

POPULAR SEPTEMBER 2013 COMMUNICATIONS

