIE.
ILS/DME 110.75 I–OIU Chan 44(Y) Rwy 01L. Class IIIE.
ILS 109.3 I–AJU Rwy 12. Class IE.

Photo E. Dulles is found on the Washington sectional, the Washington Copter chart, and on H-10, H-12, L-29, L-34, and L-36 maps. ***This graphic should not be used for navigation.*** *(Courtesy of KPC4KGC)*

International use ORLANDO in the airport name, Executive uses only half of the ICAO alphabet and International uses the other half.

It's been nearly 20 years since working at ORL, and if I remember correctly, ORL uses ALPHA through MIKE and International uses NOVEMBER through ZULU. You'll now see the RCO frequencies at ORL for St. Petersburg Radio — 123.65, 122.65, and 122.2 MHz. Also you see 122.1R and 112.2T. As mentioned earlier, 112.2 is the ORL VORTAC. If the pilot needs to talk to St. Petersburg Radio and can't contact it on the first three frequencies, he could tune his communications transmitter to 122.1 MHz and turn up the volume on his NAV receiver to 112.2 MHz. He would transmit on 122.1 and listen for St. Petersburg on the VOR frequency.

The approach control — in this case located at Orlando International — uses five frequencies for the area, depending on the location of the aircraft in relation to the ORL VORTAC and the altitude.

For example, an airplane coming in from, say, Vero Beach (VRB) which is southeast of Orlando and is at 6,500 feet should contact Orlando Approach on 124.8 MHz while someone approaching from Ocala (OCF), which is north-northeast of Orlando, and is flying at 3,500 feet should contact Orlando on 121.1 MHz.

This being the case, your scanner and antenna location will dictate what you may or may not hear. The tower frequency is 118.7 MHz (remember the CTAF noted above) and operates from 1100 to 0400 UTC (7 a.m. to 11 p.m. EDT).

Ground control is on 121.4 MHz and operates the same hours with Clearance Delivery on 128.45.

Finally we see the RADIO AIDS TO NAVIGATION — or, as we call them, NAVAIDS. The ORL VORTAC of 112.2 MHz has already been discussed.

The lowfers — monitors who like to listen below the AM broadcast band — will be glad to know that LF frequencies are still in use in aviation. Here you have the HERNY NDB, with the identification of OR and it's on 221 kHz. With the use of VORs and GPS, we still have the old standby of the low frequency radio beacons.

Finally the ILS, or Instrument Landing System, is found here on 109.9-MHz identification of I-ORL for runway 7 and on 109.3 MHz, identification I-EXO for runway 25. You may notice the I-EXO is an ILS/DME. Transmitted with the ILS frequency is a DME or Distance Measuring Equipment signal on UHF. Like TACAN you can't pick it up intelligibly.

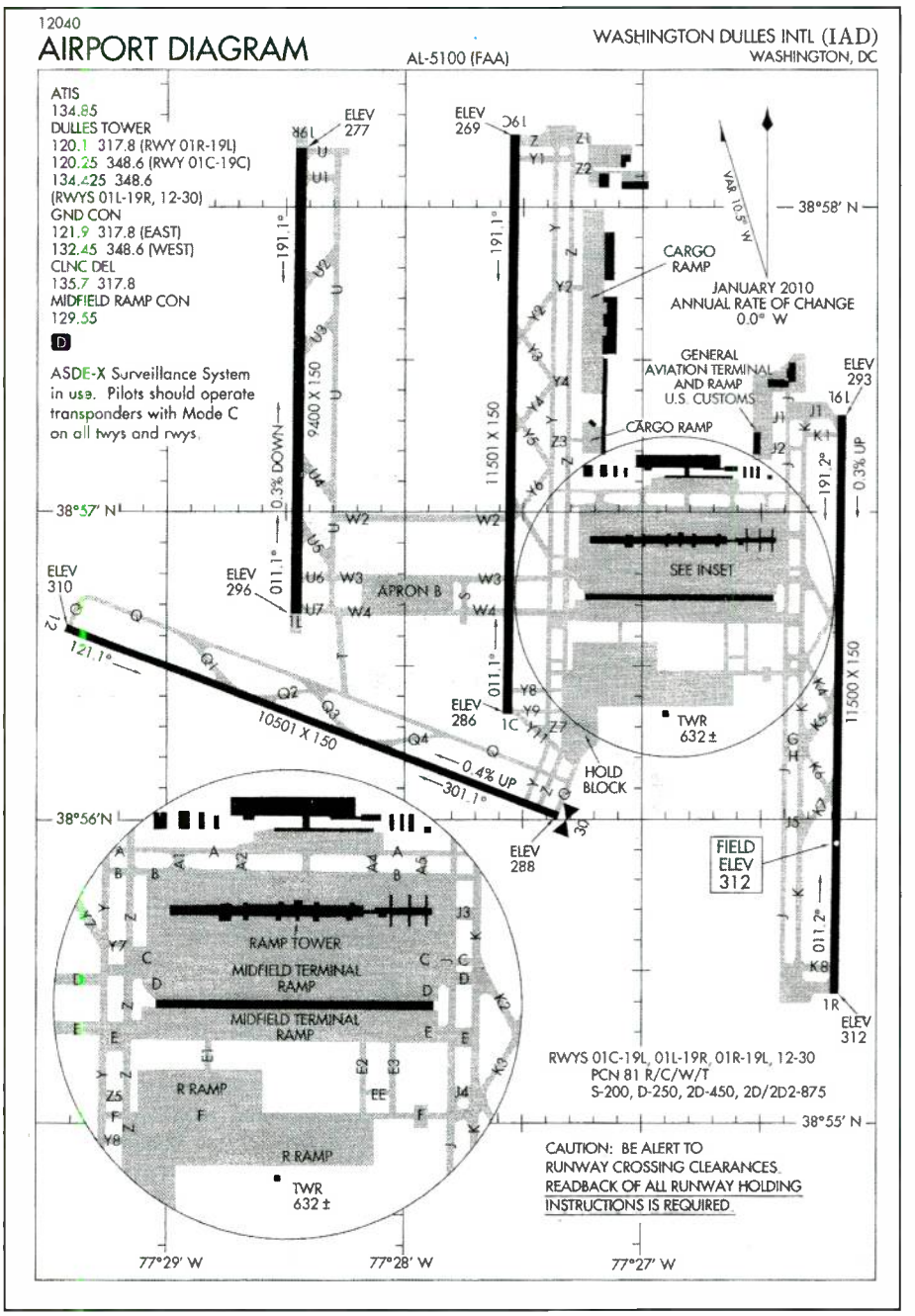


Photo F. There are larger, more detailed maps of many of the airports at the back of the book. At the upper left corner you'll find a list of frequencies for the airport. "In a case like this, you may consider tearing out the map and carrying it with you next time you're at the airport," KPC4KGC writes. *(Courtesy of KPC4KGC)*

Example 3: Washington-Dulles International Airport

First we dealt with an uncontrolled airport — Front Royal — then a smaller towered airport, Orlando Executive.

Now it's time for a *biggie:* WASHINGTON DULLES INTERNATIONAL (IAD), **Photo E.** I drive by this facility at least 10 times a week and I'm just amazed at the volume of traffic as well as the types of aircraft — from light twin aircraft to Boeing 747 and the Airbus 380. I even observed Air Force One landing there a few weeks ago.

Dulles is found on the Washington sectional, the Washington Copter chart, and on H-10, H-12, L-29, L-34, and L-36 maps. The thumbnail map shows the triple parallel runways with the one crossing runway in the lower left.

In spite of the size and complexity of this facility, there are few communications frequencies being used. You find a D-ATIS (digital ATIS) on 134.85 MHz with a UNICOM frequency of 122.95. You may notice that Orlando Executive uses the same UNICOM frequency. This is no coincidence. Most towered airports use 122.95 MHz as their UNICOM, and most non-towered airports do not, but there are exceptions in a few cases.

Here there is just one RCO frequency for Leesburg Radio, and, like Orlando Executive, it utilizes the ARMEL VORTAC (AML). Pilots transmit on 122.1 MHz and monitor the ARMEL VORTAC ON 113.5.

The approach control, like Orlando, has differing frequencies depending on the position from ARMEL, but *not* depending on altitude. Orlando Executive has only one local controller for all runways, but Washington uses three — one for each of the parallel runways with the one controlling 1L/19R also controlling intersecting runway 12/30.

You'll also notice a MIDFIELD RAMP CONTROLLER (129.55) who works the aircraft at the parking ramp. He works in conjunction with the two ground controllers — 121.9 MHz on the east side of the field and 135.45 on the west side.

Only one clearance delivery works here on 135.7 MHz and you can be assured that is *one busy person.* In this case Potomac Approach also uses specific departure controllers to ensure separation.

Those departing from southeast to northwest transmit on 126.65 MHz while those departing from northwest to southeast use 125.05. The ARMEL VORTAC operates on 113.5 MHz.

The TILLE NDB (IA) is on 346 kHz. And, in spite of all the runways, only four frequencies are used for the ILS approaches, 111.3 MHz on runway 1C/19C, 110.1 on 1R/19L, 110.75 for runway 1L/19R, and 109.3 for runway 12. It is clear that runway 30 doesn't use an instrument approach.

More References

There are larger, more detailed maps of many of the airports at the back of the book. Look at the upper left corner and you'll find a list of frequencies for the airport, **Photo F**. In a case like this you may consider tearing out the map and carrying it with you next time you're at the airport.

Photo G, labeled AIR ROUTE TRAFFIC CONTROL CENTERS, is a list of the frequencies used by the centers. A list of the enroute maps — H-10-11-12 . . . — for each center is located to the right of the facility name. As you can see, Washington Center has 25 sectors in addition to the frequencies covering those inbound and outbound international flights.

Some frequencies are in bold — those are for upper altitude flights, at or above flight level 180 — 18,000 feet. Pilots never use the sector name when dealing with centers. It's always "WASHINGTON CENTER," not "LINDEN CENTER" or "ROANOKE CENTER."

Finally, there is a FLIGHT SERVICE STATION COMMUNICATIONS frequencies list, **Photo H**. Each "Radio" — for example, Nashville Radio or Saint Petersburg Radio — is located in one of the flight service station buildings.

These radio stations were originally located in their respective flight service stations prior to consolidation. Presently Miami and San Juan radios are at the facility in Miami with Anderson (SC), Anniston (AL), Gainesville (FL), Jackson (MS), Louisville (KY), Macon (GA), Nashville (TN), Raleigh (NC), and Saint Petersburg (FL) all located in Ashburn, VA.

Other facilities from the Great Lakes to New England are also located there. All frequencies are computer controlled and can be accessed at virtually every position in the facility.

AIR ROUTE TRAFFIC CONTROL CENTERS

(R)NEW YORK CENTER — H-10-11-12, L-29-30-32-33-34-36 (KZNY)
Arr-Dep US – 133.7
Barnegat – 132.15 132.15
Barnstable – 135.8 125.925
Big Flat – 133.475 132.2
Colts Neck – 118.975
Douglaston – 134.375 133.05
Elk Mountain – 134.45 **132.175** 128.5
Flint Hill – 124.625 134.6 132.1
Huguenot – 132.6
Joliet – 133.675 132.5
Matawan – 125.325 127.175
Millville – 134.325
Modena – 135.45
Nantucket – 121.125
North Mountain – 133.5 **128.575** 123.625 **121.325**
Philipsburg – 134.8 **132.875**
Sayre – 133.35
Ship Bottom – 128.3 133.05
Sparta – 133.15
Williamsport – 124.9

(R)WASHINGTON CENTER — H-9-10-12, L-24-25-26-29-34-35-36, A-1 (KZDC)
Arr-Dep US – 135.5 **133.82 133.12 128.52** 127.7 **127.42 124.02** 123.85 **118.82**
Atlantic City – 133.12
Bucks Elbow – 135.4 **133.2** 133.2 **121.675**
Buena Vista – 134.625 134.4 **133.025** 127.925
Cape Charles – 128.525
Cedar Lake – 124.77 124.77
Elkins – 128.6
Falls Church – 126.875 135.525 133.97 132.775
Grantsville – 133.65
Green Bay – 133.725 132.025 127.75 118.75
Hagerstown – 134.15 134.15
Linden – 133.55
Lynchburg – 133.575
Manteo – 124.725
Martinsburg – 132.275
Millville – 125.45 125.45
Modena – 132.525
Patuxent River – 133.9
Roanoke – 134.625
Sea Isle – 127.7
Ship Bottom – 127.025
Smyrna – 132.05
South Boston – 124.05
Whaleyville – 120.75
White Sulfur Springs – 120.85
Wilmington – 135.75

Photo G. Air Route Traffic Control Centers is a list of the frequencies used by the facilities. A list of the enroute maps — H-10-11-12 . . . — for each center is located to the right of the facility name. *(Courtesy of KPC4KGC)*

Though you see numerous areas that flight service use, the pilot always uses the name *Saint Petersburg* or *Nashville* followed by *Radio*. For example a pilot out of Vero Beach, Florida (VRB) will call radio on one of the frequencies in the book — 122.2, 122.5, or even 122.1 MHz while listening to the VRB VORTAC on 117.3. He may say, "Saint Petersburg Radio, November One Two Three Four Five, I'd like to activate my VFR flight plan to Titusville. I departed Vero Beach on the hour."

The specialist would acknowledge the pilot, activate the flight plan, look at the pilot's route on the computer and determine if the pilot may need additional information concerning inclement weather, or perhaps a temporary flight restriction, or even a runway or airport closure that may not have existed when the pilot got his/her brief earlier.

You may note that under Raleigh Radio the Kinston VORTAC there's a different frequency than standard for communicating with flight service. The normal frequency for transmitting to flight service when monitoring a VORTAC is 122.1 MHz. At Kinston, the pilot would transmit on 122.15 and then monitor the VORTAC frequency of 109.6 MHz. Also look at the Orlando VORTAC listing: The frequency of 122.65 MHz is in bold. Though any pilot can use this frequency, its primary use is for en-route aircraft at upper altitudes.

There You Have It

The FAA's *Airport/Facility Directory* is a great resource for your listening pleasure. Any questions? Please ask!

I hope the readers in Canada don't feel left out, and *you shouldn't*. I'll do an article for the Canadian Flight Supplement — its equivalent of the *A/FD* — in an upcoming column. Keep tuned in! – *KPC4KGC*.

FLIGHT SERVICE STATION COMMUNICATION FREQUENCIES

NASHVILLE RADIO
BRISTOL RCO 122.2
CHATTANOOGA RCO 122.2 123.65
CROSSVILLE RCO 122.2 122.5
HINCH MOUNTAIN VORTAC 117.6T 122.1R
HOLSTON MOUNTAIN VORTAC 114.6T 122.1R
LIVINGSTON VORTAC 108.4T 122.1R
MCGHEE TYSON RCO 122.2 122.3
NASHVILLE RCO 122.1R 122.2 122.55
SHELBYVILLE VOR/DME 109.0T 122.1R
VOLUNTEER VORTAC 116.4T 122.1R

RALEIGH RADIO
BARRETTS MOUNTAIN VOR/DME 110.8T 122.1R
CHARLOTTE RCO 122.4
COFIELD VORTAC 114.6T 122.1R
ELIZABETH CITY VOR/DME 112.5T 122.05R 122.2
FAYETTEVILLE VOR/DME 108.8T 122.1R
GREENSBORO VORTAC 116.2T 122.1R 122.2 123.65
HATTERAS RCO 122.3
HICKORY RCO 122.2 122.6
KINSTON VORTAC 109.6T 122.15R
LIBERTY VORTAC 113.0T 122.1R
NEW BERN VOR/DME 113.6T 122.1R 122.2 122.4
PITT-GREENVILLE RCO 122.35
RALEIGH RCO 122.2 122.45 122.65
ROCKY MOUNT RCO 122.2 122.3
SANDHILLS VORTAC 111.8T 122.1R
SNOWBIRD VORTAC 108.8T 122.1R
SUGARLOAF MOUNTAIN VORTAC 112.2T 122.1R 122.2 122.3
TAR RIVER VORTAC 117.8T 122.1R
WILKESBORO RCO 122.4
WILMINGTON VORTAC 117.0T 122.1R 122.55

SAINT PETERSBURG RADIO
BROOKSVILLE RCO 122.3
FORT DRUM RCO 122.2
LAKELAND VORTAC 116.0T 122.1R
MELBOURNE VOR/DME 110.0T 122.1R 122.6
ORLANDO VORTAC 112.2T 122.1R 122.2 **122.65** 123.65
ORMOND BEACH VORTAC 112.6T 122.1R 122.4
PUNTA GORDA RCO 122.025
ST PETERSBURG VORTAC 116.4T 122.1R 122.2 122.45 123.6
SARASOTA VORTAC 115.2T 122.1R
SEBRING RCO 122.25
TITUSVILLE RCO 123.6
VERO BEACH VORTAC 117.3T 122.1R 122.2 122.5

SAN JUAN RADIO
BORINQUEN VORTAC 113.5T 122.1R
MAYAGUEZ VOR/DME 110.6T 122.1R
PONCE VOR/DME 109.0T 122.1R
ST CROIX VOR/DME 108.2T 122.1R
ST THOMAS VOR/DME 108.6T 123.6R
SAN JUAN RCO 126.7 123.65 122.2

Photo H. In the Flight Service Station Communications frequencies list, each "Radio" — for example, Nashville Radio or Saint Petersburg Radio — is located in one of the flight service station buildings. These radio stations were originally located in their respective flight service stations prior to consolidation. *(Courtesy of KPC4KGC)*

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
0000	9780	CVC-La Voz, Chile	SS
0000	4319u	Armed Forces Network, Diego Garcia	USB
0000	9650	Islamic Republic of Iran Broadcasting	Turkish
0000	17795	Radio Australia	
0000	4878	Radio Difusora Roraima, Brazil	PP
0000	15230	Radio Havana Cuba	SS
0000	9570	Radio Havana Cuba.	
0000	15120	Radio Havana Cuba	SS
0000	4747	Radio Huanta 2000, Peru	SS
0000	15720	Radio New Zealand International	
0000	15275	Radio Thailand	
0000	17765	Voice of America, Philippine Relay	CC
0000	9665	Voice of Russia, via Moldova	
0000	7315	WHRI, South Carolina	
0100	6973	Galei Zahal, Israel	HH
0100	15190	Radio Inconfidencia, Brazil	PP
0100	9760	Radio Liberty, USA, via Germany	Tajik
0100	6135	Radio Santa Cruz, Bolivia	SS
0100	7425	Radio Tirana, Albania	
0100	11905	Sri Lanka Broadcasting Corp.	Hindi
0100	12025	Trans World Radio, USA, via Uzbekistan	unid
0100	5110	WBCQ, Maine	
0200	11710	Radio Argentina al Exterior	varies
0200	4825	Radio Cancao Nova, Brazil	PP
0200	4855	Radio Clube do Para, Brazil	PP
0200	11765	Super Radio Deus e Amor, Brazil	PP
0200	9925	Voice of Croatia, via Germany	
0200	7505	WRNO, Pennsylvania	
0200	5050	WWRB, Tennessee	
0300	7200	Radio Omdurman, Sudan	AA
0300	3215	Adventist World R. USA, via Madagascar	Malagasy
0300	5910	Alcaravan Radio, Colombia	SS
0300	5790	BBC, England	AA
0300	6090	Caribbean Beacon, Anguilla	
0300	9610	Vatican Radio, via Canada	FF
0300	11920	Islamic Republic of Iran Broadcasting	
0300	6270	Radio Cairo, Egypt	AA
0300	15160	Radio Australia	
0300	4985	Radio Brazil Central	PP
0300	4780	Radio Djibouti	SS
0300	3350	Radio Exterior Espana, Costa Rica Relay	SS
0300	5960	Radio Japan, via Canada	JJ
0300	3320	Radio Sonder Grense, South Africa	Afrikaans
0300	6165	Voice of Turkey	
0300	7175	Voice of the Broad Masses, Eritrea	AA
0300	7205	Voice of the Broad Masses, Eritrea	Tigrinya
0300	4930	Voice of Amerca, Botswana Relay	
0300	5940	Voz Misionaria, Brazil	PP
0300	7185	Voice of the Broad Masses, Eritrea	AA
0300	7385	WRMI, Florida	
0300	5915	Zambia National Broadcasting	vern
0400	9790	China Radio International	CC
0400	9470	Deutsche Welle, Germany, Rwanda Relay	
0400	6050	HCJB, Ecuador	SS
0400	13740	Islamic Republic of Iran Broadcasting	Dari
0400	13650	Islamic Republic of Iran Broadcasting	
0400	6185	Radio Educacion, Mexico	SS
0400	6055	Radio Exterior Espana, Spain	SS
0400	13685	Radio France International	FF
0400	11700	Radio France International	FF
0400	6000	Radio Havana Cuba	
0400	4950	Radio Nacional, Angola	PP
0400	11690	Radio Okapi, Congo, via South Africa	Lingala
0400	7310	Radio Romania International	
0400	5950	Radio Taiwan International, via Florida	CC
0400	11800	Sudan Radio Service, USA, via UAE	AA
0400	11715	Vatican Radio	AA
0400	9870	Voice of the People, (to Zimbabwe)	EE/vern
0400	11905	Voice of America, via Madagascar	Kinyarwanda
0400	5890	WWCR, Tennessee	
0400	5935	WWCR, Tennessee	
0500	15225	Adventist World Radio, USA, via Germany	AA
0500	15170	Broad. Svc. of Kingdom, Saudi Arabia	AA
0500	9630	Radio Exterior Espana, Costa Rica Relay	SS
0500	9630	Radio Exterior Espana, Costa Rica Relay	SS
0500	11725	Radio New Zealand International	
0500	9500	Trans World Radio, Swaziland	
0500	15180	Voice of Korea, North Korea	SS
0600	4055	Radio Verdad, Guatemala	SS
0800	6010	La Voz de tu Concencia, Colombia	SS
0800	9635	RTV Malienne, Mali	FF

UTC	Freq.	Station/Country	Notes
0800	9690	Voice of Nigeria	Hausa
0900	4990	Radio Apinte, Suriname	DD
0900	4915	Radio Difusora Macapa, Brazil	PP
0900	5580	Radio San Jose, Bolivia	SS
0900	4826	Radio Sicuani, Peru	SS
0900	4717	Radio Yura, Bolivia	SS
0900	4755	The Cross Radio, Micronesia	
0900	3290	Voice of Guyana	
0900	4700	Radio Riberalta, Bolivia	SS
1000	9655	KNLS, Alaska	
1000	3330	Ondas del Huallaga, Peru	SS
1000	3260	Radio Madang, (New Guinea), PNG	Tok Pisin
1000	3310	Radio Mosoj Chaski, Bolivia	SS
1000	3105	Radio Sanduan, (New Guinea), PNG	Tok Pisin
1000	4940	Voice of the Strait, China	CC
1100	15410	All India Radio	Thai
1100	15440	China Radio International	Mandarin
1100	6220	Family Radio, Taiwan	Burmese
1100	15400	HCJB, Australia	
1100	44815	La Voz de la Selva, Peru	SS
1100	3905	NBC, (New Ireland), PNG	Tok Pisin
1100	9895	Radio Nederland, Bonaire Relay	DD
1100	4781	Radio Oriental, Ecuador	SS
1100	9465	Radio Taiwan International	
1100	3945	Radio Vanuatu	
1100	9835	Sarawak FM, Malaysia	Bhasa Malay
1100	5020	Solomon Is. Broadcasting Corp.	
1100	9910	Trans World Radio, USA via Guam	CC
1200	4750	Bangladesh Betar	Bengali
1200	7325	China Radio International	JJ
1200	9655	Radio New Zealand International	
1200	9920	Far East Broadcasting, Philippines	
1200	9650	KBS Radio, South Korea, via Canada	
1200	7355	KNLS, Alaska	
1200	6130	Lao National Radio	Lao
1200	2265	NBC, (Papua), PNG	Tok Pisin
1200	9595	Radio Nikkei, Japan	JJ
1200	9580	Radio Australia	
1200	6120	Radio Japan, via Canada	
1200	7110	Thazin Radio, Myanmar	Burmese
1200	12020	Voice of Vietnam	
1200	9930	World Harvest Radio, South Carolina	
1300	5765	AFRTS, Guam	
1300	9690	All India Radio	
1300	11590	Radio Free Asia, Kuwait Relay	Tibetan
1300	3925	Radio Nikkei, Japan	JJ
1300	15135	Radio Romania International	Romanian
1300	4835	VL8A, Australia	
1300	11710	Voce of Korea, North Korea	
1300	9526	Voice of Indonesia	
1300	15615	WEWN, Alabama	
1400	9714	Radio Free Asia, Northern Marinas Relay	VV
1400	11840	Voice of Russia	
1500	15270	Adventist World Radio, USA, via Germany	Hindi
1500	15435	Broad. Svc. of Kingdom, Saudi Arabia	AA
1500	11540	Radio Free Asia, Northern Marianas Relay	CC
1500	9955	WRMI, Florida	
1600	15250	Adventist World Radio, USA, via Austria	Urdu
1600	11830	BBC, via Germany	
1600	17795	BBC, via Ascension	
1600	9935	Radio Makedonias, Greece	GG
1600	11765	Sound of Hope, (Taiwan to China)	CC
1700	11620	All India Radio	RR
1700	11970	Radio Romania International	Romanian
1700	11975	Family Radio, via England	Somali
1700	11960	Polish Radio, via England	RR
1700	15350	Radio Marocaine, Morocco	AA
1800	15180	BBC, via Germany	FF
1800	9455	China National Radio	CC
1800	15250	FEBA, England, via Philippines	FF
1800	11540	Radio Free Asia, Northern Marianas Relay	CC
1800	9540	Radio Free Asia, Northern.Marianas Relay	CC
1800	17605	Radio Nederland, via Vatican	
1800	15310	Radio Romania International	Romanian
1800	13570	WINB, Pennsylvania	
1900	12040	Voice of Russia	
2000	13800	Radio Romania International	
2000	11670	All India Radio	
2000	11810	BBC, Ascension Is., Relay	
2000	9865	China Radio International	CC
2000	17680	CVC-La Voz, Chile	SS
2000	11750	Islamic Republic of Iran Broadcasting	
2000	15110	Radio Exterior Espana, Spain	SS
2000	9965	Radio Farda, USA, via Sri Lanka	Farsi
2000	21690	Radio France Intl., French Guiana Relay	FF
2000	15540	Radio Kuwait	AA
2000	9665	Radio PMR, Moldova	
2000	13800	Radio Romania International	
2000	11735	Radio Tanzania-Zanzibar	Swahili
2000	11625	Vatican Radio	
2000	15120	Voice of Nigeria	various
2100	9580	Africa Number One, Gabon	FF
2100	11800	Deutsche Welle, Germany, Rwanda Relay	
2100	11765	Islamic Republic of Iran Broadcasting	JJ
2100	9705	La Voix du Sahel, Niger	FF
2100	17550	Radio Kuwait	AA
2100	9420	Voice of Greece	GG
2100	9590	Voice of America, Sao Tome Relay	
2200	9730	BBC, Seychelles Relay	Swahili
2200	9760	Cyprus Broadcasting Corp.	Greek
2200	5010	Radio Madigasikara, Madagascar	Malagasy
2200	7245	Radio Mauritanie, Mauritania	AA
2200	15720	Radio New Zealand International	
2200	9830	Voice of Turkey	
2300	6070	CFRX, Canada	
2300	9590	China Radio International	SS
2300	6160	CKZN, Canada (Newfoundland)	
2300	11665	CVC-La Voz, Chile	SS
2300	9575	Radio Medi Un, Morocco	FF
2300	15585	Radio Free Asia, No. Marianas Relay	CC
2300	15265	Radio Japan, via Bonaire	JJ
2300	11930	Radio Marti, USA	SS
2300	17725	Radio Taiwan International, via Florida	SS
2300	5995	RTV Malienne, Mali	FF
2300	14950	Salem Estereo, Colombia	SS
0700	12080	Radio Australia	

Communications Trivia and Other Pursuits

Compiled by Richard Fisher, KPC6PC

Is What I've Heard About the Foxhole Radio True?

Q: I have long thought captured World War II GIs built foxhole radios because they didn't have the tools or materials to make more sophisticated receivers. I recently heard that in reality they did not want to use superheterodyne receivers because German direction-finding equipment was so sensitive, it could pick up the oscillator signal from the radio and seize the gear. Is this true?

Photo A. World renowned *maker* Bre Pettis shows how to make an authentic foxhole radio — razor blade and all, *<http://bit.ly/Q2J7zV>. (Internet screen grab)*

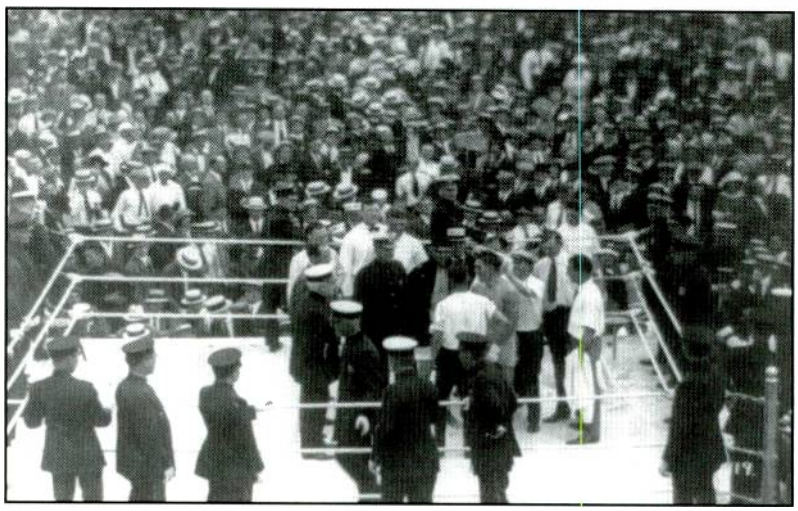


Photo B. Jack Dempsey and Georges Carpentier get ready to square-off in the arena at Boyle's Thirty Acres on July 2, 1921. KDKA made history with its broadcast of this World Heavyweight Boxing Championship — the first such sports broadcast ever. *(Courtesy of Wikipedia Commons)*

A: I have never heard that. But it certainly sounds plausible. Anyone in the *Pop'Comm* reading community have insight?

Have you had success in making a foxhole radio? *(**WATCH:** Maker Bre Pettis build one, <http://bit.ly/Q2J7zV>, **Photo A**. – KPC6PC)*

A Dial-Full of 'Firsts' for KDKA Radio

Q: Pittsburgh's KDKA is widely credited with making the first broadcast by a commercially licensed radio station. But beyond that historic transmission of the Harding-Cox presidential election announced by Leo Rosenberg on November 2, 1920, does the station have any other claims to fame?

A: Gosh, how much time do you have? Check out this timeline from the KDKA website:

- *January 2, 1921* – First broadcast of a regularly scheduled church service: Calvary Episcopal Church, Pittsburgh.
- *January, 1921* – First full-time radio announcer hired: Harold W. Arlin, who introduced big names such as William Jennings Bryan, Will Rogers, Babe Ruth, and Herbert Hoover.
- *March 4, 1921* – First broadcast of a U.S. Presidential inaugural address: Warren G. Harding.
- *March 10, 1921* – First broadcast from a theater: Soprano Ruth Roye's performance at Pittsburgh's Davis Theater.
- *April 11, 1921* – First broadcast of a sporting event: The 10-round, no-decision fight between Johnny Ray and Johnny Dundee in Pittsburgh's Motor Square Garden.
- *July 2, 1921* – First broadcast of a World Heavyweight Boxing Championship, between champion Jack Dempsey and French challenger Georges Carpentier. **Photo B**.
- *August 5, 1921* – First radio play-by-play of a professional baseball game: Pittsburgh Pirates' 8-5 victory over the Philadelphia Phillies.
- *September 20, 1921* – First radio newsroom, with remote pick-up facilities at the Pittsburgh Post newspaper.
- *October 8, 1921* – First play-by-play broadcast of a football game: Pittsburgh's victory over West Virginia University.
- *December 4, 1922* – First musical group established exclusively for radio broadcast: *The KDKA Little Symphony.*
- *July 23, 1982* – First radio station in the world to broadcast in AM stereo.

By Jason Feldman, WPC2COD

ICOM Showcases the New IC-7100 at the Tokyo Ham Fair 2012

Photo A. The ICOM IC-7100 features a slanted front face with a touch screen controller. *(Courtesy of ICOM Inc.)*

ICOM Inc. has shown a new sample of its HF/VHF/UHF amateur radio mobile transceiver with touch screen control called the IC-7100 at the Tokyo Ham Fair 2012.

The IC-7100 is a HF+6M+VHF+UHF, all-mode compact radio with a slanted, touch-screen LCD controller. A first for an ICOM transceiver, the IC-7100 is designed to include the 70-MHz band in European versions where 70 MHz is open to amateur radio enthusiasts. ICOM said that it intends to maintain its commitment to D-STAR by including a standard D-STAR DV mode in all versions of the IC-7100.

A release date and price has not been announced by ICOM as of press time.

Planned Features include:

- Slanted front separated controller with large touch screen dot matrix LCD (controller cannot be attached to body front)
- Speaker is self contained inside the controller
- Full mode (SSB, CW, AM, FM, RTTY decode) and D-STAR DV
- HF (100W)/50MHz, (100W)/70MHz (50W)/144MHz (50W)/430MHz (35W) (Note: Power may be different according to version. The 70-MHz band is available for some versions only)
- Lower current consumption/cooler operation (compared with the IC-7000)
- SWR meter function also works for VHF and UHF bands
- Remote power on/off
- IF DSP for filtering/interference removal/noise reduction
- SD memory card slot, voice recording
- USB audio in/out, remote control
- +/- 0.5ppm frequency stability
- 505 memory channels

TEN-TEC Adds New Adapter to Enhance Connectivity

Photo B. The TEN-TEC REAB-340 Adapter adds Ethernet and USB interfaces to TEN-TEC Models RX-331 and RX-340 radios. *(Courtesy of TEN-TEC)*

TEN-TEC, a Sevierville, TN-based manufacturer of HF radios and accessories, has introduced a new Ethernet adapter to expand the capability of its HF receivers, including those already in the field.

The REAB-340 Adapter adds Ethernet and USB interfaces to Models RX-331 and RX-340 models that are currently controllable only over serial interface.

It also adds real-time audio and input/output streaming. It is powered directly from the host receiver so no external power source will be required.

A basic bench tool GUI is provided to assist customer evaluation without immediate requirement of writing control software. TEN-TEC said the MSRP of the REAB-340 is $295 and should be available this month. *(**VISIT:** TEN-TEC's website for more information: <http://www.tentec.com>)*

Holiday Gift Ideas

DX World Guide
by Franz Langner, DJ9ZB

This 384-page DXer's guide-book is the first edition using color throughout and the first to be entirely in English.

Includes info on well over 300 DX entities. Geographical info, WAZ and ITU zones, ITU callsign allocations, amateur prefixes and more!.

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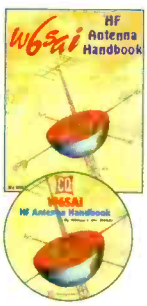
W6SAI HF Antenna Handbook
by Bill Orr, W6SAI



W6SAI was known for his easy-to-understand writing style. In keeping with this tradition, this book is a thoroughly readable text for any antenna enthusiast, jam-packed with dozens of inexpensive, practical antenna projects that work!

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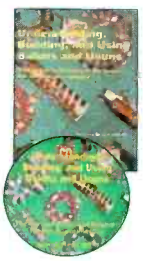
by Jerry Sevick, W2FMI



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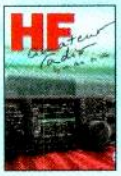

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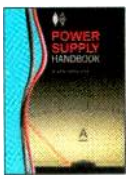

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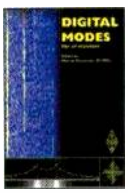

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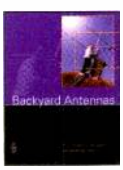

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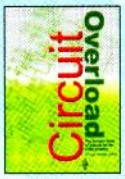

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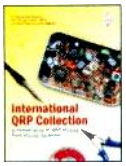

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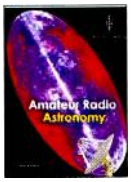

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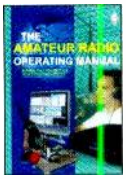

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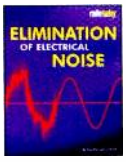

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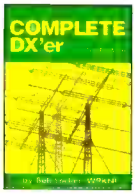

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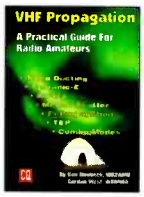

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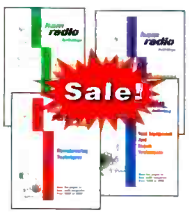

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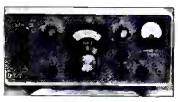

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Super Rock KYOI, Booming From the Box

VKPC3PR Fondly Recalls His Unconventional SWLing — and Having a Ball

Compiled by
Richard Fisher, KPC6PC

"My first shortwave receiver was a three-band boom box . . . I attached a wire to the telescoping antenna and ran it out of my window."
– VKPC3PR

As you can see from our *Pop'Comm Monitoring Station* online database, our listening community keeps growing . . . and growing . . . and growing.

By now, we've easily eclipsed 1,200 members. The support has been tremendous, and the vignettes you've sent of your shortwave and scanning experiences are fascinating, touching, and *so entertaining.*

Here are some more of the nostalgic snapshots you've shared, reflecting the passion so many of you feel about monitoring and being part of our listening community.

Please keep your emails coming in, <PopComm Monitor@gmail.com>. Of course, your photographs are greatly appreciated, as well.

Here's another spin of the dial to tune in to your monitoring memories.

Stewart Wilson, VKPC3PR, Warrnamnbool, Australia

My first shortwave receiver was a three-band *boom box* which covered 2 to 5 MHz, 5.5 to 9 MHz, and 12 to 16 MHz. I attached a wire to the telescoping antenna and ran it out of my window.

Whilst it could never be called a shortwave receiver in its own right, it performed reasonably well. I QSL'd a lot of MW and SW stations, like the great *Super Rock KYOI,* <http://bit.ly/NTQyeB> and <http://www.kyoi.ru/>. **Photo A.** Most of those stations are no longer in existence.

My next receiver was a Yaesu FRG-7 with a 300-foot-long wire. I also used a seven-valve (tube) broadcast (MW) receiver from a grammaphone for listening on the medium-wave bands. It never had the fancy bells and whistles of the FRG-7, but the audio and receive were still superior.

Ron Walerowicz, WPC9DX, Chicago, Illinois

I started out in the early '60s by building a crystal diode radio and was hooked. In 1965 I started SWLing and progressed by building KnightKits and Heathkits. I still have my KnightKit Star Roamer and it *still* works!

I became a ham around 1968 and currently hold an Extra Class ticket with the call K9SX. Was very active in MARS during my tour in the U.S. Air Force during the early-to-mid '70s. Still active in Navy/Marine Corps MARS and also the Civil Air Patrol in which I am a Communications Engineer for the Illinois Wing.

Really enjoy your magazine and can honestly say that I do read it from cover to cover. Nice to see *Plane Sense* back as a regular column. You cannot find a better columnist than Mr. Bill Hoefer, KPC4KDC, writing on Aviation. I know: I've been a licensed pilot since 1973.

Keep up the outstanding work with *Pop'Comm!* All of everyone's work is very much appreciated.

Joseph Rotello, KPC4TN, Knoxville, Tennessee

I was a certified monitor many years ago when *Popular Electronics,* and, as I recall, *Leo and Da Guys*

Photo A. While his boom box "could never be called a shortwave receiver in its own right," writes Stewart Wilson, VKPC3PR, " it performed reasonably well. I QSL'd a lot of medium-wave and shortwave stations, like the great *Super Rock KYOI."* *(Internet screen grab,* <http://www.kyoi.ru/>)

had it running. It was very beneficial to all, and a source of pride to us all.

I started out with an *old* military receiver in 1959 that suddenly died on me when I was 12. Then Dad and I located a Hallicrafters SX-96B, **Photo B**. Today, the SX-96 is in my nephew's hands. My most-liked radio now is the Grundig/Drake/Tecsun Satellit 800 and our Panasonic RF-4600.

In my professional work — actually it was more *fun* than *all work* — I was assigned to NASA, where I worked telecom modules on SkyLab I and II under a Collins contract. Also I was with the NSA *(shhhh! you don't know that)*, and founded my own technology business in Tucson, in which I consulted, traveled to conduct training at Boeing, GE, NASA, and DOD, and frequently conducted SWLing on the road.

So, here we go again, many years later, as we lost the original certification and records in a house flood in the mid-1990s. But, at 61, I still have the SWL pride, and that nasty habit!

Don Tomkinson, KPC6NDB, Upland, California

I have been hooked on DXing LF NDBs (low-frequency non-directional beacons) from about 180 to 530 kHz for most of my adult life. I've logged 1,084, including most of the Pacific, Central and South America, The Caribbean, Canada, Alaska, the United States, and one in Turkey.

Jesse Wadsworth, WPC5ORE, Roswell, New Mexico

I was registered in the old *Popular Electronics* database as WPE5ORE in December 1963, **Photo C**, and am happy to have been issued *Pop'Comm Monitoring Station* ID sign WPC5ORE, **Photo D**.


why is the SX-96 the most wanted receiver on the air?

The Hallicrafters double conversion selectable side band receiver offers major improvements in stability by the addition of temperature compensation in the high frequency oscillator circuits and the use of crystal controlled second conversion oscillators. Hallicrafters highly selective 50 kc i-f system is used in this new precision-built receiver.

Coverage: Standard Broadcast, 538-1580 kc; Three S/W Bands, 1720 kc–34 Mc. Band 1: 538 kc–1580 kc–Band 2; 1720 kc–4.9 Mc–Band 3: 4.6 mc–13 mc–Band 4: 12 mc–34 mc.

Type of Circuit: Double conversion superheterodyne over the entire frequency range.

Type of Signals: AM-CW-SSB.

Features: Precision gear drives are used on both main tuning and band spread dials. Double conversion with selectable crystal controlled second oscillators. Selectable side band reception of both suppressed carrier and full carrier transmissions by front panel switch, delayed AVC, CW operation with AVC on or off. Calibrated bandspread, "S" meter, low drift, double conversion superhet.

Controls: Sensitivity, band selector, volume, tuning, AVC on/off, noise limiter on/off, AM/CW-SSB, Bandspread, selectivity, pitch control, response (pwr on/off, LSB, USB–2 tone pos.), receive-standby.

Intermediate Frequencies: 1650 kc and 50 kc.

Tuning Assembly and Dial Drive Mechanism: Separate 3 section tuning capacitor assemblies for main tuning and bandspread tuning. Circular main tuning dial has 0-100 logging scale. Bandspread dial is calibrated for the 80, 40, 20, 15, and 11-10 meter amateur bands.

Selectivity: Five steps of bandwidth calibration at 6 db pointer; 5 kc, 3 kc, 2 kc, 1 kc, and .5 kc.

Antenna Input Impedance: Balanced/unbalanced.

Headphone Output Impedance: Nominal 500 ohms.

Audio Output Impedance: 3.2/500 ohms.

Automatic Noise Limiter: Series noise limiter operated by toggle switch on front panel.

Carrier Level Indicator: Calibrated in "S" units from 1 to 9, decibles to 90 db over S9, microvolts from 1 to 1000 k.

External Connections: 3.2/500 ohm speaker terminals, terminals for single wire or doublet antenna, phono jack, AC power cord, socket for DC operation and remote control, audio output terminals, "S" meter electrical adjustment and mounting hole for co-axial cable connector. Phones jack on front panel.

Audio Power Output: 1.5 watts with 10% or less distortion.

Power Supply: 105/125 V, 50/60 cycle AC.

Model SX-96—$249.95

Matching R-46B Speaker—$17.95

hallicrafters

4401 West Fifth Avenue
Chicago 24, Illinois

2 • CQ • October, 1955

Photo B. The Hallicrafters SX-96, like the receiver Joseph Rotello, KPC4TN, used when getting started, was a popular radio for decades, as featured in the advertisement in *CQ* magazine in 1955. KPC4TN's nephew is now SWLing with it. *(Courtesy of CQ Communications)*

My first receiver was a Hallicrafters S-120. In 1964 I became a radio amateur — WA5MHQ — and moved to California. There I was required to get a new callsign, so I became WA6CQE, which I still hold today.

Luis Gaud, WPC1LG, South Ozone Park, New York

I have been an avid scanner listener since the early 1980s when I used to own a Realistic Pro-2004 and a Uniden 100xl which no longer work. I remember my monthly trip to the local newsstand to buy my newest issue of *Popular Communications*.

I had quite a collection back then and used them for reference while listening. I used to spend hours scanning the frequencies for interesting stuff to hear, but as time went by, I was too busy with job-related things to continue to do so. In addition, my local newsstand stopped carrying the magazine.

Now recently retired, I have the time to once again enjoy my listening hobby. About a year ago, I purchased an Alinco DJ-X7 wide-band communications receiver and it *was off to the races*. Two weeks ago, I purchased a Uniden BCD996XT and I love it. I listen to everything, but lately I have been DXing on the shortwaves from around the world. Best regards to all at *Pop'Comm!*

Dale J. Blacklock, VEPC6AGT, Sturgeon County, Alberta, Canada

I grew up in rural Alberta on a family farm, listening to AM broadcast band and shortwave radio stations. I still enjoy listening to my collection of radios, including when I go traveling to the Caribbean, and elsewhere.

Jeff Murray, WPC2GEP, Accord, New York

Thanks, *Pop'Comm*. I feel 11 years old again! My new monitoring station ID sign is an echo of my original *Popular Electronics* ID —

Photos C and D. Jesse Wadsworth, WPC5ORE, of Roswell, New Mexico, registered in the old *Popular Electronics* database as WPE5ORE in December 1963. He's glad to have been issued a similar station identification sign in the *Pop'Comm Monitoring Station* program.

WPE2GEP — which I painted on a 10-inch by 24-inch strip of Masonite to decorate my Ocean Hopper monitoring operations center, based on a broken card table in a bedroom I shared with my baby brother.

I anticipate becoming a *Popular Communications* online regular, and I look forward to scouring hamfests for blank vintage Masonite.

John Ciccolella, WPC3SWL, Milford, Pennsylvania

This year marks my 25th in amateur radio, but I have been an SWL for more than twice that long: *52 years of shortwave listening.*

I ran my first random wire at age eight by climbing to the top — three stories — of our backyard clothesline pole with a roll of bell wire to hook to my eight-transistor GE AM/SW portable. Our house was along the New Jersey Palisades overlooking Manhattan.

I've been climbing and SWLing ever since.

Leonard Gordon, WPC7CLO, Cheyenne, Wyoming

As a youth, I got a job watching a neighbor's dog and the payment was a Hallicrafters S-40B. I have been hooked on radio since. I now hold an Amateur Extra license: KD7CLO.

You have the best radio magazine on the market! Thanks!

Brian Dick, WPC3LNA, Hadley, Pennsylvania

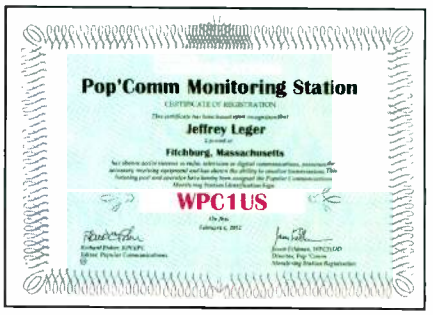
When I was first licensed as a ham nearly 30 years ago, one of my early Elmers was W3LNA. His experiences in the early days of radio made quite an impression with me as a young teen, who just got his Novice license. To this day, his stories resonate with me about the essence of radio.

He's a Silent Key now, but my *Pop'Comm Monitoring Station* identification sign is a nice way to memorialize him.

(Continued on page 82)

New Members: *Pop'Comm Monitoring Station Program*

Here are the newest *Pop'Comm Monitoring Stations* granted a station identification sign, authorized to receive a Certificate of Registration, and welcomed to the *Pop'Comm Monitoring Station* program.



KPC and DX Prefixes

Monitoring stations are listed by name, station identification sign, and listening post location.

David Stewart, **VEPC4DXR**, Steinbach, Manitoba, Canada; Colin Sandulak, **VEPC6CS**, Lethbridge, Alberta, Canada; Donald Goedke, **KPC4PI**, Coral Springs, FL; George Michaels, **KPCØGLM**, Monroe Township, NJ; Lloyd Loomis, **KPCØLJL**, Augusta, KS; Gayle Adams, **KPC8KWG**, Columbus, OH; David Murphy, **KPC4FFQ**, Lynchburg, VA; John Vickers, **VAPC2VJ**, Chicoutimi, Québec, Canada; Greg Fox, **KPC7CYP**, Everett, WA; Pete Theer, **KPC5PRT**, Kempner, TX; Glenn Davis, **VEPC3GD**, Cardinal, Ontario, Canada; Don Foote, **KPC7EPF**, Roy, UT; Randall Rhode, **KPC1YIP**, Canton, MI; Levi, Maaia, **KPC6LCM**, Santa Barbara, CA; Jeffrey Beals, **KPC2AA**, Dothan, AL; Karl Krassler, **KPC1RXO**, Holyoke, MA; Frederick Bennett, III, **KPC2AAM**, Ogdensburg, NY; Joseph Sylvester, **KPC4JRS**, Haymarket, VA.

WPC Prefixes

Also: Jeffrey Leger, **WPC1US**, Fitchburg, MA; Mark Haskell, **WPC9UJS**, Valrico, FL; S.S. American Victory, **WPC4AVM**, Tampa, FL; Russell Anderson, Jr., **WPC8WPR**, Wilmington, MA; Lewis Greene, Jr., **WPC4HTW**, Crewe, VA; Ken Caruso, **WPC1HLL**, North Billerica, MA; Gary Hoffman, **WPC8FRN**, Wauwatosa, WI; James Frazier, **WPC5JDF**, Hominy, OK; Gregg Crump, **WPC8GEO**, Harrison Township, MI; John Beregi, **WPC3HTF**, Phoenixville, PA; Robert Wilcox, **WPC9IDG**, LaGrange, IL; Stephen Wood, **WPC1SCW**, Harwich, MA; Michael O'Connor, **WPC3HCG**, Indian Head, MD; Drue Powers, **WPCØOSC**, Red Oak, IA; Dwight Spaulding, **WPC9PGB**, North Vernon, IN; Jim Keil, **WPC2SCR**, Matawan, NJ; Holton Brown, **WPC3FUZ**, Baltimore, MD; John Dyer, **WPC5PL**, Cisco, TX; Mark Killmon, **WPC4KSO**, Amissville, VA; Dennis Lunsford, **WPC9AFE**, Cambridge City, IN; Richard Foster, **WPC9OUE**, Naperville, AL; Neal Miller, **WPC4UDD**, Midland, AL; Arthur Audley, **WPC3ART**, La Plata, MD; Jim Larson, **WPCØEPT**, Anchorage, AK; Robert Davidson, **WPC3RWD**, Waldorf, MD; James Shaw, **WPC8JS**, New Carlisle, OH; James McWain, **WPC5AU**, Tyler, TX; David Lewis, **WPC4JPB**, Goodlettsville, TN; Alan Davenport, **WPC7APD**, Keizer, OR; Bob Weaver, **WPC4WXB**, Sheffield, AL; Bob Aluska, **WPC2RFA**, Massapequa, NY.

For complete information on the Pop'Comm Monitoring Station Program and to join, visit Pop'Comm Monitors On the Web: <http://popcommmonitors.blogspot.com>.

– Jason Feldman, WPC2COD
Director, PCMS Registration
<PopCommMonitor@gmail.com>

Understanding and Appreciating the Ionosonde

by Tomas Hood, NW7US, WPC7USA
<nw7us@arrl.net>

"The time it takes between an ionosonde pulse transmission and the returned echo is analyzed to determine ionospheric characteristics"

Readers of this column have read about the ionosphere and how a range of radio frequencies can be reflected by the ionosphere in such a way that we can communicate by radio over distances beyond line-of-sight. The ionospheric density and energy level are both affected by energy from the Sun, and they change throughout the day and season, and from year-to-year.

Scientists and propagation observers measure the ionosphere by using special radio equipment called an *ionosonde* — also known as a *chirp sounder* because chirps, or radar emissions, are used to examine the ionosphere. This is accomplished by a shortwave transceiver that can quickly tune through the whole shortwave range, sending and listening on each frequency.

Special antennas are used because the transmitting antenna must have the correct matching impedance between the transmitter and the antenna array. The receiving antennas have to be directional, as well, and able to hear signals on each of the frequencies in the sweep made by the transmitter.

The ionosonde transceiver steps through a series of frequencies from low to high. As it transmits on each frequency between 1 and 20 MHz, the transceiver sends a rapid pulse straight up into the ionosphere. Between these pulses, the ionosonde listens for an echo of the transmitted pulse. The time it takes between the sending of a pulse and the returned echo is analyzed to determine ionospheric characteristics.

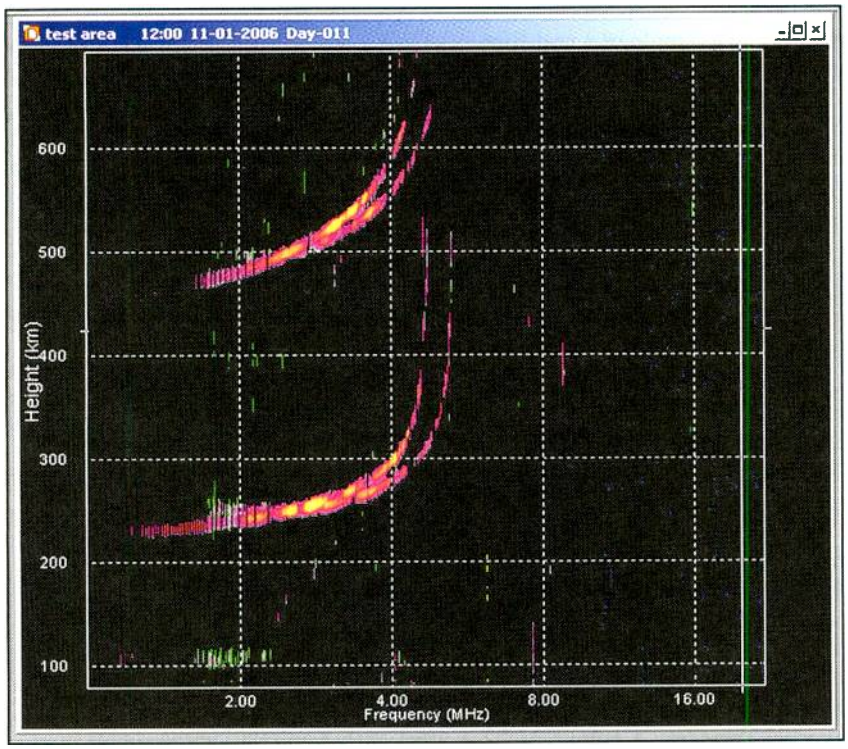


Figure 1. This is a sample ionogram recorded at the Niue Observatory: Latitude -19.07°, Longitude:190.07°. *(Source: John Caruana, IPS)*

The Ionogram and Its Interpretation

Each echo is plotted by frequency and time on a graph called an *ionogram*. When echoes are no longer returned, the ionogram illustrates the highest frequency on which an echo was returned, and shows the return time as a distance from the ionospheric layer from which the echo was returned.

These plotted measurements, typically made every 15 minutes, allow the ionosonde to map out the various layers of the ionosphere (the E-, D-, F_1-, F_2-, and F_3-region mappings). Each ionospheric region shows up as an approximately smooth curve, separated from one another by an asymptote at the critical frequency of that layer. According to Wikipedia, "an asymptote is a straight line or curve A to which another curve B (the one being studied) approaches closer and closer as one moves along it. As one moves along B, the distance between it and the asymptote A tends to become smaller and smaller overall, and eventually never becomes longer than any specified distance. A curve may or may not touch or cross its asymptote. In fact, the curve may intersect the asymptote an infinite number of times, but its maximal deviation from the asymptote keeps getting smaller." ***(IN DEPTH:** See the full Wikipedia entry on the asymptote at <http://bit.ly/SJH868>. – KPC7USA)*

On the ionogram, the upwardly curving sections at the beginning of each region are due to the transmitted wave being slowed by, but not reflected from, underlying ionization. This is

caused by the underlying ionization that has a plasma frequency close to, but not equaling the transmitted frequency.

For frequencies approaching the level of maximum plasma frequency in the ionospheric region, the virtual height tends to approach infinity because the pulse must travel a finite distance at a speed that is effectively zero. The frequencies at which this occurs are called the "critical frequencies." The critical frequency of each ionospheric region is scaled from the asymptote, and the virtual height of each region is scaled from the lowest point on each curve.

The notation for the critical frequency of the F_2 layer is "foF_2," and "foF_1" indicates the critical frequency of the F_1 layer at the location of the ionosonde. From these frequencies, the "Maximum Usable Frequency" (MUF) of a given radio transmission path through that geographical point can be extrapolated. The MUF describes the maximum radio frequency on which a radio signal can be propagated by ionospheric reflection at the point where the ionosonde measured the critical frequencies. The MUF is the upper frequency limit that can be used for transmission between two points at a specified time, with the location of the ionosonde being at midpoint of a single "hop" or reflection off the ionosphere.

An ionogram can show a number of phenomenon, including the various F-layers, D-layer absorption, and Sporadic E (E_s) occurrences. Sporadic-E refers to the propagation of radio waves by reflections off patchy and very dense "clouds" in the E-layer. These clouds can sometimes reflect radio frequencies as high as the low VHF radio spectrum.

Despite their intensity, these highly ionized patches do not extend over a large height range, and so do not exhibit an asymptote at the critical frequency. They are plotted on the ionogram as a narrow horizontal line at around 100 kilometers. One problem that may occur during a sounding is "blanketing." Blanketing prevents any echoes from reaching higher ionospheric layers when an intense E_s layer blocks the ionosonde chirps.

When turbulence occurs in the ionosphere, perhaps due to geomagnetic storms, the stratified nature of the ionosphere gives way to a more complex structure. When this happens, the chirps may not be echoed. This shows up on the ionogram as gaps in the curve. These gaps are called "Lacuna." The position of these gaps on an ionogram shows the height at which the turbulence is occurring.

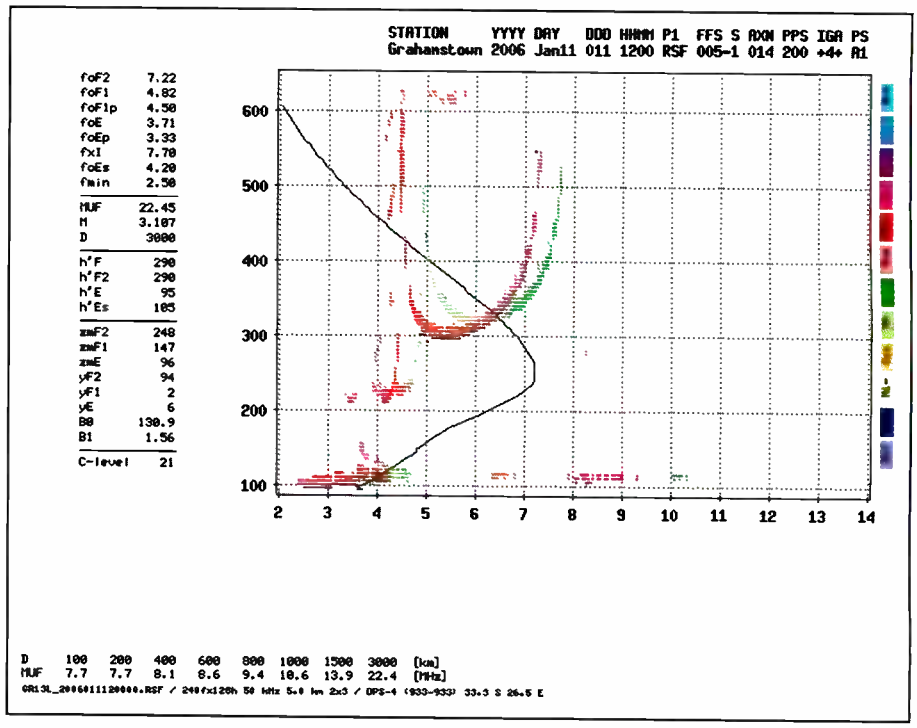


Figure 2. Here is another example of an ionogram, recorded at Grahamstown, South Africa: Latitude: -33.3°, Longitude: 26.5°. *(Source: Dr. Lee-Anne McKinnell. Space Physics Group, Hermanus Magnetic Observatory/Dept. of Physics and Electronics, Rhodes University)*

An Example of An Ionosonde

Figure 3 is an example of a real-time ionogram recorded at Rome. Notice the strong curves between about 250 km and 400 km. There are second curves at 450 km to 650 km, as well. From these curves, the critical frequency of the F_2 layer is determined to be 7.8 MHz. The straight plot at 104 km is a Sporadic-E plot, but no supported frequency was calculated. The F_2 MUF for a 3,000-km hop is calculated to be 25.3 MHz.

The Chilton Ionosonde

There are many ionosondes around the world. One that provides useful ionograms is the Digital Portable Sounder (DPS) at Chilton, England. This ionosonde was originally designed as a research instrument. It is a very flexible system capable of recording quality data obtained from a pulse of just 300 watts. The transmitter antenna consists of a *crossed delta* — two orthogonal triangles with a vertical apex at a height of 27 meters and with a base 50-meters across. The receiver is a phased array of four crossed-loop antennas 5 feet in diameter. Three of the aerials are positioned on the vertices of an equilateral triangle with 60-meter sides. The fourth is in the center of the triangle.

Because the receiving antennas form an array, it is possible to infer much more information from the return echo. The DPS can determine the polarization, Doppler shift, and direction of arrival of each echo in a sounding, as well as the frequency and virtual height of the chirp.

By using the many ionograms published on the Internet, a savvy radio hobbyist can assess the ever-changing propagation conditions over various regions of the world, in near-real time.

Next month, we'll look at using these ionograms in NVIS (Near Vertical Incidence Skywave propagation) operation.

HF Propagation

Paths on 31 through 19 meters are becoming ever more reliable between North America and Europe in the morning and between North America and Asia during the late afternoon hours. The strongest openings occur for a few hours after sunrise and during the sunset hours.

Thirty-one and 25 meters will often remain open into many areas late into the

Optimum Working Frequencies (MHz) - For November 2012 - Flux = 138, Created by NW7US

UTC TO/FROM US WEST COAST	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CARIBBEAN	24	22	18	15	14	13	13	12	12	12	11	11	11	15	21	23	25	26	27	27	27	27	26	25
NORTHERN SOUTH AMERICA	33	31	27	22	21	20	18	17	17	16	16	15	15	14	25	28	31	33	34	35	36	36	36	35
CENTRAL SOUTH AMERICA	33	30	25	21	20	19	18	17	16	16	15	15	15	18	28	30	31	33	34	34	35	35	35	35
SOUTHERN SOUTH AMERICA	35	33	31	26	24	22	20	19	18	17	17	16	16	15	22	28	32	33	35	36	36	37	37	37
WESTERN EUROPE	11	11	10	10	10	10	10	10	10	10	10	10	10	13	17	19	20	20	19	18	17	13	12	11
EASTERN EUROPE	10	10	10	10	10	11	11	11	10	10	10	10	10	10	15	16	16	15	14	13	11	11	10	10
EASTERN NORTH AMERICA	26	24	18	15	15	14	14	13	13	13	12	12	12	19	24	26	28	29	30	30	30	30	29	28
CENTRAL NORTH AMERICA	15	14	13	9	8	8	8	7	7	7	7	7	7	7	11	13	15	15	16	16	17	16	16	16
WESTERN NORTH AMERICA	8	8	7	6	4	4	4	4	4	4	3	3	3	3	3	6	7	8	8	9	9	9	9	9
SOUTHERN NORTH AMERICA	26	24	21	16	15	14	13	13	12	12	12	11	11	11	19	23	25	26	27	28	28	28	27	27
HAWAII	24	23	22	21	19	15	14	13	12	12	11	11	10	10	10	10	14	18	21	22	23	24	24	24
NORTHERN AFRICA	11	11	10	10	10	10	10	11	10	10	10	10	10	15	18	20	21	22	21	18	13	12	12	11
CENTRAL AFRICA	14	14	13	12	12	11	11	11	10	10	10	10	10	14	18	19	20	21	22	19	18	17	16	15
SOUTH AFRICA	23	21	15	15	14	13	13	13	12	12	12	12	12	20	23	25	27	28	28	28	28	28	27	25
MIDDLE EAST	10	10	10	10	10	11	11	11	10	10	10	10	10	10	16	18	19	18	13	12	12	11	11	11
JAPAN	23	23	22	21	19	17	13	12	12	11	11	11	10	10	10	10	10	10	10	10	16	20	21	23
CENTRAL ASIA	23	23	22	21	19	17	13	12	11	11	11	11	10	10	10	10	12	13	13	13	13	12	22	23
INDIA	15	15	16	16	14	12	11	11	10	10	10	10	10	10	10	10	10	11	13	13	14	14	15	15
THAILAND	23	22	21	20	19	16	12	12	11	11	11	10	10	10	10	10	13	16	15	14	14	13	13	18
AUSTRALIA	30	32	33	32	29	23	20	19	18	17	16	16	15	15	15	15	20	19	18	17	20	23	26	28
CHINA	21	22	21	20	18	15	12	12	11	11	11	10	10	10	10	10	11	10	10	10	10	10	16	19
SOUTH PACIFIC	35	36	35	32	29	24	22	21	20	18	17	17	16	16	15	15	18	18	20	24	27	30	32	33

UTC TO/FROM US MIDWEST	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CARIBBEAN	27	23	21	19	18	17	16	15	14	14	13	13	15	22	26	28	30	31	31	32	31	31	30	29
NORTHERN SOUTH AMERICA	30	28	25	23	21	19	18	17	16	15	15	14	14	21	24	27	29	30	32	33	33	34	33	32
CENTRAL SOUTH AMERICA	32	28	25	23	21	20	19	18	17	16	16	15	19	26	28	30	32	33	34	35	35	35	35	34
SOUTHERN SOUTH AMERICA	35	32	29	26	24	22	21	19	18	17	17	16	16	22	28	30	32	33	35	36	36	37	37	36
WESTERN EUROPE	11	11	10	10	10	10	10	10	10	10	10	10	16	19	20	21	21	21	20	19	18	15	12	11
EASTERN EUROPE	10	10	10	10	10	10	11	10	10	10	10	10	14	18	19	18	18	18	17	16	14	11	11	11
EASTERN NORTH AMERICA	18	15	12	11	10	10	10	9	9	9	9	9	10	17	19	20	21	22	22	22	22	21	21	20
CENTRAL NORTH AMERICA	9	8	6	5	5	5	4	4	4	4	4	4	4	6	8	9	9	10	10	10	10	10	10	9
WESTERN NORTH AMERICA	15	14	13	9	9	8	8	8	7	7	7	7	7	7	11	14	15	16	16	17	17	17	17	16
SOUTHERN NORTH AMERICA	18	16	13	11	11	10	10	9	9	9	8	8	8	11	15	17	18	19	20	20	20	20	19	19
HAWAII	27	26	24	21	16	15	14	13	13	12	12	12	12	11	11	12	17	22	25	27	28	28	28	28
NORTHERN AFRICA	14	13	12	12	11	11	11	10	10	10	10	10	18	20	22	23	23	24	24	24	17	16	15	14
CENTRAL AFRICA	15	13	12	12	11	11	11	10	10	10	10	10	18	20	21	22	23	23	24	21	19	18	17	16
SOUTH AFRICA	23	20	19	18	17	16	16	15	15	15	14	14	26	30	33	35	36	36	36	35	34	30	28	25
MIDDLE EAST	11	10	10	10	10	11	11	10	10	10	10	10	16	19	21	22	21	19	14	13	12	12	11	11
JAPAN	22	21	20	17	13	12	12	11	11	11	10	10	10	10	10	11	10	10	10	10	15	19	21	22
CENTRAL ASIA	22	21	19	17	13	12	11	11	11	11	10	10	10	10	10	14	14	13	13	13	12	12	21	22
INDIA	14	15	15	12	11	11	11	10	10	10	10	10	10	14	17	16	15	12	11	11	10	10	10	10
THAILAND	21	20	18	15	12	12	11	11	11	10	10	10	10	10	14	18	17	16	15	14	14	13	13	16
AUSTRALIA	30	32	31	28	21	19	18	17	17	16	16	15	15	15	14	21	20	18	18	17	21	24	26	29
CHINA	20	20	18	15	12	12	11	11	11	10	10	10	10	10	11	11	11	11	10	10	10	10	13	18
SOUTH PACIFIC	36	34	32	28	24	22	21	20	18	18	17	16	16	15	17	19	18	18	22	26	29	31	33	34

UTC TO/FROM US EAST COAST	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CARIBBEAN	21	19	17	16	15	14	13	12	12	11	11	11	16	20	22	24	25	25	26	26	26	25	24	23
NORTHERN SOUTH AMERICA	27	25	23	21	19	18	17	16	15	14	13	13	17	20	23	25	27	28	29	29	30	30	30	29
CENTRAL SOUTH AMERICA	32	29	26	24	22	21	19	18	17	17	16	19	24	26	28	30	32	33	34	34	35	35	35	34
SOUTHERN SOUTH AMERICA	34	31	29	26	24	22	21	19	18	17	17	16	22	26	28	31	32	34	35	36	36	37	37	36
WESTERN EUROPE	11	10	10	10	10	9	9	9	9	9	13	18	20	21	22	22	21	21	20	19	18	15	12	11
EASTERN EUROPE	11	10	10	10	10	10	10	10	10	10	10	17	20	21	21	20	20	19	18	17	14	12	11	11
EASTERN NORTH AMERICA	8	6	6	5	5	5	5	4	4	4	4	4	7	9	10	10	10	11	11	11	11	10	10	9
CENTRAL NORTH AMERICA	19	16	12	11	11	11	10	10	10	9	9	9	12	18	20	21	22	23	23	23	23	23	22	21
WESTERN NORTH AMERICA	26	24	18	15	15	14	14	13	13	13	12	12	12	19	24	27	28	29	30	30	30	30	29	28
SOUTHERN NORTH AMERICA	21	18	15	14	13	13	12	11	11	11	10	10	11	18	21	23	24	24	25	25	25	24	24	23
HAWAII	27	25	20	17	16	15	14	14	13	13	13	12	12	14	13	13	19	24	27	29	30	31	30	29
NORTHERN AFRICA	15	14	13	13	13	13	12	12	12	12	19	24	27	28	29	30	30	29	27	25	20	17	16	15
CENTRAL AFRICA	16	15	14	14	13	13	13	12	12	12	19	24	27	28	30	30	30	29	27	24	21	20	18	17
SOUTH AFRICA	23	22	20	19	18	17	17	16	16	15	17	26	31	33	35	36	36	36	36	35	34	30	28	25
MIDDLE EAST	13	12	12	11	11	11	10	10	10	10	15	19	21	23	23	24	24	24	21	16	15	14	14	13
JAPAN	20	17	13	12	12	11	11	11	10	10	10	10	10	11	11	11	10	10	10	10	12	18	20	21
CENTRAL ASIA	19	16	12	12	11	11	11	10	10	10	10	10	14	15	15	14	13	13	13	13	12	12	19	21
INDIA	10	10	10	11	11	11	10	10	10	10	10	14	15	15	15	15	15	15	14	14	13	11	10	10
THAILAND	17	13	12	11	11	11	11	10	10	10	10	10	17	20	19	18	17	16	15	14	14	13	13	13
AUSTRALIA	31	30	24	21	20	19	18	17	16	16	15	15	15	21	22	21	20	18	17	17	21	24	27	29
CHINA	18	13	12	12	11	11	11	10	10	10	10	10	13	12	12	11	11	11	10	10	10	10	10	16
SOUTH PACIFIC	34	32	28	25	23	22	20	19	18	17	17	16	15	21	20	19	18	20	25	28	31	33	35	36

night and will open early in the morning, especially when part of the propagation path moves through sunlit regions. Twenty-two and 19 may still offer nighttime paths, though these will become less reliable later in November.

Nineteen, 22, and 25 meters compete with 16 for the good daytime DX during November. They will open for DX just before sunrise and should remain open from all directions throughout the day, with a peak in the afternoon. Nighttime conditions will favor openings from the south and tropical areas. Since the Southern Hemisphere has long daylight hours, DX paths on these bands from stations in the south will be common.

The all-season bands, 31 and 25 meters, are crowded and signals are usually very strong and steady. Twenty-five meters is expected to be an excellent band for medium distance (500 to 1,500 miles) reception during the daylight hours. Longer distance reception (up to 2,000 to 3,000 miles) should be possible

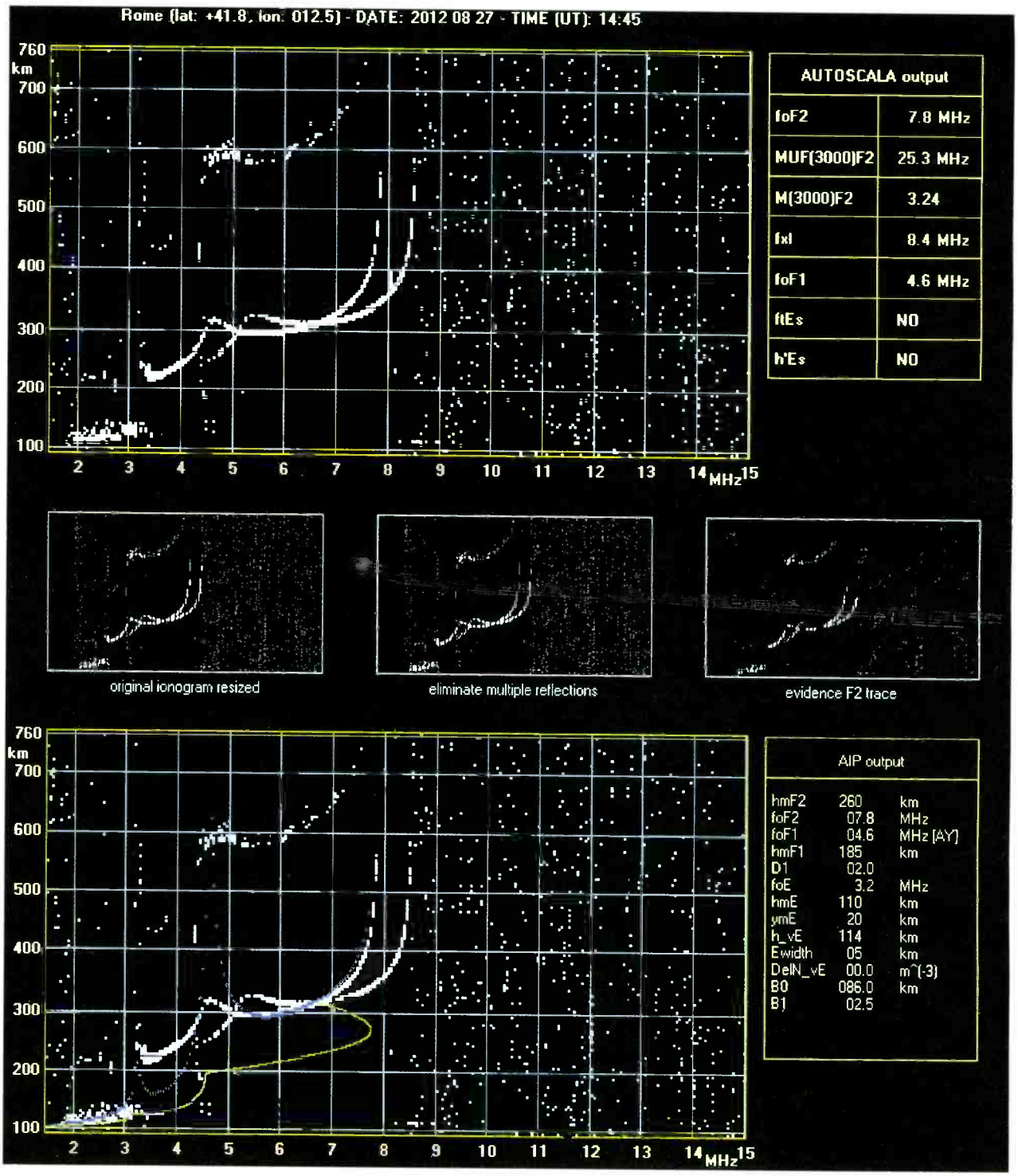


Figure 3. Here's an example of the real-time ionogram recorded at the Rome Observatory at 41.8 North, 12.5 East. The ionospheric characteristics given as output were automatically scaled by Autoscala program. The AIS-INGV/Autoscala system was developed at the Istituto Nazionale di Geofisica e Vulcanologia (INGV), Rome, Italy, <http://ionos.ingv.it/Roma/latest.html>. *(Source: Istituto Nazionale di Geofisica e Vulcanologia – INGV)*

for an hour or two after local sunrise, and again during the late afternoon and early evening.

Heavy congestion will occur here since many international and domestic broadcasters make use of 25 meters. Thirty-one meters, the backbone of worldwide shortwave broadcasting, will provide medium-distance daytime reception ranging between 400 and 1,200 miles. During November, reception up to 2,500 miles is possible during the hours of darkness, and until two to three hours after local sunrise. Thirty-one meters, too, is highly congested, making reception of weak exotic signals a bit more of a challenge.

Thirteen and 16 meters will be open during a fair number of days through November when flux levels remain above 100. Paths from Europe and the South Pacific as well as from Asia, at least during days of higher solar flux levels, are common, especially on 16 meters. Look for best conditions from Europe and the northeast before noon and from the rest of the world during the afternoon hours. Reception from the South Pacific, Australia, New Zealand, and the Far East should be possible well into the early evening. At this stage in the solar cycle, the 10.7-cm flux levels are too low to sustain band openings at these frequencies for long, if at all.

Seventy-five through 120 meters are coming alive, though. Signals below 120 meters are improving, too. Throughout November, expect an improvement in nighttime DX conditions on these bands. Since the night is longer, and there is the seasonal decrease in static "noise" levels, expect good long-range DX on the low bands, starting with signals from closer locations right after sunset, and then extending to areas farther away as the night develops. Europe should be possible in the late evening. DX paths will move farther west through the night. By morning openings from Asia should be common.

VHF Conditions — Meteor Showers

One of the largest yearly meteor showers occurs during November. Appearing to radiate out of the constellation of Leo on the night (0536 UTC) of November 20, the Leonids are known to create intense meteor bursts. Since the source of the Leonids, the Tempel-Tuttle comet, passed closest to the sun in February of 1998, the years following were expected to produce very strong displays.

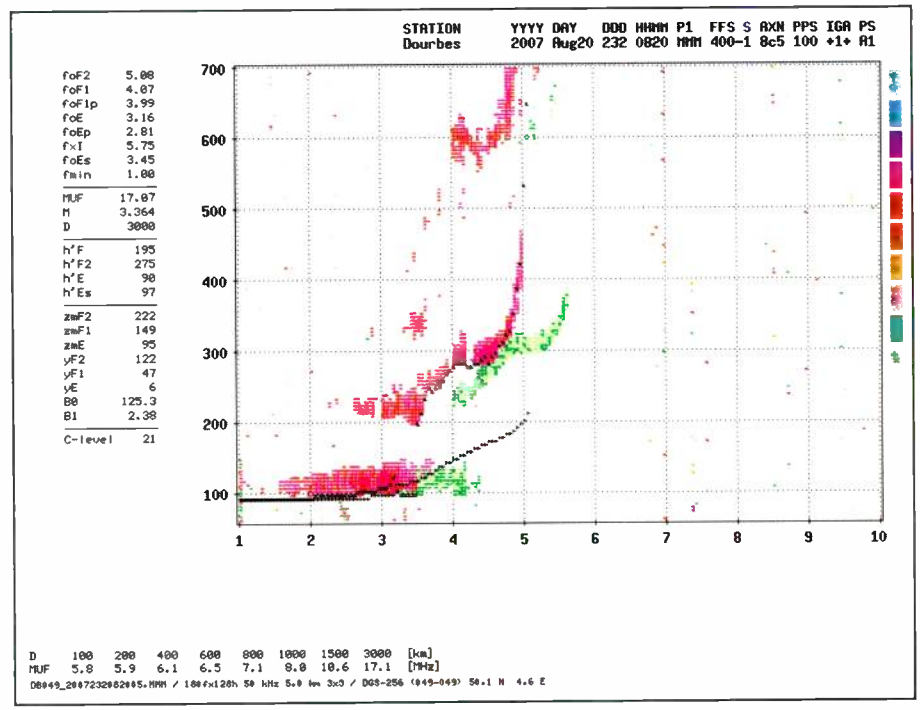


Figure 4. This is an ionogram using the "digisonde" from August 20, 2007 at Dourbes, Belgium, <http://digisonde.oma.be/>. The digisonde is an advanced ionosonde created by MIT's Lowell Center for Atmospheric Research. *(Source: Royal Meteorological Institute of Belgium/University of Massachusetts Lowell*

The greatest display since 1998 was the peak of 3,700 per hour in 1999. Every year since has been significantly less spectacular. However, a few forecasters think that we still might have a meteor storm with an hourly rate of thousands sometime in the next several years.

Last year was not spectacular, but this year might be. However, if this year is more typical of the last few, we'll see a rate of several hundred per hour. The large, spectacular visuals might only be 10 to 20 per hour, but when we are talking about meteor-scatter radio propagation, we count any meteor-formed plasma clouds that will support VHF radio signals.

The best time to work meteor scatter off the Leonids is around 11:30 p.m. local time in the Northern Hemisphere. The shower should increase in rate the closer you get to midnight, and then move toward pre-dawn.

Working Meteor Scatter

Meteors are particles (debris from a passing comet) ranging in size from a speck of dust to a small pebble, and some move slowly while some move fast. When you view a meteor, you typically see a streak that persists for a little while after the meteor vanishes.

This streak is called *the train* and is basically a trail of glowing plasma left in the wake of the meteor. It enters Earth's atmosphere traveling at speeds of over 158,000 miles per hour.

Besides being fast, the Leonids usually contain a large number of very bright meteors. The trains of these bright meteors can last from several seconds to several minutes. It is typical for these trains to be created in the E-layer of the ionosphere.

Meteor-scatter propagation is a mode where radio signals are refracted off these trains of ionized plasma. Because the height of these plasma trains is in the E-layer of the ionosphere, the range of a meteor scatter contact is between 500 and 1,300 miles. The frequencies that are best refracted are between 30 and 100 MHz. However, with the development of new software and techniques, frequencies up to 440 MHz have been used to make successful radio contacts off these meteor trains.

Lower VHF frequencies are more stable, and last longer, off these ionized trails. A 6-meter contact may last from a second to well over a minute. The lower the frequency, the longer the specific opening made by a single meteor train. Conversely, a meteor's ionized train that supports a 60-second long refraction on 6 meters might only support 1-second refraction of a 2-meter signal. Special high-speed digital modulation modes are used on these higher frequencies to take advantage of the limited available time, such as high-speed CW, in the neighborhood of hundreds of words per minute.

Current Solar Cycle Progress

The Royal Observatory of Belgium reports that the monthly mean observed sunspot number for July 2012 is 66.5. The lowest daily sunspot value of 19 was recorded on July 21 and 22. The highest daily sunspot count was 97 on July 7. The 12-month running smoothed sunspot number centered on January 2012 is 65.5. A smoothed sunspot count of 84, give or take about 9 points, is expected for November 2012.

The Dominion Radio Astrophysical Observatory at Penticton, BC, Canada, reports a 10.7-cm observed monthly mean solar flux of 135.6 for July. The 12-month smoothed 10.7-cm flux centered on January 2012 is 124.4. The predicted smoothed 10.7-cm solar flux for November 2012 is 138, give or take about 9 points.

The observed monthly mean planetary A-Index (A_p) for July 2012 is 13. These figures are starting to edge higher, overall. The 12-month smoothed A_p index centered on January 2012 is 8.3. Expect the overall geomagnetic activity to vary greatly between quiet to moderate storm level during November, since the increased sunspot activity also includes flares and related space weather.

Refer to the Last Minute Forecast as published in this month's issue of *CQ* magazine's *Propagation* for the outlook on conditions during this month. You can find the online version of this outlook at <http://sunspotwatch.com>.

I'd Like to Hear From You

You can join in with others in discussing space weather, propagation, and shortwave or VHF listening at <http://hfradio.org/forums/>. Be sure to check out the latest conditions, as well as the educational resources about propagation, which I have put together for you at <http://prop.hfradio.org/>. I also provide a WAP/WML resource for wireless devices. If you want the latest propagation information such as the solar flux, A_p reading, and so forth, check out <http://wap.hfradio.org/>, the wireless version of my propagation site.

Please don't hesitate to write and let me know about any interesting propagation that you have noticed. Do you have questions about propagation? I look forward to hearing from you. Happy signal hunting!

73 de NW7US, Tomas Hood
nw7us@nw7us.us
(P.O. Box 27654, Omaha, Nebraska 68127)

Listen Up, SWLers: Papua New Guinea is Back

by Gerry L. Dexter, WPC9GLD
<gdex@wi.rr.com>

"Papua New Guinea stations have not been prone to issue QSLs of late. So this might be a good time to give them another try. But I can't guarantee anything!"

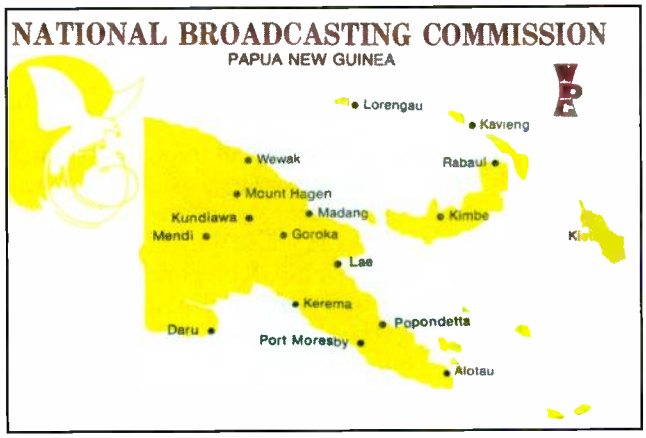
Perhaps it was due to the need for additional coverage during Papua New Guinea's (PNG) national elections, but for whatever the reason, last summer the country's National Broadcasting Commission suddenly re-energized its main station at Port Moresby on 4890 kHz.

It also restarted its long-unused outlet on 6040. Both frequencies were quite well and widely heard. Additionally, many of the 90-meter PNG stations seem to have been reactivated. However, the PNGs have not been prone to issue QSLs of late. So this might be a good time to give them another try. *But I can't guarantee anything!*

Waves from Former Italian Somaliland

There is word that **Radio Hargeisa**, in the former Italian Somaliland, is due back on the air soon, having been supplied a 100-kilowatt transmitter by the Chinese. Long-time, well-known SWBC DXpert Don Jensen, of Kenosha, Wisconsin, has unearthed information that the station will, in fact, be on shortwave — and that it is likely to use a frequency on or close to its former spot — 7120.

With a transmitter manufactured by the BBEF Electronics Group Co. — formerly called the Beijing Broadcast Equipment Factory — its website, <http://www.radiohargaysa.net/>, also hints at projects involving transmitters in Cuba, North Korea, Ethiopia and Venezuela. We don't really know if the sudden decrease in the number of shortwave transmitters operated by the *good guys* are being replaced by those from the *not-so-nice* side.



The NBC stations in Papua New Guinea seem to be alive and reasonably ticking late on 90 meters

And Around the Dial . . .

Radio Republik Indonesia has reactivated the RRI station at Makassar, (Sulawesi), on 4750. Like all 60/90 meter-band Indos, this one shows up — *if it does!* — during the hours around dawn.

Radio Rio Mar, Manaus, Brazil, has recently been noted on 9695.

And I've neglected to mention the new Colombian calling itself **Salem Stereo** using the unusual frequency of 14950 in USB. The station is located in Rio Blanco, Toloma State. Whether or not this station is using a converted amateur radio transmitter is unclear – but either way, it is probably an unlicensed station. Assuming it's still on the air, it's being heard in the late afternoon and early evening.

Likewise, a Nicaraguan station, the **Pascador Preacher**, has been active on 8989, also in USB, around 0000 in Spanish taking telephone calls. It appears to be targeting its broadcasts to fishermen. This one may have been active only briefly.

With the ever-changing complexion of the state of Syria, it is interesting to follow **Radio Damascus,** <http://www.rtv.gov.sy>. It is still scheduled in English at 2100-2200 on 9330. *Let me know if you hear 'em!*

Remember November!

Let me remind you that we're now in November, and with the end of October we closed out the A-12 broadcast season and are beginning B-12. That means many, or most of the international broadcasters will play the frequency shuffle game, so you had better be careful with IDs for a while. The end of October also marked the end of all the relays from Sackville. *Things may get messy for a time!*

A Teaching Moment

Speaking of messes, be warned that I'm about to go into another rant regarding the logs you submit to this column — *as welcome as they are!*

It continues to get more and more difficult to

Radio Japan sent this QSL to Rich D'Angelo for his reception of their broadcast via Chile on 6145 and 11880.

The Rhein Main Radio Club of Germany confirmed Rich D'Angelo's reception of their special broadcast via Lithuania back in September.

sort out your contributions. There are the occasional logs which do not include a frequency or a time, or they involve the practice of submitting the same log two or more times: *Same* meaning the *same station*, the *same frequency*, from the *same transmitting site* — sometimes even on the *same date!*

Given a little thought, it should not be difficult to set up a system in which you do an edit of your log report before submitting. Do all that and include the transmitting site and, in countries with more than one station, the city of license. That will save plenty of wear and tear on my copy of the *WRTH*. I simply can't remember all the Brazilian, Bolivian, Indian, Chinese and Indonesian station locations at the drop of a frequency. *Your cooperation is gratefully appreciated!*

That Said . . .

Remember, your shortwave broadcast station logs are *always welcome*. But *please* be sure to double or triple space between the items, list each logging according to home country and include your last name and state abbreviation after each.

Also needed are spare QSLs or good copies you don't need returned, station schedules, brochures, pennants, station photos, and anything else you think would be of interest. And how about sending a photo of you at your listening post? It's your turn to grace these pages!

What's Happening

Here are this month's logs. All times are in UTC. Double capital letters are language abbreviations (SS = Spanish, RR = Russian, AA = Arabic, etc.). If no language is mentioned then English (EE) is assumed.

ALASKA—KNLS, 7355 at 1242 with a feature, a talk on dealing with handicaps and 9655 at 1039 giving email address with an invitation to write them. (Sellers, BC)

ALBANIA—Radio Tirana, 7425 at 0127 with IS, W with ID and sked, the news and a press review. (Coady, ON)

ANGUILLA—Caribbean Beacon, 6090 at 0338 with W about the Bible, 11775 at 2143 with W and religious talks. (MacKenzie, CA) 2010 with Gene Scott preaching. (Maxant, WV)

ANGOLA—Radio Nacional, 4950 at 0200 in PP with time pips, W with ID and M/W with news and correspondent reports. (Coady, ON)

ARGENTINA—Radio Argentina al Exterior, 11710.8 at 0200 with multilingual ID loop over music to 0202, then M/W with news headlines. (Coady, ON)

ASCENSION ISLAND—BBC South Atlantic Relay, 5875 at 0345 with talks. (Parker, PA) 9915-Ascension with soccer coverage at 2245, 11810 at 2014 on democracy in Egypt, 11890 at 1927 in (l) Hausa, and 15250 at 1830 with talks in FF. (Brossell, WI) 11810 with *Newshour* at 2025 and 17795 with England vs. West Indies cricket at 1634, 17885 in FF at 2032. (MacKenzie, CA)

AUSTRALIA—Radio Australia, 9580 with vocals, 11945 at 1310 with a movie theme, and 21740 on NASCAR racing. (Maxant, WV) 9855 via UAE at 2332 ending a pop tune and casual mention of station name, 15515 at 0339 with a financial report and into national sports, 19000 at 0140 with island music and small talk, and 21740 at 0000 with *Pacific Beat* pgm. (Coady, ON) 12080 with soccer coverage at 0752. (Taylor, WI) 15515 at 0450 on Australian visitors, //15415, 17795 with M/W and comments. (MacKenzie, CA) 15240 at 0517 on European Union economics. (Parker, PA)

ABC Northern Territory Service: VL8A-Alice Springs, 4835 at 1245 on avoiding animals on the roadways; VL8K-Katherine, 2485 at 1042 with pop/rock oldies, fair and better than 1215. Also, VL8T-Tennant Creek, 2325 at 1125 with rugby p-b-p. (Sellers, BC)

HCJB, Kununurra, 15400 at 1129 with website, frequencies, then "Goodnight and God bless from HCJB Australia" and off at 1130. (Brossell, WI)

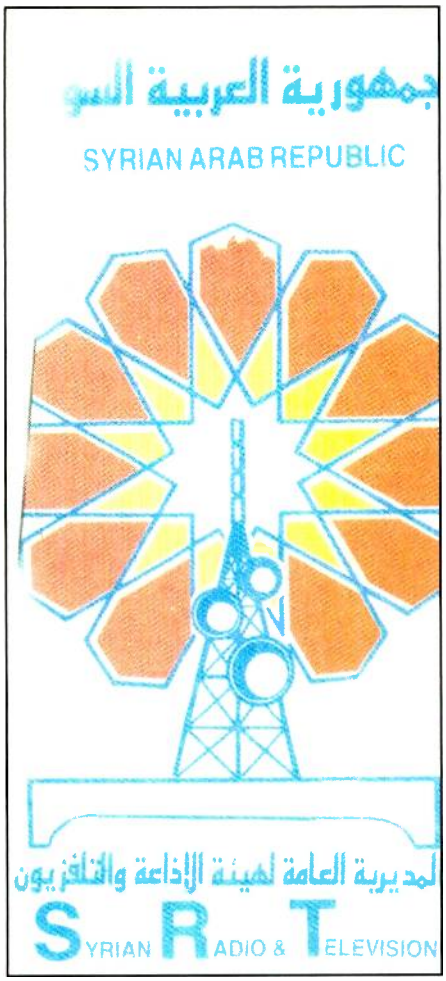
AUSTRIA—Adventist World Radio via Austria, 15250 at 1625 in (l) Urdu. (Brossell, WI)

BAHRAIN—Radio Bahrain, 9745 at 2357-0020 audible when Romania signs off at 2357 using carrier plus USB. Traditional local music and ballads. Weak, but readable, in noisy conditions. (Alexander, PA)

Help Wanted

We believe the Global Information Guide — month after month — offers more logs than any other monthly SW publication! (Over 540 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 Gerry Dexter, Global Information Guide, 213 Forest St., Lake Geneva, WI 53147 or email them to <gdex@wi.rr.com>. See the column text for formatting suggestions.

**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.*



It's probably time to keep a watch on 9330 for broadcasts from Syrian Radio Television/Radio Damascus.

BANGLADESH—Bangladesh Betar, 4750 at 1213 in (p) Bengali with M talk, a 1241 recheck had W with news in EE, then a M again in (p) Bengali at 1243. This would be their Monday only EE program at 1235-1245. (Sellers, BC)

BOLIVIA—Radio Mosoj Chaski, Cochabamba, 3310, strong at 0935-1000 with local music under distant T-storm crashes. (Wilkner, FL)

Radio San Miguel, Riberalta, 4699.4 at 0920 in SS. (Wilkner, FL)

Radio Yura, Yura, noted at 0032 and again as early as 0900. (Wilkner, FL)

Radio San Jose, San Jose de Chiquitos, 5580.2 noted in SS from 2330 recently and as early as 0900. (Wilkner, FL)

Radio Pio Doce, Siglo Viente, 5952.5 at 0052 with M in excited talk, formal ID at 0056, anmts and vocals. (D'Angelo, PA)

Radio Santa Cruz, Santa Cruz, 6134.8 at 0025 to 0208* with a wide variety of SS pops, Bolivian music, IDs and SS talk. Closing anmts at 0204 and sign off with their "Santa Cruz" song. (Alexander, PA) 0138 with a ballad, distinctive flute ensemble, more indigenous music, M host in SS. (Taylor, WI) 0123-0210* with LA vocals and M in SS hosting, nice ID string at 0126. Then a long sign off routine with ID, frequency anmts and the "Santa Cruz" song. (D'Angelo, PA)

Radio Fides, La Paz, 6155 at 0020 with SS talk and pops. Weak, but readable. Covered by India with a late 0036 sign on. (Alexander, PA)

BOTSWANA—Voice of American Relay, Mopeng Hill, 4930 at 0255 mostly weak and unreadable except for clear EE IDs and IS at TOH. (Parker, PA) 0303 with *Daybreak Africa*. (Coady, ON)

BRAZIL—(All in PP – gld)

Radio Municipal Sao Gabriel, Sao Gabriel da Cachoeira, 3375.1 at 0000-0030 and 1000-1015. (Wilkner, FL)

Radio Difusora, Londrina, 4815 at 0215 with deep-voiced anncr. (Parker, PA)

Radio Cancao Nova, Cachoeira Paulista, at 0220. Mostly buried in CODAR with traces of talk and music. (Parker, PA)

Radio Verdes Florestas, Cruzerio do Sul, (p) at 0224 with occasional traces of M talking. (Parker, PA)

Radio Difusora Roraima, Boa Vista, 4878.1 at 0030 but drifting and with poor modulation. (Wilkner, FL) 0232 with some music but it had distorted audio. (Parker, PA) 0325-0400* with Brazilian ballads and anmts, off with NA at 0347. (Alexander, PA)

Radio Clube do Para, Belem at 0237 with boisterous M anncr with phone caller. (Parker, PA)

Radio Novo Tempo, Campo Grande, 4895 at 1000-1020 with M and pops, also 0030-0040 with Brazilian music. (Wilkner, FL)

Radio Difusora, Macapa, 4915 at 0246 with M anncr and W caller, f/by a slow ballad. (Parker, PA) 0912 with Macapa ID, W vocal to 0930 when Radio Daqui signed on. (Wilkner, FL)

Radio Capixaba, Vitoria, 4925.2 at 0201, but it was very weak. (Parker, PA)

Radio Brazil Central, Goiania, 4985 at 0307 with slow ballad and a short choral piece. (Parker, PA) 11815 at 0148 with talks and songs. (Brossell, WI) 2304 with Brazilian pop vocals, several jingles with formal ID and frequency anmts. (D'Angelo, PA)

Voz Missionaria, Camboriu, 5940 at 0354 with preacher and religious music. Best in USB to avoid Gene Scott on 5935. (Parker, PA)

Super Radio Deus de Amor, Curitiba, 11765 at 0210 with an excited preacher. (Coady, ON) 0435 with talk show and phone callers. (Parker, PA) 2248 with talks. (Brossell, WI)

Radio Nacional da Amazonia, Brazilia, 11780 at 0431 with talk show with W talk and W on phone. (Parker, PA) 2251 with talks. (Brossell, WI)

Radio Inconfidencia, Belo Horizonte, 15191 with talks. Fair level, but very poor on //6010. (Alexander, PA)

CANADA—CBC Northern Quebec Service, 9625 at 0442 on black and Hispanic judges and cuts to health services. (Parker, PA) 2240 with *Laugh out Loud* pgm. (Fraser, ME)

CFRX, Toronto, 6070 at 1209 with "Newstalk 1010" ID. (Parker, PA) 1340 on bank advertising. (Maxant, WV) 2335 on the Canadian Open golf tournament. (D'Angelo, PA)

CKZN, St. John's (Newfoundland), 6160 at 0225, poor with DJ, vague talk and music. (Taylor, WI) 2310 on investments. (Brossell, WI)

CHU, Ottawa, 14670 with time checks at 0005. (Maxant, WV)

CHILE—La Voz, 9780 with SS religious talk with several IDs around 0100, some anmts and another religious talk. (D'Angelo, PA) 11665 in SS at 2340, 17680 at 2058. (MacKenzie, CA)

CHINA—China Radio International, 6190 at 0520, 9555 via Cuba in CC at 0507, 9790 via Cuba in CC at 0456, 11855 at 0427, 15445 in RR at 0456, 17495 in Cantonese at 0036, and 17740 in VV at 0437. (MacKenzie, CA) 7325-Jinhua in (I) JJ at 1207, 9865-Kunming at 2010 in CC, 9590-Kashi in SS at 2315 and 15440 in (I) Mandarin at 1123. (Brossell, WI) 9570 via Albania with *People in the Know*. (Fraser, ME) 9570 via Cuba on small business owners at 0020. (Maxant, WV) 9590-Kashi at 0048 with SS talks and pop vocals. (D'Angelo, PA)

CPBS/China National Radio: Voice of the Strait, Fuzhou, 4940 in CC at 1040. (Coady, ON) 9455 in CC at 1804 and 9690 via Spain in CC at 1814. (MacKenzie, CA)

COLOMBIA—Alcaravan Radio, Puerto Lleras, 5910 at 0404 with pgm of lively Latin vocals and M with SS ID. (D'Angelo, PA) 0348 in SS with upbeat music. (Parker, PA)

La Voz de su Concencia, Puerto Lleras, 6010 at 0815 with EE religious talk and translations into SS. (Alexander, PA)

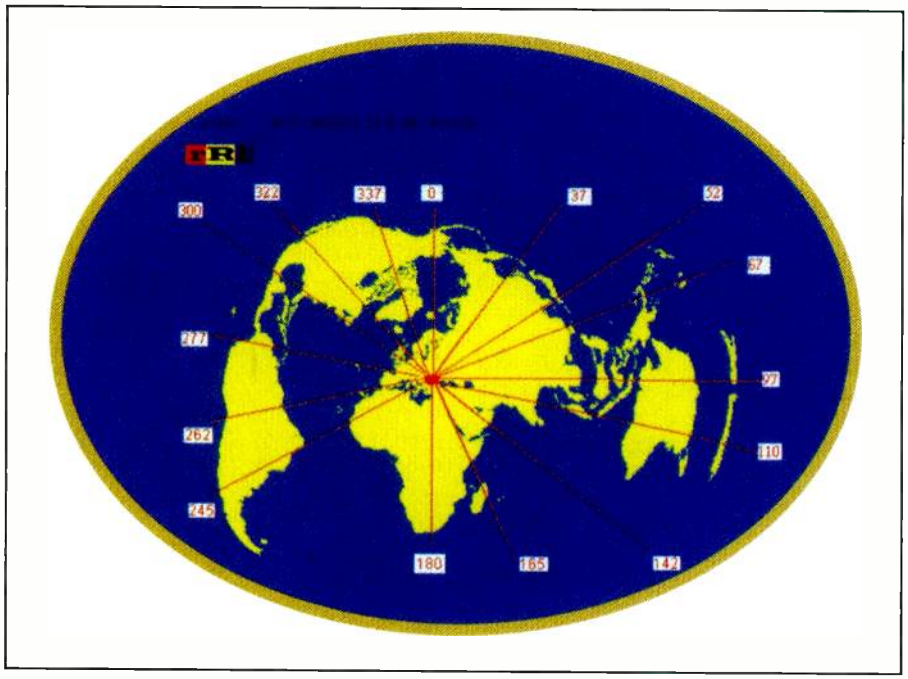
Salem Stereo, 14950.7 at 0025 in SS with ranchero-like vocals and "Esta es Salem Stereo" and ID. (Coady, ON) 2230 with SS religious music and anmts. Weak, but readable on peaks. (Alexander, PA)

CROATIA—Voice of Croatia, 3985 in Croatian with a mix of M and F vocals, //9925. (Coady, ON) 9925 via Germany at 0200 with "Glas Hrvatska" ID and "This is Croatian Radio — the Voice of Croatia" then into news. (Coady, ON) 2215 with news, sports and weather. (Fraser, ME)

CUBA—Radio Havana Cuba, 6000 in EE at 0406, 6180 in SS at 0433, 11680 in SS at 2343, 11840 in SS at 2347, 11760 in EE at 0445, 11840 in SS at 0348, //11690, 15120 in SS at 0004, 15230 in SS at 0018, 15370 in SS at 0025, 17705 in SS at 2302, and 17750 in SS at 0435. (MacKenzie, CA)

DIEGO GARCIA—AFN/AFRTS, 4319u at 0000 with a DJ playing pops. The best signal this year. (Wilkner, FL)

DJIBOUTI—Radio Djibouti, 4780 at *0258-0320 fadeout with open carrier until indigenous music, f/by AA ID, open anmts and Koran recitations. (D'Angelo, PA) 0300 with instrumental anthem, brief bit of HOA music and into Koran. (Coady, ON) *0306 abrupt sign on with Koran recitations and into AA talk. (Alexander, PA)



SWLs are beginning to wonder if we're not due to lose broadcasts from Radio Romania International one of these days. *(Courtesy of Alex Klauber, NY)*

ECUADOR—Radio Oriental, Napo (t), 4781.5 at 0000 and again at 1100 with strong carrier but poor modulation. (Wilkner, FL)

HCJB Global Voice, 6050 with W and M and long SS comments. (MacKenzie, CA)

EGYPT—Radio Cairo, 6270 in AA at 0320 with W and muffled talk and into Middle Eastern vocals. (Coady, ON) 9665 with W in AA. Usual pathetic modulation. (Taylor, WI)

ENGLAND—BBC, 5790-Skelton in AA at 0341 and 13660 Middle East Relay, Cyprus, in AA at 0424. (Parker, PA) 11750 Asia Relay-Thailand on the Libyan election at 1211. (Sellers, BC) 11810 Eastern Relay Station, Oman, on the new Libyan president at 2030. (Maxant, WV) 11820 in AA at 0427, 11830-Wooferton covering live sports at 1647, 11855 Middle East Relay, Cyprus, in Farsi at 0428, 13580 Middle East Relay, Cyprus, in Farsi at 0413, and 15180 via Germany in FF at 1825. (Brossell, WI) 17685 Asia Relay, Thailand at 0040. (MacKenzie, CA)

ERITREA—Voice of the Broad Masses (2nd Program), in AA at 0307 with M talk and HOA instls, 7180 at 0301 with vernacular talk, also 7185 at 0258 with IS, vernacular talk, HOA music. (Alexander, PA) 7205 (1st program) at 0339 in Tigrinya with HOA vocals and M with apparent current events pgm. (Coady, ON)

FRANCE—Radio France International, 11700 at 0448 in FF with talks, and 13685 in FF at 0426. (Parker, PA)

FRENCH GUIANA—Radio France International, French Guiana Relay, 21690 in FF at 2007. (MacKenzie, CA)

GABON—Africa Number One, 9580 in FF at 2141 with pgm of Aretha Franklin numbers, ID and time pips at 2158. (Coady, ON) 2247 to 2300* with a discussion pgm in FF, FF tribal vocals, ID and sign off anmts. (D'Angelo, PA)

GERMANY—Deutsche Welle, 9470 Rwanda Relay at 0453-0457* on soccer, but off in mid-program. (Parker, PA) 11800 Rwanda, 2134-2159* close. Poor here and //11830 and 11865. (D'Angelo, PA) 11865 Rwanda //11800 with news, then *Africa Link* at 2106. (Coady, ON) 12045 Rwanda in EE at 0434 and 21780 Rwanda in FF at 1838. (MacKenzie, CA)

GREECE—Radio Makedonias, 9935 in Greek at 1638. (Brossell, WI)

GUATEMALA—Radio Verdad, Chiquimula, 4055 at 0203 with a guitar instrumental. (Parker, PA) 0211 with SS preacher. (Coady, ON) 0603 with M speaker over music, organ, anmts, NA to 0610 close. (Sellers, BC) 1050 with M reading Old Testament in EE, W in SS briefly after pgm close, then another EE preacher. (Sellers, BC) 1110 with EE religion. (Wilkner, FL)

GUYANA—Voice of Guyana, 3290 at 0050-0100 with modulation "issues." (Wilkner, FL)

HAWAII—WWVH, 5000 at 1045 with solar indices and W with time anmts under WWV. (Coady, ON)

INDIA—All India Radio, 7270-Chennai at 1204 with talks in (l) Tamil and 11620-Delhi in (l) Hindi at 0145. (Brossell, WI) 9690 with EE sign on at 1330. (Sellers, BC) 11670 at 2045 announcing as the General Overseas Service, then into world news. (Maxant, WV)

INDONESIA—Voice of Indonesia, 9526 in EE at 1303 with W doing intro, ID and into news starting with headlines. (Sellers, BC)

IRAN—Islamic Republic of Iran Broadcasting, 9650-Sirjan in Turkish at 0044 over indigenous music and 12080-Zahedan (p) in AA at 0014. (Taylor, WI) 11750 on Iranian *Martyrs of the Past. (Coady, ON) 11765 in JJ at 2122 and 15410-Panaji (Goa) in (l) Thai* at 1132. (Brossell, WI) 11920 with EE Voice of Justice Service. (D'Angelo, PA) 11920-Kalamabad in EE at 0408, 13740-Ahwaz in Dari at 0430, and 13650-Sirjan in EE at 0414. (Parker, PA)

ISRAEL—Galei Zahal, 6973 at 0140 with pop pgm hosted by M in HH, brief news by W at 0200 and back to pops at 0203, //15850. (D'Angelo, PA) 2345 with EE rap and traditional local songs. (Alexander, PA)

ITALY—Italian Radio Relay Service, 9400 via Yerevan at 2154 with Brother Stair preaching to 2200 and off w/out anmt. (D'Angelo, PA) 9685 via Serbia at 0030 on elections in Serbia and Montenegro. (Maxant, WV)

JAPAN—NHK World Radio Japan, 5960 via Canada in JJ at 0416, 9835 in JJ at 1815, 11935 via Bonaire in JJ at 0342, 15265 in JJ at 2240, 15650 in JJ at 2358, and 17810 in JJ at 0430. (Mackenzie, CA) 6120 via Canada with *Tokyo Calling at* 1225. (Maxant, WV) 17735 via France in JJ at 1547. (Brossell, WI)

KUWAIT—Radio Kuwait, 15540 in EE at 1935 with *This Day in Western History*. (Fraser, ME) 2005 with rap. (Maxant, WV) 17550 in AA at 1848. (MacKenzie, CA)

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 or other prize. 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 prize winner is **Mark Taylor**, Milwaukee, WI who gets a copy of Steve Handler's *The Utility DX'ers QSL Address Book*, which I review this month on page 70. Mark edits the free weekly *Flashsheet* of the North American Shortwave Association (www.naswa.net) that keeps you up to date on what's being received on the bands lately.

Here's another QSL card from KNLS in Alaska.

LAOS—Lao National Radio, 6130 (p) with Asian music at 1258, M talk, 5 tones and another speaker, all very poor. (Sellers, BC)

MADAGASCAR—Radio Madagasikara, 5010 at 0300 with Malagasy talk and some African choral music. (Alexander, PA) 0332 with excited W interviewing M. (Coady, ON) 2223 with talks in (p) Malagasy. (Brossell, WI)

MALAYSIA—Voice of Malaysia, 9835 at 1313 in Bhasa Malay with M DJ and pop song, several M/W Voice of Malaysia IDs. (Sellers, BC)

Sarawak FM, 9835 at 1105 in Bhasa Malay with news and songs, ID as "Sarawak FM" at 1118. (Sellers, BC)

Asyik FM, 6050 at 1305 in Bhasa Malay with W DJ and pop songs, phone calls. (Sellers, BC)

MALI—RTV Malienne, 5995 at 2340-0001* with local tribal music, Afropops, FF anmts, off with NA at 0000. Also opening at *0559-0610 with flute IS and vernacular talk at 0601. (Alexander, PA)

MAURITANIA—Radio Mauritanie, Nouakchott, at 0655 with M in AA talk, brief recitations, another ID at 0700 f/by a short vocal, another ID and news. (D'Angelo, PA)

MEXICO—Radio Educacion, Mexico City, 6185 in SS with vocals at 0010. (Maxant, WV) 0216 with M ancr and male ballads. (Taylor, WI)

MICRONESIA—The Cross Radio, Pohnpei, 4755.5 at 9945. (Wilkner, FL)

MOLDOVA—Radio PMR, 9665 at 2036 with news of Pridnestrovie and into a pgm of music at 0245. (Coady, ON)

MOROCCO—RTV Marocaine, 15350 with talks in AA at 1628. (Brossell, WI)

Radio Medi Un, 9575 with M AA vocals at 2345. (Coady, ON)

MYANMAR—Radio Myanmar, 5985.8 with indigenous vocals. Recheck at 1302 with M talk in an Asian language. Muffled, weak and very poor. (Sellers, BC)

Thazin Broadcasting Station, Naypyitaw, 7110 in (I) Burmese at 1200. (Brossell, WI) 1215 in Burmese with talks and several songs. (Sellers, BC)

NETHERLANDS—Radio Nederland, 11655 Madagascar Relay at 1930 with news. (Brossell, WI) 17605 via Vatican at 1853 on employment in Africa. (Brossell, WI)

NEW ZEALAND—Radio New Zealand International, 9655 at 1250 with weather on the South Island. (Maxant, WV) 11725 at 0510 on police issues. (Parker, PA) 15720 at 2210. (Mackenzie, CA) 0318 with *Dateline Pacific*. (Coady, ON)

NIGER—La Voix du Sahel, 9705 at 2035 in FF with sub-Saharan vocals and instls, apparent news in AA at 2056. (Coady, ON) 2101-2301*. It's audible after Ethiopia signs off at 2101. (Alexander, PA)

NIGERIA—Voice of Nigeria, 9690 at *0759 sign on with local instruments and talk in (I) Hausa, 15120 at 0452 with opening alternating IS on indigenous instruments and M with ID. (Parker, PA) *0503 sign on with EE talk, some local Afropops. (Alexander, PA)

NORTH KOREA—Voice of Korea, 6070 at 1102 with sign on in JJ with NA, anmt and choir with patriotic song. (Sellers, BC) 7220 at 1200 with anthem and talks in KK, 11680 with impassioned talk in KK at 2246. (Brossell, WI) 11710-Kujang in EE at 1300 sign on and into patriotic music. (Fraser, ME) 15180 in SS at 0509. (MacKenzie, CA)

OPPOSITION—Voice of Peace and Democracy (to Eritrea), 9558.6 at 0358 sign on with HOA music and opening ID anmts and vernacular talk. (Alexander, PA)

Radio Okapi (to D.R. Congo), 11690 at 0449 in (I) Lingala with fast-paced talks by two W. (Parker, PA)

In Times Past

Here's your "blast from the past" for this month: Radio Riga, Riga, Latvia, in RR with a domestic service at 0018 on September 24, 1966.

Sound of Hope (to China), 11765 via Taiwan in CC at 1642. (Brossell, WI)

Voice of Biafra London (to Nigeria), 11870 on with local music at 2000 to 2100*. Mostly in vernacular, but some of it EE. (Alexander, PA)

Radio Free Sarawak, 15420 at 1059 to 1200* with ID at 1100 with vernacular talk, some instl music bridges. (Alexander, PA)

Voice of South Sudan Revolutionary Radio, 15725 at 0501 sign on with African tribal music, EE ID at 0505 and into AA. (Alexander, PA)

Radio Voice of the People (to Zimbabwe), 9870 at *0400-0458* with local African music, opening anmts and vernacular talk. EE segment at 0444 but was difficult to follow due to the accents. (Alexander, PA)

PALAU—World Harvest Radio, with W in *Living the Bible*. (Sellers, BC)

PAPUA NEW GUINEA—NBC Sanduan (New Guinea), 3205 at 0930 usually strong recently. (Wilkner, FL) 1204 with EE news and plug for NBC as the "official broadcaster of the national elections" (Sellers, BC)

NBC Madang (New Guinea), 3260 at 1020. (Wilkner, FL) Tok Pisin at 1217 with some kind of anmts. (Sellers, BC)

Radio Southern Highlands (Papua Territory), NBC Southern Highlands, 3275 at 1204 with EE news, 1213 ancr asking questions in EE to phone callers. (Sellers, BC)

NBC Manaus (Admiralty Islands), 3315 at 1227 in Tok Pisin with two M in discussion. (Sellers BC)

NBC Buka (Bougainville), 3325 at 1211 with interview in Tok Pisin. (Sellers, BC)

NBC Northern (Papua), 3345 at 1201 in Tok Pisin, EE news from NBC then music. (Sellers, BC)

NBC Milne Bay (Papua), at 1202 with EE on PNG elections. (Sellers, BC)

NBC Kavieng (New Ireland), 3905 in Tok Pisin with western pops and some island music. NBC EE news at 1111 check. (Sellers, BC)

NBC Port Moresby, 6040 at 1141 with EE election coverage. (Sellers, BC)

Radio Fly (New Guinea), 3915 at 1104 with w ancr and pops, possible EE ad or promo. Poor with lots of ARO QRM. (Sellers, BC)

PERU—Ondas del Huallaga, Huanuco, 3330 in SS at 1020. (Wilkner, FL)

La Voz de la Selva, Iquitos, 4824.5 at 1100. Signs on as early as 0930. (Wilkner, FL)

Radio Sicuani, Sicuani, Cusco, 4826.5 at 0850. This seems to be one of the earliest Peruvians. (Wilkner, FL)

Radio San Antonio, Atalaya, 4940 at 1035 with anmts, brief music bridges, but fades by 1100. (Wilkner, FL)

Radio Manantial, Huancayo, 4986.3 at 0050 has recently returned. (Wilkner, FL)

Radio Bethel, Arequipa, 5921.2 at 0032 in SS with music. (Wilkner, FL)

PIRATES—Captain Morgan Shortwave, 6925 at 0100 with blues. Email as <captainmorganshortwave@gmail.com>. (Hassig, IL) 0214 with segments of oldies rock with ID and email address. (D'Angelo, PA) 0338 with oldies with repeated IDs and more oldies. (Coady, ON)

Radio Ronin Shortwave, 6927.7 at 2336 with Yankee Doodle IS, much talk of early colonies, patriotic songs, a Sousa march, versions of the National Anthem, Battle Hymn, etc. <radioroninshortwave@gmail.com>. (Hassig, IL)

TCS Relay Service, 6925u at 0315 with rock, message from Commander Bunny and fog horn sounds at 0329. <tcsshortwave@gmail.com>. (Coady, ON)

Rave on Radio, 6925u at 0200 with Johnny Cash tunes. <raveonradio@gamil.com>. (Hassig, IL)

Radio Free Mars, 0145-0213* with talk about Mars, odd music. Weak in noise. (Alexander, PA)

WMPR, 6925 at 0135 with strange electronic music and IDs. (Alexander, PA)

Wolverine Radio, 6950u at 0250 with rock vocals and M with ID at 0303 and 0324. (D'Angelo, PA) 0300 with pop/rock and IDs. (Alexander, PA)

Radio Whatever, 0030 with electronic dance music, ads for an Internet radio station. (Alexander, PA)

XFM, 6955 at 0220 with talk, ID, and pop/rock, shoutouts. Poor in noise. (Alexander, PA)

Radio True North, 6924.7 at 0533 with ID, rock, email and a mention of the Merlin P.O. address. (Sellers, BC)

Black Bandit Radio (Euro), 6324.8 at 0000 with pops and country, some polka style, IDs at 0021 and 0036. Sign off about 0031. (Alexander, PA)

PHILIPPINES—Far East Broadcasting Co., 9855 at 1053 with IS and repeated EE ID "This is FEBC Radio broadcasting from Manila, Philippines." RHC sign on killed the opening, which would have been in VV. (Sellers, BC) 9920 at 1241 with just traces of W talking. (Parker, PA)

POLAND—Polish Radio, 11960 via England in RR at 1731. (Parker, PA)

ROMANIA—Radio Romania International, 7310 in EE at 0447 on malaria in Asian children. (MacKenzie, CA) 11795-Tiganesti at 2338 with Romanian folk music and M ancr in SS. Closed at 2357. (D'Angelo, PA) 13800-Galbeni at 1734 in Romanian with pops and a number by Marlene Dietrich. (Parker, PA) 2030 with world news. (Maxant, WV) 2045 on touring Bucharest on a bicycle. (Fraser, ME) 2052 on a contest sponsored by the Hotel Royale in Bucharest, then into closing anmts at 2056. (Coady, ON) 15135 at 1354 in (l) Romanian and 15310 at 1838 with the same. (Brossell WI)

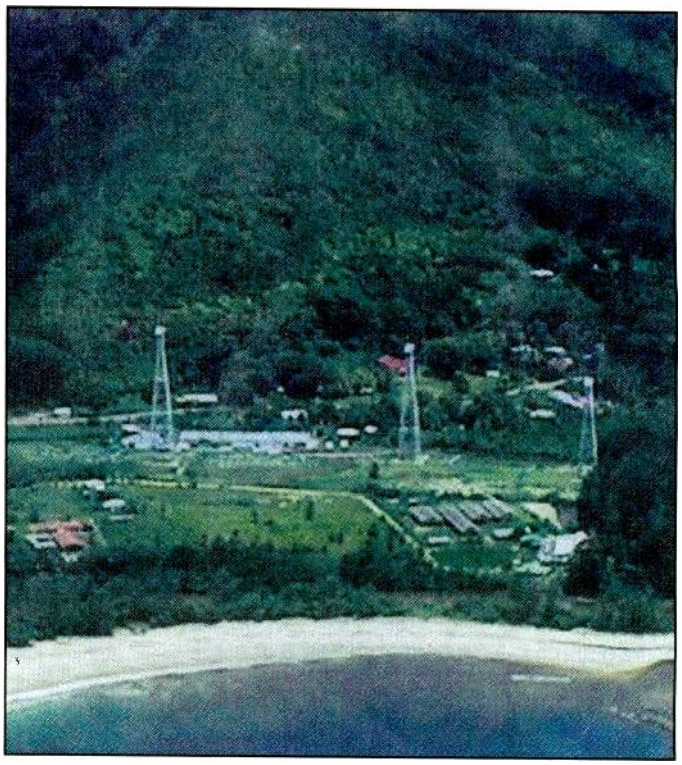
RUSSIA—Voice of Russia, 9665 (via Moldova), at 0035 on Lenin being reburied. (Maxant, WV) 9745 in FF at 2005. (Brossell, WI) 11840-Petropavlovsk-Kamchatsky (As. Russia) with *Outlook* after EE news at 1400. (Sellers, BC) 12035 in RR at 0338. (Mackenzie, CA) 12040 at 1932 with *Voice of Russia Jazz Show* at 1930. (Coady, ON) 13775-Vladivostok at 0434 with two W on finances and living conditions there. (Parker, PA)

Radio Tartarstan, via Samara at 0443 in Tartar with excellent operatic-type folk music and M/W discussing. (Parker, PA)

SAO TOME—Voice of America Relay, Pinheira, 9590 at 2127 in FF with IS, ID, and close at 2130. (Coady, ON)

SAUDI ARABIA—Broadcasting Service of the Kingdom, 15170 in AA at 0329. (MacKenzie, CA) 0507 in AA with talks and Koran recitations. (Parker, PA) 15435 at 1550 with AA talks. (Brossell, WI)

SEYCHELLES—BBC Indian Ocean Relay, Mahe, 9410 at 2100 with world news. (Coady, ON) 9730, (Brossell, WI) 11945 at 0403 on collapse of millions of honeybee colonies around the world. (Parker, PA)



Here's a view off the BBC Indian Ocean Relay Station at Mahe, Seychelles, beaming to East and North Africa. *(Courtesy of Rich D'Angelo)*

SOLOMON ISLANDS—Solomon Islands Broadcasting Corp., 5020 at 1143 with EE interview, music bridges, and anmts in Tok Pisin, pgm lineup and, Bible reading in EE. (Sellers, BC)

SOUTH AFRICA—Radio Sonder Grense, 3320 in Afrikaans at 0225 with local pops. (Coady, ON) 0334 with instls and man in presumed Afrikaans. (Brossell, WI)

SOUTH KOREA—KBS World Radio, 9650 via Canada with *Letterbox* at 1235. (Maxant, WV) 15360 via Wertachtal at 1842 with talks in RR. (Brossell, WI)

SPAIN—Radio Exterior de Espana, 3350 Costa Rica Relay in SS at 0258 and 6055 in EE with listeners letters at 0033. (Coady, ON) 6055 with the same at 0205. (Maxant, WV) 6125 at 2233 on Human Rights Watch. (Brossell, WI) 3350-Costa Rica in SS at 0353, 6055 in SS at 0422, 9630 in SS at 0459, 11680 in SS at 2323, 15110 in SS at 2056, and 17850-Costa Rica in SS at 2147. (MacKenzie, CA)

SRI LANKA—Sri Lanka Broadcasting Corp., Ekala (p) 11905 at 0126 with M in Hindi f/by Hindi vocals with flutes and more talk. (D'Angelo, PA)

SUDAN—Sudan Radio TV, 7200 in AA at 0308 with talk and later an apparent interview. (Coady, ON)

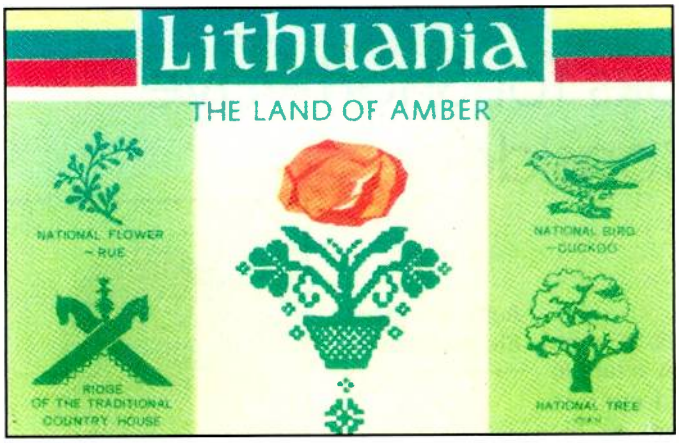
SURINAME—Radio Apinte, Paramaribo, 4990 at 0930 but a bit under modulated, (Wilkner, FL)

SWAZILAND—Trans World Radio, 9500 at 0542 with M preacher at 0542, W over background music giving contact info. (Sellers, BC)

TAIWAN—Radio Taiwan International, 5950 via Florida in CC at 0427 and 17725 in SS at 2302. (MacKenzie, CA) 9465 at 1107 with news, stocks and weather. (Sellers, BC)

TANZANIA—Radio Tanzania-Zanzibar, 11735 at 2030-2121* with a wide variety of African hilife, Hindi-style music, Middle Eastern pieces, Swahili talk. Several IDs as "ZBC" and "Spice FM" with African pops after 2100. Abrupt and late sign off at 2121. (Alexander, PA) 2030 in Swahili with local vocals with occasional talk to 2056 and off w/out anmts. (Coady, ON)

THAILAND—Radio Thailand, 9890 at 1239 with M/W doing news, ad for Bangkok Airways and ID. (Sellers, BC) 0017-0029* poor



Sitkuani is seeing more usage as a relay site in Lithuania. Poor, messed up Europe hasn't many such sites left.

with M/W alternating news, nice PSAs and IDs. Carrier was cut during the interview. (D'Angelo, PA)

TURKEY—Voice of Turkey, 9830 at 2234 with local folk and pop vocals, multilingual IDs at 2245 and M with ID and news headlines at 2248. (Coady, ON)

UNITED STATES—Voice of America, 11905 via Madagascar at 0413 in (l) Kinyarwanda with talks and Afropops. (Parker, PA) 17765-Philippine Relay in CC at 0048. (MacKenzie, CA)

Radio Free Asia, (p) 9400 via Sitkunani (Lithuania) in (l) Uyghur at 0111. (Taylor, WI) 9540-Northern Marianas Relay in CC at 1810 and apparent jamming in background, 11540 via Tajikistan in CC at 1825, 15585 Northern Marianas in CC at 2320. (MacKenzie, CA) 11540-Northern Marianas in CC at 1525 and 11590 Kuwait Relay in (l) Tibetan at 1305. (Brossell, WI)

Radio Liberty (RFE/RL), 9760-Biblis Relay in Tajik at 0134. (Taylor, WI)

Radio Farda, 9965-Sri Lanka Relay in Farsi at 2010. (Brossell, WI)

Radio Marti, 11930-Greenville in SS at 2336, //7365. (MacKenzie, CA)

Sudan Radio Service, 11800 via UAE in AA at 0427-0431. (Parker, PA)

AFN/AFRTS, 5765u at 1317 with sports news. (Sellers, BC)

Trans World Radio (p), KTWR, 9910 in CC at 1135. (Brossell, WI) 12025 via Tashkent in unid language from *0030 with instl music and many talks. (D'Angelo, PA)

Adventist World Radio, 3215 via Madagascar in Malagasy at 0346. (MacKenzie, CA) 15270 via Germany in (l) Hindi at 1540. (Brossell, WI) 15225 via Germany in AA at 0516. (Parker, PA)

Family Radio, 6220 via Taiwan in Burmese (per sked) with ID, M talk, hymn. Also 6240 via Taiwan in Mandarin with hymns at 1144. (Sellers, BC) 11975 via Germany in (l) Somali at 1710. (Brossell, WI)

WHRI, South Carolina, 7315 with preaching at 0045. (Maxant, WV) 11775 at 2246. Was not either of the Scotts. Returned at 0727 and noted a promo for World Vision, ID, and contemporary Christian music. (Taylor, WI)

WRNO, Louisiana, 7505 at 0219 with preacher. (Taylor, WI) with long religious talk ending at 0222, then dead air between programs. (D'Angelo, PA)

WWCR, Tennessee, 4840 at 0403, 5890 at 0420, 5935 at 0424, 12160 at 1838, 13845 at 2338, and 15825 at 2042. (MacKenzie, CA)

WEWN, Alabama, 5810 in SS at 0415. (MacKenzie, CA) 15610 with Mother Angelica call-in pgm. (Maxant, WV) 2045. (MacKenzie, CA)

WINB, Pennsylvania, 13570 with preaching at 1842. (MacKenzie, CA)

WTWN, Tennessee, 5755 at 0412 with religious talk. (MacKenzie, CA)

WWTW, Tennessee, 9480 with *The Wrangler* pgm. (Maxant, WV)

WRMI, Florida, 7385 at 0318. (MacKenzie, CA) 9955 at 0340 on Radio New Zealand's archive recordings. (Parker, PA) 1520 with a DX pgm. (Maxant, WV)

WWRB, Tennessee, 5050 with a southern preacher at 0212. (Parker, PA)

VANUATU—Radio Vanuatu, 3945 at 1151 with island pops, W in (p) Bislama language, f/by M in what may have been a Bible devotional. (Sellers, BC)

VATICAN—Vatican Radio, 9610 via Canada at 0242 with FF pgm closing at 0249 f/by EE/SS. (D'Angelo, PA) 11625 at 2000 with "This is the Africa Service of Vatican Radio" f/by *African Panorama.* (Coady, ON) 2020 on Paul the Apostle. (Maxant, WV) 11715 at 0445 in AA. (Parker, PA)

VIETNAM—Voice of Vietnam, 6175 via Canada in SS at 0426. Off suddenly at 0429. (MacKenzie, CA) 9555 via Canada in VV at 0452. (Parker, PA) 12020-Son Tay in EE at 1236, //9840. (Sellers, BC)

ZAMBIA—Zambia National Broadcasting, 5915 at 0245 with Fish Eagle IS, choral anthem and vernacular talk, some local Afropops. (Alexander, PA) 0255 with African hilife music. And knocked out by the Voice of Turkey IS at 0257. (Coady, ON)

And that'll do it for this month, except to pass along my grateful thanks and offers of high fives to all who checked in and passed on their results. Namely: Robert Fraser, Belfast, ME; Robert Wilkner, Pompano Beach, FL; Harold Sellers, Vernon, BC; Stewart MacKenzie, Huntington Beach, CA; Charles Maxant, Hinton, WV; Rich D'Angelo, Wyomissing, PA; Mark Taylor, Madison, WI; Brian Alexander, Mechanicsburg, PA; William Hassig, Mt. Pleasant, IL; Robert Brossell, Pewaukee, WI; and Richard Parker, Pennsburg, PA. A hefty load of thanks to each of you. And until next month, good listening.

Two New Books for Shortwave Listeners to Consider

Reviewed by
Gerry L. Dexter,
WPC9GLD

IN REVIEW:
Just the Fax and The Utility DX'er's QSL Address Handbook. Each written by Steven Handler.

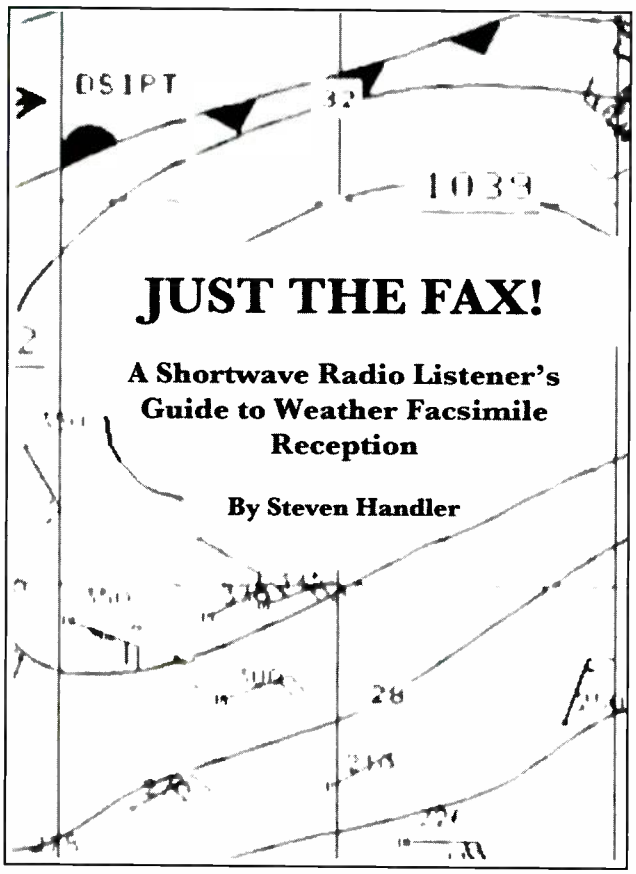
Let me begin with a disclaimer:

I have long known Steve Handler to be an experienced DXer and I welcome his return to the hobby after such a long hiatus. I met him many years ago. Steve now serves as the International Bands Logging editor for the North American Shortwave Association <http://www.naswa.net>.

Also, for 20 years I owned and operated Tiare Publications, which published books for the radio hobbyist, including some titles which touched on the same subjects that Handler deals with here. So, with that out of the way . . .

Just the Fax! – A Shortwave Listener's Guide to Weather Facsimile Reception

This 37-page introduction to receiving weather reports via radio facsimile, or WEFAX, includes an extensive list of frequencies for radio facsimile transmissions listed by transmission times covering a 24-hour period as well as a good selection of station addresses you could use to send your reception reports.



Author/publisher Steven Handler

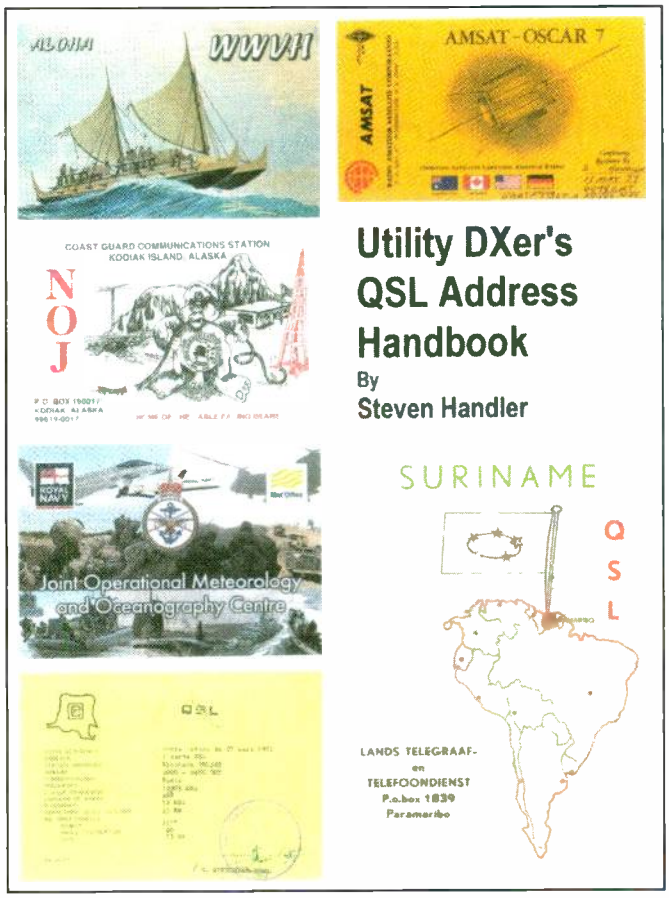
Unfortunately, *Just the Fax!* neglects to include much information on what kind of equipment is needed to produce hard copies of the charts and graphs and satellite images, beyond hearing just the tones and other noise being transmitted.

I guess any computer — whether Mac or a PC — will do the trick. The key element is the software program you use to make sense of a transmission. Handler does include some websites which you can use to further investigate such software, although he recommends no particular program or gives the reader much guidance in that direction.

It might have been better to include several names and descriptions of the various software programs available, along with their matching websites, which would have made for more of a "for dummies" type of approach for people like me who'd otherwise have no clue as to what they were doing.

Bottom line: the book includes a good list of such facsimile transmissions (100 or more) but I find it a bit weak in the "how to do it" department. And, for someone like me, who lacks even the mechanical ability to open a can of beer, that's a problem! On the other hand, if you are adept at such things you'll find *Just the Fax!* an interesting — even useful addition to your radio reference library.

"Just the Fax! – A Shortwave Listener's Guide to Weather Facsimile Reception" sells for $14.95 plus $1.90 s/h to U.S. addresses or $3.86 s/h to the rest of the world from: Steven Handler, P.O. Box 11, Lincolnshire, IL 60069-0011. Shipped via USPS. You can also make payment via PayPal to <shortwavereport@yahoo.com>.



The Utility DX'ers QSL Address Handbook

My brief, personal experience with utility listening dates back to the days when an SWL's tour of the bands would frequently hear things such as: "This is a test for circuit adjustment purposes from a station of the American Telephone and Telegraph Company. This station is located in Schenectady, New York." And the tape loop would be repeated over and over again to the end of the transmission. Even a 14-year-old kid could QSL that — all you needed was paper, pen and a stamp.

The Utility DX'ers QSL Address Handbook offers 56 pages of addresses — both postal and email — for utility stations worldwide. Besides that, it provides other info which includes the type of QSL the station issues, the preferred method you should use to contact the station, the names of known station officials (if any) and some general notes.

You're covered all the way from Alaska to Uzbekistan and Vietnam (sometimes postal mail addresses are not included, but email addresses are). There must be 500 or more addresses in here; I gave up trying to count them well ahead of that figure.

The listing includes standard time and frequency stations to which both SWBC and UTE DXers lay rather legitimate claim. There is a brief explanation of the few abbreviations that are used in the listing.

The book's covers — front and back, inside and out — feature quite colorful reproductions of utility station QSLs — including the likes of WWVH, Aeronautical Radio (ARINC), U.S. Coast Guard Stations NMN and NOJ, various VOLMET stations and numerous others. In all, a very colorful collection — which almost makes me want to get going, though I don't know what kind of QSL reply percentage UTE DXers enjoy these days compared to those who pursue SWBC replies. But, the book should certainly help increase the activity in your mailbox. Not to mention keeping your mailman busy! You can check out both books on Steve's website at <http://www.shortwavereport.com>.

"The Utility DX'ers QSL Address Handbook" by Steven Handler sells for $14.95. Shipping and ordering information is the same as for the Just the Fax book. Both the QSL and Fax books are also available from Universal Radio. Check out <http://www.universal-radio.com>. Both books are 7 1/2- x 11-in size, with large type, printed on top quality paper so that the color illustrations stand out nicely.

Worthy Introductions, Worth a Try

Handler says he plans to release four such books this year. These first two focus on utility DXing, and the next pair will deal with shortwave broadcast. Now you're really talking my language!

The Utility DX'ers QSL Address Handbook and *Just the Fax!* are a worthy introduction to both subjects. If you have any interest in these aspects of DX, I'd suggest you give both of them a try.

ACROSS THE SPECTRUM *(from page 23)*

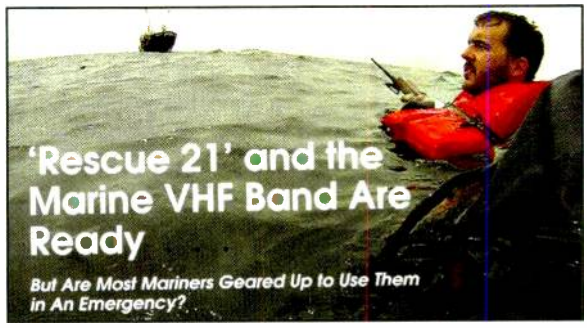


Photo A. Stories by John Majewski and Gordon West, WB6NOA/WPC6NOA, about Rescue 21 and a near disaster off the coast of Martha's Vineyard, Massachusetts, struck a cord with July *Pop'Comm* readers. *(Courtesy of Pop'Comm)*

A Player in July *Pop'Comm's* 'Atlantic Radio Drama'

Editor, *Pop'Comm*,

I read with interest John Majewski's and Gordon West, WB6NOA/WPC6NOA's stories in July's *Pop'Comm*. *(**NOTE:** "Atlantic Radio Drama: A Miracle and a Handheld Transceiver Save a Trio Lost @ Sea," Page 20, and "Rescue 21 and the Marine VHF Band Are Ready," Page 12. – KPC6PC)*

I, too, am a member of the USCG Auxiliary on the island of Martha's Vineyard. I am the communications watchstander at station Menemsha on weekends.

I will never forget my first day of training with the Coast Guard, August 1, 2011 when we got a Search and Rescue call of three people in the water in our Area of Responsibility. **Photo A**. Rescue 21 did its job and came out with the latitude and longitude — which I ended up plotting on the chart. This was the *"Atlantic Radio Drama"* covered in *Pop'Comm*.

– Ron Walsh, W1FML,
ADSO-PV Sector, New England,
Martha's Vineyard, Massachusetts

Opening A New Decade of Writing Around Broadcasting's Personal Past

by Shannon Huniwell, WPC2HUN
<melodyfm@yahoo.com>

"Your father and I wanted to bring you a little something to mark your tenth anniversary of writing for Popular Communications, Honey. . ."

"How in the @#%*! did you lose a chocolate sheet cake with radio antennas on it?" the bakery owner screamed at his hapless employee. That hyper-peeved proprietor then asked my folks to excuse his *French* and contritely offered them several substitute confections including the oblique treat they presented to me shortly after their arrival at my house several hours later.

"Your father and I wanted to bring you a little something to mark your tenth anniversary of writing for *Popular Communications*, Honey," my mother began explaining.

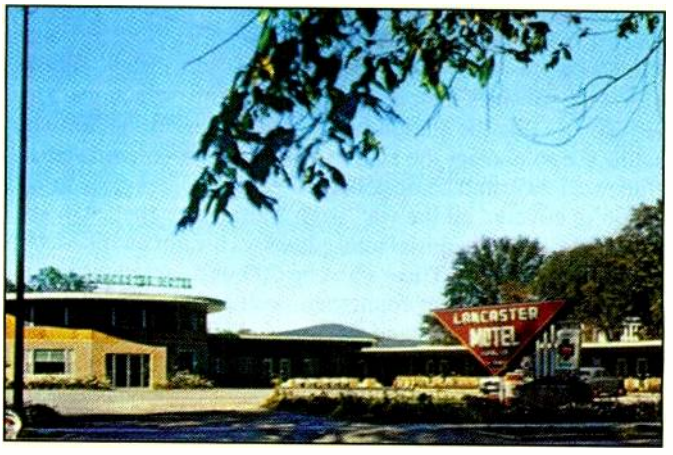
"But somehow the cake we ordered from Truffle's Bakery got misplaced, and we had a long ride ahead of us so we couldn't really wait for them to make us another one."

After Dad described the cute little three-tower array novelty cake topper that he'd commissioned the baker to create out of pretzel sticks (each with a tiny candle beacon) that figuratively broadcast sweet sounds from a similarly scaled studio/transmitter shack built from pink frosted graham crackers, I was extremely grateful for my parents' thoughtfulness, but incredibly disappointed that the cake — reportedly decorated with kilocycle kudos marking "10 Years of AM-FM-TV Memories!" — would neither be available for mating with some vanilla ice cream nor present for a digital photo and caption in an upcoming *Broadcast Classics* column.

As the sun set on that mid-September Saturday, however, there were no other regrets. We all got a laugh at the surrogate cake's inscription — "IT'S A BOY!" — a kooky segue into reflective conversation on how my opportunity to join the *Pop'Comm* team was born. Of course, Dad took initial credit for conceiving the idea that I take over the magazine's radio/television history section then recently was made vacant due to *Popular Communications* columnist, Alice Brannigan's retirement.

When I was offered the slot in June 2002, the era's well-liked editor, Harold Ort, admitted that my father had, in fact, done "a bit of pestering" to get Harold and the other *Pop'Comm* brass to sample some of my work.

"He happened to run into me at least six or seven times at a hamfest and kept dropping hints about how his talented, perky, red-headed daughter could weave her knowledge of broadcasting



See that center second floor window above the Lancaster Motel's rotund lobby? I'm *pretty* that it looks into the room where WLGW's studio existed. Then again, maybe the short-lived AM was housed in another motor lodge in the picturesque New Hampshire community, as I don't remember the motel room arrangement — where I stayed during several nights after serving as guest air-personality — being in an "L" shape. This establishment's postcard copy reads, "Lancaster Motel on US Routes 2 and 3. 35 modern comfortable units in the center of a lovely New England town. Exceptionally large lobby for guests to enjoy." If I were scouting out studio space for a small market station, I would hit the brakes seconds after spotting such a place. My WLGW memories do include the heady enjoyment of looking out of the window while on the air chatting about some song I'd just played and saying "I hope you liked that song as much as I liked spinning it for you." At that moment, a couple got out of an old convertible that had just pulled into the motel parking lot, looked upwards towards the studio window, and gave me thumbs up!

history into a prosaic style that would be sure to delight our readers," Harold recalled with an eye-rolling smile.

"Your father says you inherited his love of broadcasting and that he's taken you on tons of station tour expeditions over the years."

Though I'm not sure if it's supposed to be a secret in these pages, I can divulge that my "day job" is that of ghostwriter for a New York publishing house that specializes in romance novels.

Apparently, when Mr. Ort finally agreed to take a look at my wordsmithing, Dad handed him a plastic shopping bag laden with my paperbacks — a desperate tactic, in that each of those half-dozen pulpy tomes I'd penned had nothing to do with electronic interplay and wore by-lines of pseudonym authors.

A few weeks after that lobbying effort, Harold emailed me a request for a more *radioesque* authorship example. At my father's incessant insistence, I acquiesced by whipping-up a breezy account of my teenage tenure as a cub DJ at a peanut-whistle station — WLGW 1490 Lancaster, New Hampshire.

WLGW's existence came and went faster than a sunny day off, resulting in a sample article of only about 200 words. Albeit brief, the piece — plus an impromptu phone interview during which Harold politely exaggerated his amazement at my recollection of call letters, dial positions, and related radio station trivia — sealed the deal that generated my inaugural *Shannon's Broadcast Classics* column 10 Octobers ago last month.

An *On-Air* And *In-Motel* Solo . . . Some Time or Another

That skimpy audition account of my flash-in-the-pan northern New England radio debut on the modest single-kilowatt AM stage never saw more than a couple of short paragraphs in our favorite magazine.

At that juncture in my life, the prospect of helming a monthly column seemed far-fetched.

I'd apparently typed the sample article the old-fashioned *Smith-Corona* way and sent Harold the hardcopy but never thought to save a duplicate — if I had even made one at all.

The editor managed to misplace his, too. So, several weeks later, when composing my actual introductory monthly *Pop'Comm* manuscript, I quickly glossed over the New Hampshire experience and devoted most of a mini-biography — that Harold suggested be included in my greeting to the readers — to explaining how I got interested in things AM/FM/TV.

Like WLGW's precarious lifespan, once my ephemeral career there concluded, what should have remained as radiant detail of the place went dark or oddly fuzzy, at best.

In the midst of that aforementioned congratulatory dessert, Mom began to read aloud from the inaugural October 2002 column. When she reached the biographical aside about me getting an ad hoc announcer job at WLGW while "at the tail end of a mid-1980s summer vacation" visiting my grandparents in New Hampshire, Dad flipped open a 1985 and then a 1986 *Broadcasting Yearbook*, neither of which contained the slightest mention of any radio station in Lancaster, NH.

It was finally the 1987 edition that revealed WLGW as having hit the air on October 1 of that year. The math for the nascent station's premier, my 1987 high school graduation, and my recollection of having been on the air at WLGW sometime during late August through Labor Day, just didn't add up. I *thought* I clearly remembered spinning the easy-listening/oldies hits there while still of high school age.

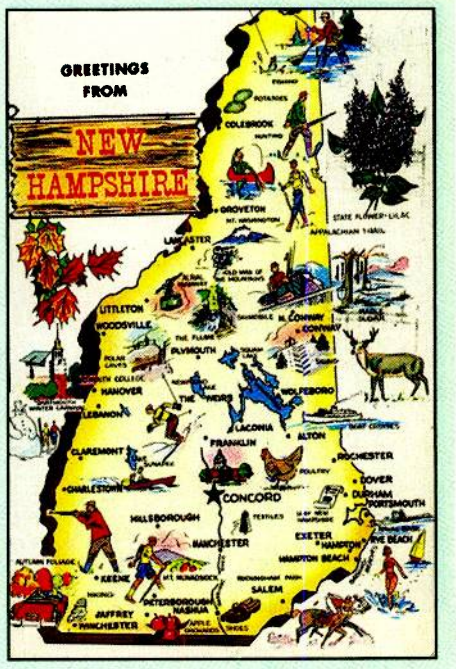
But if the *Broadcasting Yearbook* is correct, I couldn't have done so until the following summer (1988) when I was home from my freshman year of college. And equally puzzling is the fact that my folks, who usually make a sport out of lovingly debating useless issues the likes of whether the Connecticut River is better than the Hudson, both amicably picture me as having been about 17 at the time of the WLGW experience.

But, according to the yearbook, that's not possible. The whole episode shakes my confidence in recollected facts that have never been written down — especially if they've been central to some family lore recounted with increasing gusto.

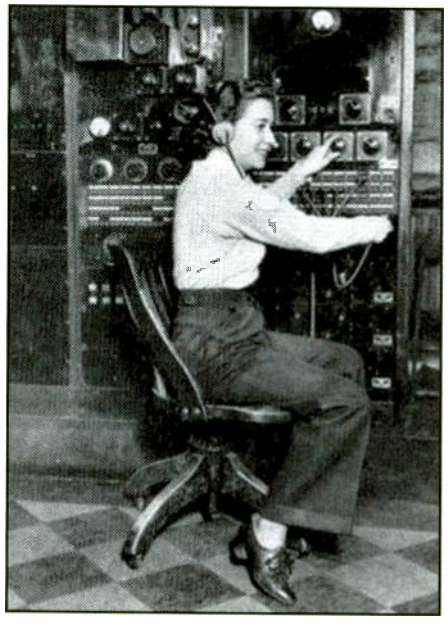
Such is the case with my father heralding me, for as long as I can remember, as some sort of teenage radio station prodigy for "braving the microphone on the new local station in Grammie's and Grandaddy's historic little town." The only details of which I'm reasonably sure include WLGW's second story studio locale in a 1950s era motel with a commanding view of the parking lot and natural surroundings.

The equipment was both basic and vintage. I seem to remember some consumer-grade cassette machines dedicated for public service announcements and commercials. There were no tape cart machines in the place. Honestly, I cannot picture the control board, though I know that one must have been positioned in the midst of the other studio gear.

Now, images of the rest of WLGW's inventory, such as the microphone and



During the 1950s, every state in the US probably has had an euphemistically quaint postcard such as this Eisenhower-era New Hampshire version composed by some happy illustrator with an eye for vacationers and their avocations. Entrepreneurs proposing radio outlets in bucolic towns typically figure the sightseers and related tourist commerce into their business plans. More often than not, however, folks just visiting don't improve such stations' bottom lines. Check out the then 15-cent postcard . . . WLGW's community-of-license, Lancaster is represented not far under the "E" in Hampshire. The "G" or Groveton in its callsign is just under the canoeist. The third locality, Whitefield, once served by the tiny flash-in-the-pan broadcaster, is too small for a map icon but really is about 8 miles south of Lancaster.



Teenager Eleanor Thomas earned an FCC license about four years before she was eligible to vote. Here, the full-fledged operating engineer is pictured working the audio amplifier rack at Hi-Fi AM outlet, W9XAL and experimental TV facility, W9XBY. The AM, on 1530 kilocycles, featured an RCA model 1-D , 1000-watt, high-fidelity transmitter and RCA-Victor amplifiers and velocity microphones. A prized Depression-era QSL from this outfit notes that its "equipment is operated entirely by student engineers enrolled in the training division of First National Television, Inc., who also own and operate television station W9XAL in synchronization with voice channel W9XBY," both hailing from Kansas City, MO.

even the turntables — maybe 12-inch QRK or Collins brand — are as mentally elusive as the proverbial lost word on the tip of one's tongue. My parents do concur, however, that a shoebox Dad filled with gems from his collection of 45-rpm, one-hit-wonders helped me secure the guest DJ opportunity and instantly improved WLGW's repertoire.

That info sounds accurate and reminds me of my Labor Day afternoon swan song sign off when a regular on-air staff member thanked me for filling in for him, but was far more effusive about Dad's records. He predicted that the audience *would* suffer separation anxiety, not necessarily from the absence of my announcing skills, as much as due to me returning that coveted stack of wax to its lender.

Enigmatically, the motel itself, more than a tower, program log, or anything else uniquely radio, plays into my mixed-up personal WLGW history. Though my grandparents would have proudly chauffeured me back to their house following each noon to six air-shift, I gladly stayed put, having been offered lodging and dinner in the establishment as my only compensation other than resume enhancement.

Up until we uncovered the chronological mystery in the 1987 Yearbook, I remembered having accepted the perquisite because it represented the first time I ever stayed in a motel by myself and got to pick anything my heart desired on the room service menu. That thrill of sampling "grown-up" life doesn't square, however, with the apparent reality that in the summer of 1988, I'd already been on my own at college for two semesters. Something in either my history or WLGW's earliest *Broadcasting Yearbook* listing is a year or two out of sync. Such conundrums explain why I've never been able to craft an edition of *Shannon's Broadcast Classics* in less than about 10 hours at the word processor. Although the resulting pages don't look complexly constructed, the foundational research gathering and then trying to iron out the inevitable discrepancies in chronology and facility facts (power levels, antenna patterns, station ownership, etc.) takes patience and wisdom in knowing when enough cross-checking is enough.

Even whipping-up the six to eight photo/image captions per installment can consume a couple of hours. As you may have noticed, I endeavor to tell a secondary story through any given month's captioned pictures, some of which relate to the main story in a contextual, or "value-added" fashion.

All this is not meant to radiate a "woe is me. I have to slave over a hot keyboard and ancient broadcasting documents, again and again," aura. Rather, it is meant to provide a glimpse of how I've been building these columns for the past 10 years.

Actually, it's not just *my* work that goes into these paragraphs. My Dad certainly deserves an honorable mention for his often off-beat story ideas and strangely serendipitous sources. Lots of credit goes to erstwhile *Pop'Comm* editors Harold Ort and Edith Lennon, as well as to the magazine's current editor-in-chief, Richard Fisher. I'm particularly grateful to radio historian Jan Lowry, who has faithfully supplied me with his in-depth background of stations, some of which were on the air for such a short span that few of us would have heard of them otherwise. Such nearly-forgotten stations are by far my favorite column topics.

Hitting The AM & FM History Books

The small town New Hampshire station thematically revisited in this anniversary edition rose and fell before much could ever be written about it. Jan Lowry was on vacation when I decided to imbue mysterious WLGW into this month's article, so acted upon his long-standing mentoring on where to start. I did an Internet search; nothing but several shreds on a blog called Dead New England Stations. The longest was a response to a question from a fellow blogger who had only heard rumors of there having been an AM *proposed* for Lancaster sometime during the end of the Reagan era.

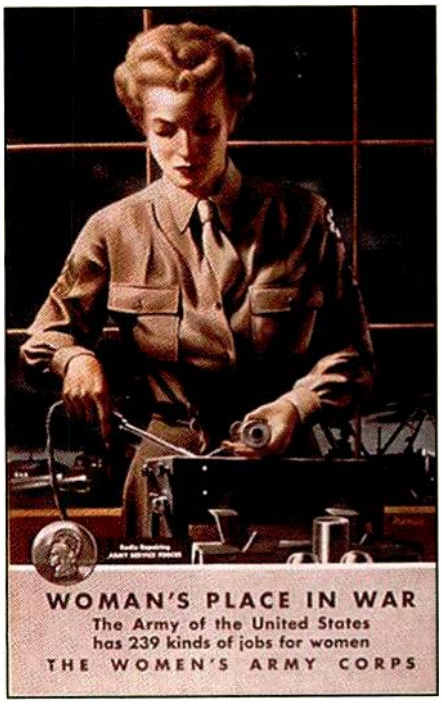
His reply indicated that, in fact, the plan did proceed further than just a paper CP or construction permit: "WLGW Lancaster, NH was only on the air for a short amount of time in the late 1980s until the very early 1990s," he wrote.

"I believe an engineer named Peter Morton, built and put that station on the air . . ." That tech's name sounded vaguely familiar to me, as I recall that he was the station owner/DJ whom I replaced while he generated a few extra bucks as a contract tech revitalizing some tired equipment at a Rutland, Vermont facility — probably the now-defunct WHWB 970.

Jan's other piece of research advice got actualized through my Dad's sturdy oak shelving filled with hefty *Broadcasting Yearbooks*. "Jan always recommended that we look for the subject station's very first mention, note the yearbook's date, and then locate the edition in which any indication of that broadcast outlet has disappeared," my father pointed out.

"Then, with that timeline of data, we'll jot down information that — if appearing to make sense chronologically — will form the skeleton of your historical exposé."

Because I've been doing this kind of thing for a quite a while, Dad didn't need to lecture me any further on the inevitable rabbit holes that such digging typically uncovers. Call letter changes, frequency shifts, ownership transfers, city-of-license moves, and outright facility/for-



Young women with a penchant for technology and an interest in learning electronics were offered instant opportunity for hands-on experience by the American military. This U.S. 1941 Army recruiting poster shows a smartly dressed Women's Army Corp member on the job with a hot soldering iron long after dark. Mrs. Warner, my mother's science teacher in high school, joined the WACs around this time and opted for radio repair near the supply lines at various venues in the European Theater. After the war, she and her new husband — an Army Lieutenant who fell in love with her on the spot when she helped him carry a pile of busted walkie-talkies from a Jeep to her ad hoc electronics fix-it headquarters — opened a drive-in theater near my mom's hometown. During summer vacations, Mrs. Warner maintained all of the drive-in's audio gear and would give her students free movie passes if they would help pass the word, *not to drive off after the show with a speaker still attached to one's car!*

mat/callsign swaps can lead a radio researcher in circles or plain old dead ends, adding hours to the article preparation process.

On the bright side, though, those confounding mazes often turn into catalysts for increasing one's vintage knowledge base and a number of puzzle-solving "*aha!*" moments.

Here's what our kitchen table notes — including tangential personal recollections — looked like with regard to *Broadcasting Yearbook's* treatment of WLGW 1490 Lancaster, NH:

1986 Edition: No listing shown for Lancaster. WYKR Wells River, VT noted as occupying 1490 kHz. That locale is only about 30 air-miles from Lancaster. Seems that WYKR would prevent a CP also on 1490 in Lancaster — even with the region's very poor AM signal ground conductivity.

1987: WLGW 1490 listed as a 1000-watt day/night with a 10/1/87 debut date. WYKR shown as having changed frequency to 1100 kHz with 5 kilowatts daytime only. That freed the frequency for use within WYKR's former 1490 protected contours. Nearby towns to Lancaster are Groveton and Whitefield . . . L-G-W calls likely signify those areas within station's footprint. Format is light adult contemporary. Personnel: Peter S. Morton, owner; Dave Labounty, operations director.

I have a fleeting memory of D. Labounty who showed me how to run the WLGW equipment. I remember he said he'd once worked with Burlington, VT Top-40 outlet, WDOT. Dad recalls stopping briefly at the transmitter site not far from the motel. He introduced himself to the owner/engineer who seemed a bit distracted and was working on what looked to be a late 1940s Gates transmitter in a modest shack. Very short tower! Dad said that it looked to be about 90 feet and grounded as opposed to on an insulator.

1988, 1989, 1990: No change in WLGW listing.

1991: Peter Morton listed as chief engineer; no longer noted as "owner." Michael Beattie shown as president. A Google search for this person notes his February 2012 passing, as well as his obituary heralding his local civic and entrepreneurial achievements — including "radio station owner."

It's not unusual for an engineer-founded station to falter in the business/ad sales areas, and end up being sold to someone with a gregarious personality and lots of commercial acumen.

1992, 1993: No change in WLGW listing, but it's followed by one for WLGW-FM construction permit at 102.3 MHz with 3 kilowatts. The antenna height would be 148 feet above average terrain. The 1993 listing predicts debut FM air-date as Spring 1993 with an antenna height downgraded to 66 feet *below* average terrain.

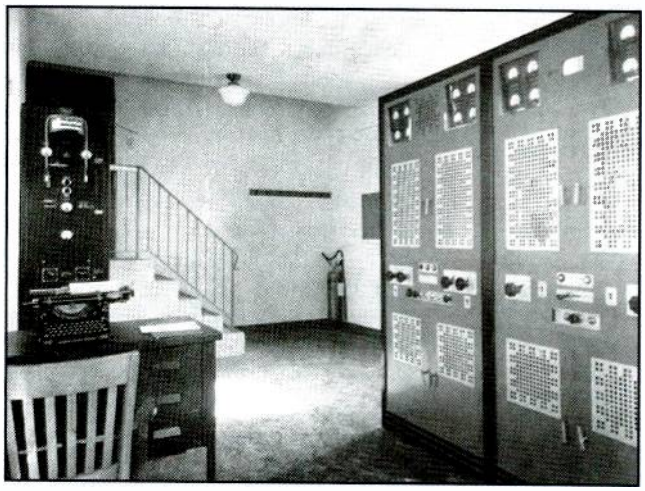
Sounds like a change from the original — expensive and separate — high FM site to a simple side mount on the AM stick. Such a short signal would surely yield spotty coverage in the region's hilly/mountainous terrain!

1994: WLGW entry now says, AM not on air. There's a CP to move the AM transmitter site. (***NOTE:*** *Perhaps just to keep the license hot and have wiggle room for solutions after going dark? –WPC2HUN)* WLGW-FM not on air yet.

1995: Trouble in River City! No listing for WLGW AM, FM, or any broadcast property in Lancaster, NH. Possibly ownership recognized challenges of maintaining a silent station. Maybe sent AM license back to FCC and let FM CP lapse?

It's tough trying to keep a small-signaled station afloat in tiny communities with modest business districts! I can imagine the conversation goes something like this: "Mr. store owner, would you be interested in a $5, 30-second commercial for a dollar? Pretty please with a couple of free bonus spots added on it."

1997 update: CP for new Class "A" FM (WNHT) at Lancaster on 102.3 MHz. No ownership connection to WLGW/WLGW-FM. CP sold and upgraded to Class "C3" facility 1500 watts at 900 feet.



That's a fire extinguisher at the ready in the corner of Hi-Fi AM station W1XBS' spotless transmitter room. The precaution suggested a first-class operation and safety first! Unlike most of the other Hi-Fi grants of 1934, W1XBS wasn't an audio arm of a sister experimental TV station. Rather, licensee, The Waterbury *Republican-American* newspaper, was seeking a way to get a broadcast signal on the air in order to add to the Connecticut-based media company's local prestige and informational influence. By 1939, the paper had put a lot of resources into the experimental radio project and managed to morph W1XBS into Standard Broadcast station WBRY. The 5-kilowatt authorization, albeit through a severely directional antenna, later — following ownership changes — became WTBY and then WQQW before going silent in 1993.

The classical musician characters depicted as letters of WQXR's callsign stand atop the broadcaster's slogan, *The High Fidelity Station*. The station's genesis was a primitive, mechanically scanned, TV outlet first fired-up by John Hogan in 1929. Audio got added to the flickering images via W2XR in 1934. This classically formatted facility became so popular with the sophisticated set in America's #1 media market that Hogan and his partners jettisoned the video endeavor and upgraded W2XR to commercial classical music programmed WQXR two years later. A pioneer FM, W2XQR (eventually becoming WQXR-FM) took to the Gotham air in 1939. For much of these stations' lives, they were operated by *The New York Times*. That ownership span became history with the *Times*' sale of WQXR 1560 — which dropped the symphonic sound — in 2007 and finally as the WQXR-FM calls and format going to public broadcaster WNYC in a 2009 cash/frequency swap deal that landed WQXR-FM on a facility with a smaller footprint.

The calls were changed to WXXS (FM). The coverage and ad sales potential dramatically increased over that of earlier proposed WLGW-FM and that of Class IV peanut-whistle WLGW AM where I had my announcing debut.

Long-Ago Radio Lady

Even if it turns out that I was on the upside of 18 and a half — rather than our informal family history's conventional recollection of my being approximately of "new driver's license" age — when introducing the tunes on poor little WLGW, I can be assured that I was in good company.

According to a brief article in the June 1936 issue of *Modern Mechanix*, another then 18-year-old was having a blast in the radio business. In the piece headlined *Kansas Girl Genius Operates Television-Radio Station*, Eleanor Thomas earned the magazine's title, "Youngest of Women Broadcasters." Reportedly, the math whiz spent a semester in college, but exited for an engineering school so she could become part of the fledgling Depression-era field of electronics.

Quickly grasping the curriculum, she aced the FCC's grueling *First Class Operator* exam, and received Commission applause as the "youngest member of her sex" to do so. The signatures on that governmental certification and her scholastic diploma had barely dried when she got snapped up by First National Television, Inc., to serve as an operating engineer for its High-Fidelity AM station W9XBY and sister TV outlet W9XAL. Both of those Kansas City, Missouri stations were experimental authorizations, hence the alpha/numeric calls.

Prior to the Standard Broadcast Band exceeding 1500 kilocycles, the FCC's predecessor, Federal Radio Commission, had opened up a trio of 20-kilocycle wide channels, double a "normal" AM Broadcast facility's dial width and designed to take advantage of pre-FM, state-of-the-art sound transmission.

The 1933 action — one that was decided by government regulators who probably had not yet heard of E. H. Armstrong's frequency modulation breakthroughs — called for applications to build wide-band outlets on 1530, 1550, and 1570 kilocycles in places where such 1000-watt, full-time grants would not interfere with police broadcasts, which were then common in the 1500- to 1700-kilocycle range.

Much to the FRC's chagrin, less than 10 applications were submitted. Out of that paltry spring 1934 group, four were approved. The most famous of those grants was John V. L. Hogan's W2XR, 1550 kilocycles on Long Island, New York.

Hogan figured on using his 20 kilohertz to run classical music behind a test pattern for an experimental TV station. Few Big Apple area folks had the gear needed to view video, but Beethoven came in wide, loud, and amazingly clear on lots of New York, New Jersey, and southern Connecticut radios equipped with the "Police Band." Hogan gave up the pictures and got the OK for commercial call letters WQXR (because "Q" sounded like "2"), which morphed into a legendary classical music format at 1560 kilohertz that lasted there for decades and has since been adopted — in spirit — by public station WNYC-FM.

Another 1550-kilocycle wide-band CP was given the green light, this one in Bakersfield, California. A pair of grants for 1530-kilocycle station went to *The American-Republican* newspaper publishers in Waterbury, Connecticut, while the second was received by an active radio teenager Eleanor Thomas' eager

employer in Kansas City and dubbed W9XBY.

Incidentally, a New Jersey firm and one in Boston each applied for hi-fi AM permits shortly after the previously mentioned grants. Though the newly established FCC apparently gave the go-ahead, those proposed stations went no further than ideas on paper.

As for the Missouri CP, it was enthusiastically built high-up in the Kansas City Power & Light building and presumably with help from students in the subsidiary radio school run by permittee First National Television, Inc. — and made it to the Midwestern airwaves on the last day of 1934.

The transmitter and associated single tower became situated on a southern boundary — near 86th Street and Wornall Road — of its city-of-license. The skies sure were electrically clearer in those days, as W9XBY's single kilowatt soon netted several thousand listeners' reception reports from Canada and throughout the US. The station's nighttime skip even provided a nationwide introduction to the then nascent Count Basie Orchestra when a show biz bigwig hunting for fresh talent happened to catch Basie's contagious beat on a car radio while in Chicago. Like that of its East Coast counterpart, W2XR/WQXR, the Kansas City Hi-Fi AM's musical programming — albeit much more hip than the metropolis' classical outlet — caused First National Television brass to shift to conventional AM transmission where commercialization opportunities were greater.

Consequently, W9XBY became KXBY presumably sometime in late 1936 or early 1937. During the waning months of 1938, KXBY's calls were changed to KITE. Additional changes included a home at 1590 kilocycles when many North American stations' dial positions were shifted in compliance with a monumental March 1941 radio treaty proviso. A little over a year later and following some corporate in-fighting, internal legal battles, fiscal troubles, and a failed attempt to sell KITE, the 1000-watt, full-timer's handle was again modified, this time to KXKX. Apparently, licensee First National Television's name was "mud" at the local bank, as even the FCC had heard that the company "was without funds to continue operations."

When the Commission held an October 1942 hearing in order to determine if First National Television's KXKX should continue to be licensed, regulators discovered that the station had already gone dark. They didn't discover that serious flaw via any representative of the licensee, however, as nobody from First National TV had bothered to show up. Not being too impressed with such an oversight, the hearing examiner essentially yanked KXKX's license lifeline faster than I managed to blow out the 10 little "tower" candles on my parents' crazy congratulatory cake.

And so begins a new decade of Shannon's Broadcast Classics in Pop'Comm. Please join us again next month when we will figuratively return to the antique airwaves. Meantime, thank you, dear readers, for perusing my column and for all of your kind support.

The SX-101A: Restore, or Use As Found? Consider the Other Side of the Coin!

By Peter Bertini, K1ZJH

"... If you're a braver soul than I, I'll offer some advice on the safest way to go about firing up an older radio."

I'm aware of a few SX-101A owners who've had some success using their SX-101 receivers in *as found* condition. While I feel this is risky, these are folks who are well versed in electronics, and know what to watch for when a problem arises.

Should you plug in your newly acquired receiver to see if it works? And if it does, should you continue to use it?

My advice is to always do a full restoration. That means replacing all of the wax paper and electrolytic capacitors, replacing all out-of-tolerance resistors, and testing all of the tubes and replacing the weak ones as needed. But, if you're a braver soul than I, I'll offer some advice on the safest way to go about firing up an older radio.

Apply AC Power

Begin by removing the rectifier tube, and also check for any line bypass or across-the-line capacitors. These should be removed and replaced with capacitors that are UL rated for across-the-line or AC bypass service.

Original or not, these are major safety components that must be replaced in any radio before it is used. If not replaced, they should be removed and discarded. Once this is done, slowly apply power to the receiver using a variable AC power supply, such as the Heath SP-5220 shown in **Photo A**.

The SP-5220 incorporates a *variac* (to vary the AC voltage) autotransformer, AC isolation transformer, and meters to monitor the supply voltage and current going to the radio under test. These are *must have* items for a well-equipped workshop.

The Heathkit SP-5220 combines several useful features in one convenient enclosure. In addition, it is fused for both 1-amp and 3-amp loads. *(**WATCH:** A demonstration of another Heathkit variable power supply — the IP-5520 — can be seen at <http://bit.ly/OpYQJz>. – K1ZJH)*

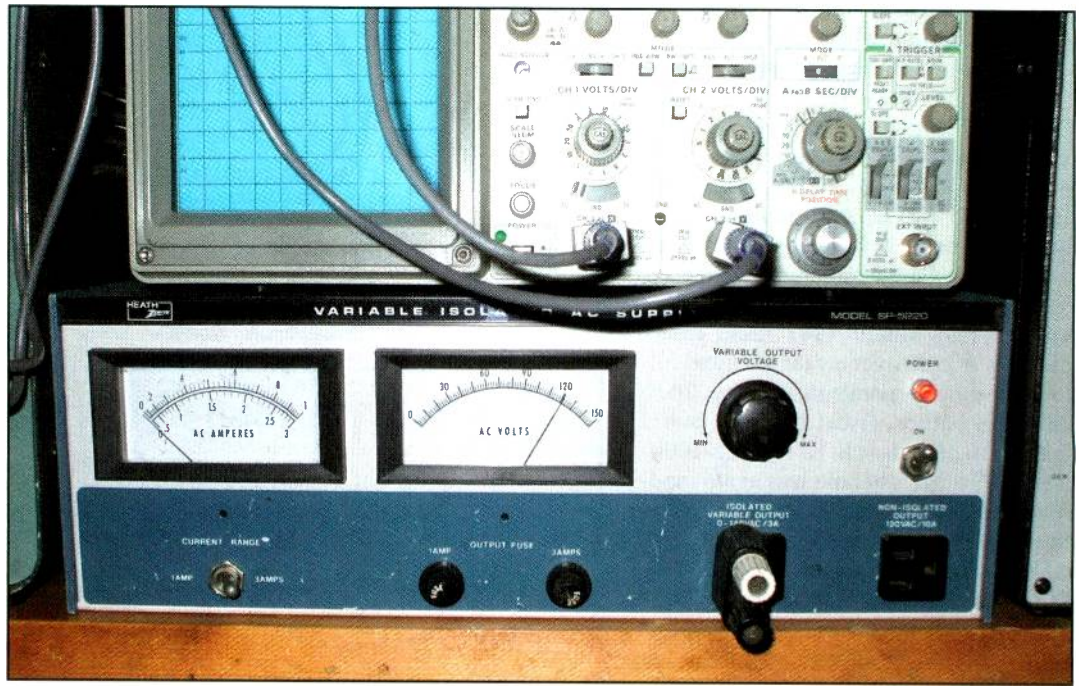


Photo A. The author's Heath SP-5220 combines a *variac*, isolation transformer, fused output, and full current and voltage metering in one compact package. *(Photography by K1ZJH)*

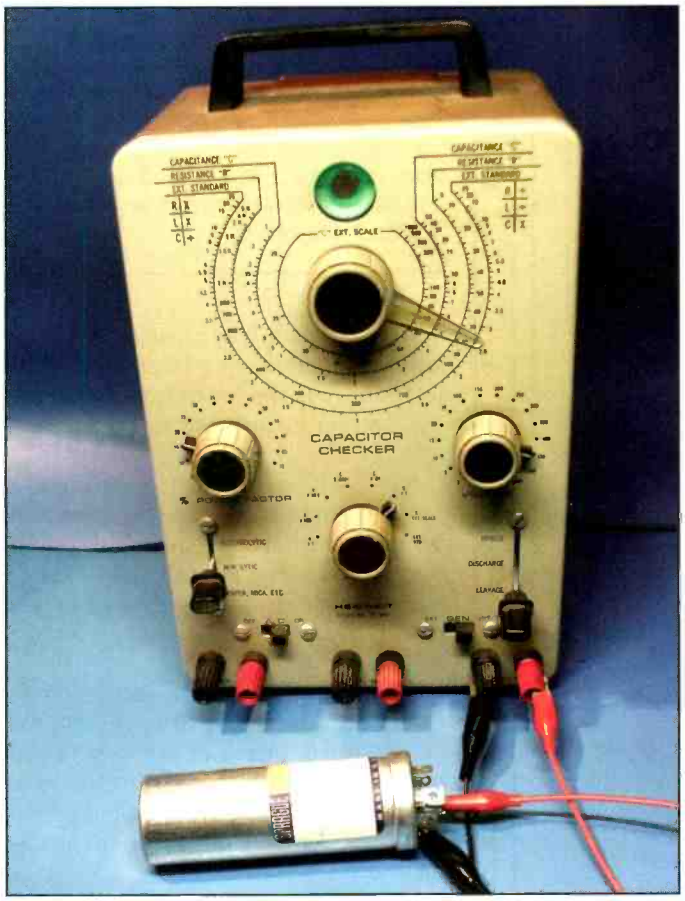


Photo B. The Heathkit IT-28 Capacitor Bridge is shown being used to reform an NOS Sprague capacitor. The eye tube closes if leakage current exceeds recommended limits. In this case, the cap is being tested as a mini-electrolytic, which is the most stringent leakage current test.

Photo C. The author's Stark variable DC supply, along with a Fluke 177 digital meter, is used in this test setup which measures NOS electrolytic leakage currents. The Sprague NOS electrolytic capacitor is showing less than 50 µA at near-rated operating voltage.

I'd also suggest a BK Precision 1655, or a Sencore PR57. Those also offer isolation, a variac, and metering all in one unit. While *Variac*® is a U.S. registered trademark for adjustable autotransformers made by General Radio since 1934, the term *variac* has become generic over the years. See a *variac* in action at <http://bit.ly/Oq0vPi>.

With the rectifier tube removed, set the *variac* AC voltage to zero volts, and turn the receiver on. Slowly increase the AC voltage, while carefully observing the current being drawn by the receiver. Watch the pilot lamps and tube filaments, and keep a sharp eye and nose for smoke or odd odors! The rectifier tube is removed during this initial test, since if there is an existing problem it will be most likely be due to bad electrolytic filter caps or shorted wax paper bypass capacitors.

Reforming Electrolytic Capacitors

There is a lot of anecdotal advice offered on the Internet regarding the use of a *variac* to reform electrolytic capacitors in a radio. The premise is that by leaving the rectifier tube in the radio, the *variac* will allow the restorer to slowly increase the DC voltage to the filters by slowly increasing the AC input voltage to the radio. This sounds like it might work, until one really thinks about it!

First problem: The rectifier tube's cathode must reach a certain operating temperate before it begins to emit electrons. At that point, the DC voltage is probably higher than most realize.

Second problem: To properly reform an electrolytic capacitor, we must monitor the leakage current flowing into the capacitor.

Here's my take: Remove the old electrolytic capacitor and toss it into the nearest empty galvanized garbage can. *If it makes a noise when it hits, it is bad!* Take it back out, and rebuild it by hiding new parts inside of the old shell. But, for those who want to attempt reforming old capacitors, here are two methods that I'd suggest trying.

Using a Capacitor Tester

My Heath IT-28 Capacitance Bridge is designed to test capacitors for leakage current at their rated operating voltage. The test voltage is adjustable in fixed steps up to a maximum of 600 volts.

The IT-28 has two sensitivity positions for measuring electrolytic capacitor leakage current: 2 mA and 15 µA. It will test paper and mica caps for leakage currents as low as 2 uA. **Photo B** shows the test setup to reform an electrolytic capacitor. The cap being tested is a new, old stock capacitor from my parts bins.

The date code indicates the capacitor was made in 1982 — that's 30 years ago. The caps in the SX-101 are 54 years old.

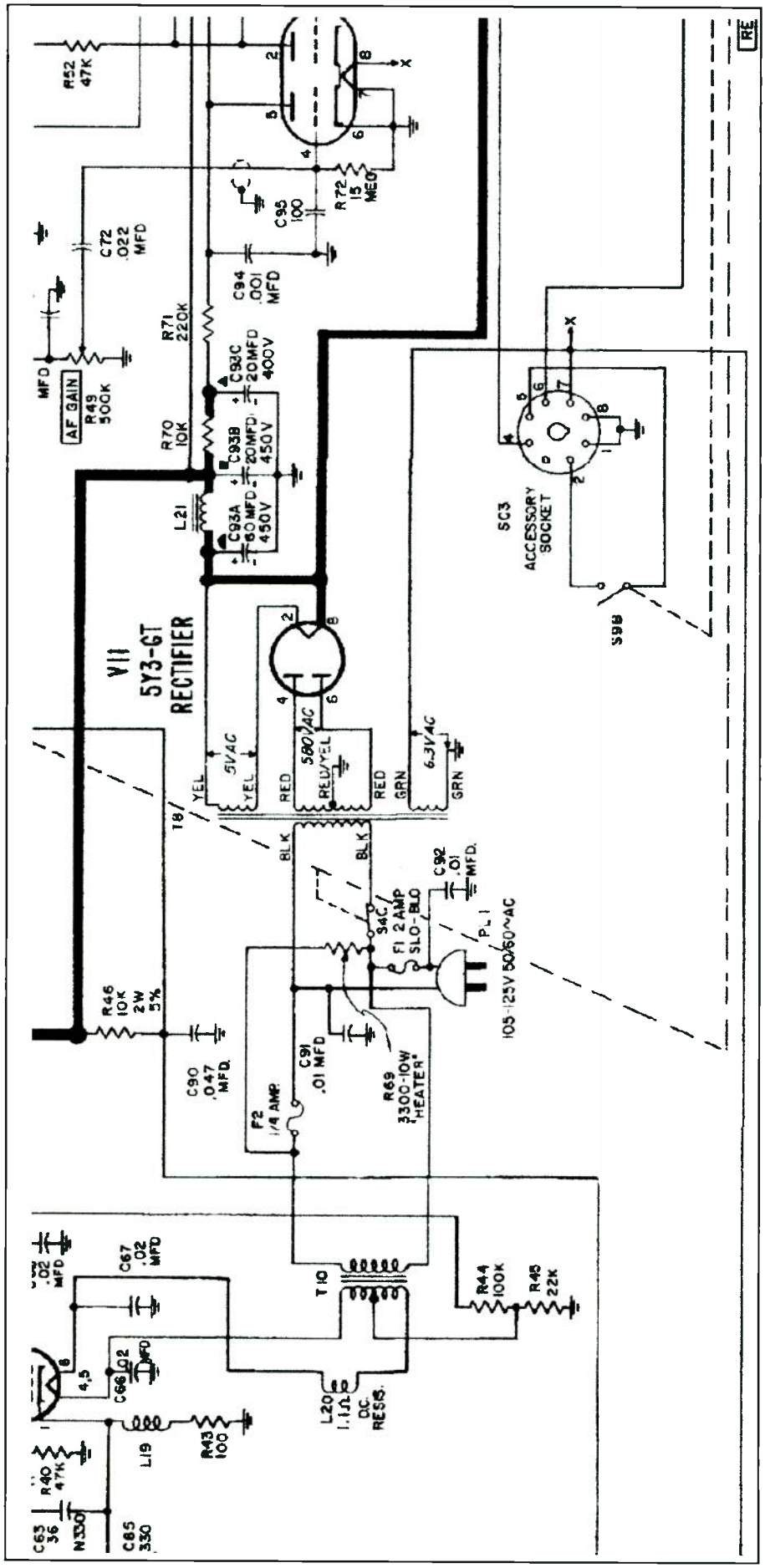


Figure 1. This is a part of the schematic for the SX-101A power section. AC line bypass capacitors C91 and C92 are replaced with UL AC line pass-rated 0.01-mFd capacitors. The AC line fuse for the 12BY7 filament transformer (F2) is replaced with a chassis-mounted fuse holder. See **Photo H** for details.

Testing an electrolytic capacitor in a radio will involve removing leads so that the test voltage is applied only to the capacitor section undergoing reforming and testing.

For a 450-volt capacitor, we'd begin by slowly increasing the test voltage until we reach the rated operating voltage for the capacitor. The eye tube will close if the capacitor is drawing excessive current. Don't increase the voltage beyond this point!

The capacitor, if good, should quickly reform. The tube will open, and the voltage can be increased to the next fixed increment. Repeat these steps until the capacitor is working at its maximum rated voltage while staying below the maximum leakage current.

A good cap will quickly reform. A cap that takes more than several seconds to reform is going to be a problem — *sooner than later.* The IT-28 incorporates a 10K-ohm series resistor to limit the current to a safe level.

If the current isn't limited, a defective electrolytic capacitor can overheat and explode. I've reformed numerous old stock capacitors over the years. Some brands are much worse than others are. Some are much better. Caps that have taken several minutes to reform have always exhibited the same leakage when they were allowed to sit for several days.

Using a Variable DC Supply

My preferred method is how the test setup is shown in **Photo C**. The shop's Stark PS-501A variable DC power supply is used to provide a 0-to-400-VDC test voltage to the capacitor.

A 10K-ohm, wire-wound resistor is used to limit the leakage current. My Fluke 177 digital voltmeter is measuring the voltage drop across the 10K-ohm, wire-wound resistor. The voltage across the resistor indicates the leakage current.

We know from Ohms Law that I = E/R. If there are 10 volts across the resistor, the capacitor leakage current is: I = 10/10,000, or 0.001 amps (1 mA)

Photo D. Location of the three-section main filter capacitor on the SX-101A chassis. This capacitor C93.

Photo E. Electrolytic can capacitors usually have a label that indicates the values, and how to identify them. The geometric symbols correlate to the symbols adjacent to the solder terminal lugs.

Photo F. The symbols for the various sections are embossed on the insulation material for this four-section capacitor.

Photo G. This illustrates another marking method to show the legend for each section in a mutisection electrolytic capacitor. Note the triangle marking that is fully etched adjacent to the terminal lead in this capacitor.

A 1-volt drop is equal to 100-uA leakage current. The capacitor under test in **Photo C** is showing around 245 mV across the 10K-ohm series resistor, at 410 VDC. This is a mere 25-μA of leakage current.

The capacitor is a good quality Sprague. While it is at least 30 years old, it might still be useable for another decade. This is something I'd chance using in my own homemade equipment, but never in a restoration or in a customer's radio!

The SX-101A Power Supply

Figure 1 is a partial scan of the SX-101A schematic covering the receiver's power supply.

C93 is a three-section electrolytic capacitor, and is the DC filter capacitor for the power supply. It is located near the power transformer and the 5Y3GT rectifier tube, **Photo D**.

It may be hard to see in the schematic, but the three sections are A (60 mFd @450 VDC), B (20 mFd @ 450 VDC) and C (20 mFd at 400 VDC).

Looking closer, there are three symbols shown for each of these capacitor sections:

- Filled-in half circle
- Filled-in square
- Filled-in triangle

These are the same as the marking shown on the label of a capacitor can to indicate which leads are associated with the internal capacitor sections. A can electrolytic usually contains between one and four sections. The fourth section is usually just a blank symbol.

Look at the capacitor label shown in **Photo E**.

This one has four-sections and the label indicates the voltage, capacitance value, and symbol for each of the four sections. The date code is 2081, meaning this cap was made in the 20th week of 1981.

The symbols are used to mark the solder terminals on the bottom of the electrolytic capacitor. **Photos F** and **G** show the two typical marking methods that are used.

In **Photo F**, the symbols are engraved into the Phenolic material used for the base insulator. In **Photo G**, the symbols are cut through the insulator. The triangle symbol can be seen where the terminal exits the base insulation material.

Electrolytic Capacitor Replacements

I didn't rebuild the original can capacitor in this restoration. I can always go back and do so later if I desire. Instead, the three capacitors were replaced using 450-volt radial lead capacitors. The 60-mFd section was replaced with a 68-mFd @450-volt capacitor, while the two 20-mFd capacitors were replaced with 22-mFd @ 450-volt capacitors.

The SX-101A wiring allowed the external replacement filter caps to be mounted on existing terminal strip lugs. The original filter capacitor is disconnected from the circuit. *Don't go any higher than 68 mFd for the input filter capacitor!* The value affects the peak repetitive charging current for the 5Y3 rectifier. Higher values can damage the tube, and stress the power transformer. The replacement caps can be seen in **Photo H**.

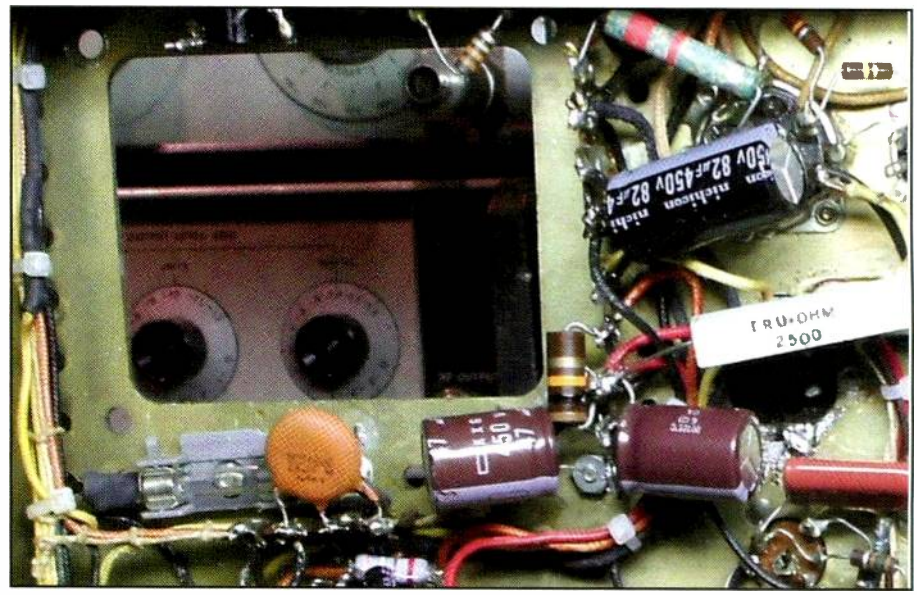


Photo H. This under-chassis photo shows the replacement capacitors for C93 and the new fuse holder for F2.

Touching on Related Restoration Topics

I had hoped to be further along, but we have a lot of material to cover, and the SX-101A gives me an opportunity to cover related restoration topics that are not only applicable to the SX-101A, but to other equipment as well.

To be continued in our next installment! Until next time, keep those soldering irons warm, and those old tubes glowing! – K1ZJH.

MONITORING *(from page 56)*

Brian Arsenault, WPC1FIY, Leicester, Massachusetts

I fell in love with utility station listening while learning Morse code back in 1987, and hold the amateur radio callsign N1FIY. To this day, I spend more time monitoring HF, VHF, and UHF utilities than I operate on the amateur bands.

Charlie Clark, WPC8CRC, Galion, Ohio

My father gave me a portable Zenith AM transistor radio in the late '50s. It measured about 3 inches by 5 inches by 1 inch and was tan in color with a wire support stand. That started my listening.

A few years later I got Grandpa's floor model AM/SW radio and then a *boom box*-style AM/SW radio. I put up a picture-wire antenna hooked to the basement ceiling and got QSLs from WBZ, WLS, KMOX, WABC, and AM stations in New York City, New Orleans, Buffalo, and Hartford among others! Then I met a *girl!*

In 1980 I got a Sony ICF7600A and started QSLing shortwave stations. I slowed down for 20 years and now I listen mostly to AM with all the interference, and a little shortwave!

Thanks for the *Pop'Comm Monitoring Station* program.

James C. Trame, WPC4FJT, Knoxville, Tennessee

I started as an SWL in 1966 with a Lafayette HA-63. I still have it, recently restored, along with a few other classic receivers. For SWL currently I use a Grundig Satellit 800 and a Sangean 909X.

As a monitor in those days I was registered as WDX4JT. I still have my certificate. As a ham, I am a General class licensee with the callsign W4FJT and am currently active on 2-meter FM and 20-meter SSB. My WPC station ID sign mirrors my amateur radio callsign. As such, it also comes close to my old WDX ID sign as well.

I chose my ham callsign as a tribute to the late Bob Sievers of WOWO radio in Ft. Wayne. I used to listen to Bob every morning and as a ham he was licensed as W9FJT. My callsign, W4FJT, is the Southeast version of Bob's call. I heard him as a ham one day on 40 meters on the HA-63 and wrote him — and he sent back a nice verification on WOWO letterhead.

I still have all my old SWL QSL cards and pennants from the old days. I was a member of NASWA and collected the verifications to qualify for certificates. Now I'm collecting ham QSLs of course, but I still enjoy the SWL aspect of the hobby.

David Morrison, KPC3RV, New Stanton, Pennsylvania

I am a retired pastor and teacher, and my wife, Susan, and I live full time in our motor home. My monitoring post is located in a trailer we use to haul our car. Pennsylvania is our legal address but our location is always changing, which keeps things interesting for listening.

Thank you for all the good work in providing such a great digital service.

Julio Cabrera Hernández, EAPC8QL, Canary Islands, Spain

I chose EAPC8QL for my *Pop'Comm Monitoring Station* identification sign because QL stands for *quality listener.*

Phillip Pacier, KPC6NH, Anaheim, California

KPC6NH reflects my well-used amateur radio callsign, AD6NH. Long before I was a ham, I was an AM DXer. I first experimented with simple transistor radios in the early '80s by adding long-wire antennas around the backyard and staying up late at night to catch the mysterious waves!

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Sometimes Life in Cowfield County Just Ain't Fair

by Bill Price, N3AVY
<chrodoc@gmail.com>

"Long ago, Frank Sinatra summed it up beautifully: 'I once bought a pumpkin farm, and they called off Halloween.'"

Why am I so blessed with communication problems? Just lucky? It's probably because I don't live as good a life as I should.

In a time when I can't justify having a 2-meter rig to pass the time while driving — because I have a cell phone, supplied by my employer — I'm probably the only one who can see a whole shipload of bars (indicating a good signal, on my phone) yet can't make a call from within five miles of my home.

No one — including the carrier — seems to be able to tell me why. The phone, which has a crank on the side and requires me to ask "Jenny" (the same operator you might remember from *Lassie*) to make a connection, has also stopped working in other areas where it had previously worked.

It also seems that no matter which system I'm working on, each leg will pass a good signal from point A to point B, then relay it cleanly from point B to points C, then to D, and on to E. I can verify the signals at each point, yet I get reports of a terrible signal from the folks at point E. Every link in the chain works fine, yet the chain doesn't seem to hold. I should be thankful — after all, it's job security.

I deal with two microwave transmitter companies. One is a small company, which works miracles, does them quickly, and doesn't charge too much. For an organization like ours, which still uses transmitters and receivers powered by both charcoal and steam, they keep them running well beyond their expected life.

Then there is *the other company*. A large manufacturer. Each time I call, I ask them to verify they're actually still in business because they have given me every possible excuse as to why I'm not getting my final amplifier module back and many excuses they offer are — as they say at the FCC — *mutually exclusive*.

A friend from my group of ham and engineer friends who plays chromatic harmonica is a very senior engineer for a very large broadcasting company. He jokes about his problems when we talk shop, but I'm sure he and his company don't experience the kind of problems — and the kind of service — I seem to get. In fact, if I tried to call him right now (if my cell phone would actually work), his cell phone would probably work just fine — and probably works *just fine* all the time.

I realize that by living in Cowfield County, I'm doomed with dial-up Internet service for the foreseeable future, but it's really cramping my style to have to drive to the nearby burger joint with my (also company provided) tablet computer. It seems that connecting dial-up service to a router so that I can use the tablet at home is another thing that just *won't happen*.

Sinatra once summed it up: *I once bought a pumpkin farm, and they called off Halloween.* The boss, our chief engineer, walked into one of the spaces where I was rewiring a rack of microwave and fiber-optic equipment and stood behind me quietly — not letting on he was there. After listening to me utter what he thought might have been a short (and loud) prayer, he asked what the problem was.

My sweaty hands were just not getting the nice compression BNC connectors onto the not-so-nice cable, which was purported to be RG6, but really was something more like RG6.3 or 6.4.

No matter which connectors we buy (and we buy the good ones), we always end up trying to install them onto some non-standard cable that our riggers must have found at a surplus store when installing our cable runs to the roof or the tower.

The Boss says: *Here, let me try.* I did.

It was fun to watch him go through the same gyrations that I had for the previous 15 minutes. We vowed from that point on we would supply the cable for any future installations — and it would be standard. After that, we spent some careful time paring the dialectric from inside the braid, and paring the outer jacket so that we could get the standard connector onto the non-standard cable.

Our wives always wonder why our hands are always chewed up as if we install barbed wire for a living. So does our management. They do, however, supply us with Band-Aids™. Antacid, too.

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[1]Note that certain frequencies are unavailable. [2]5W output

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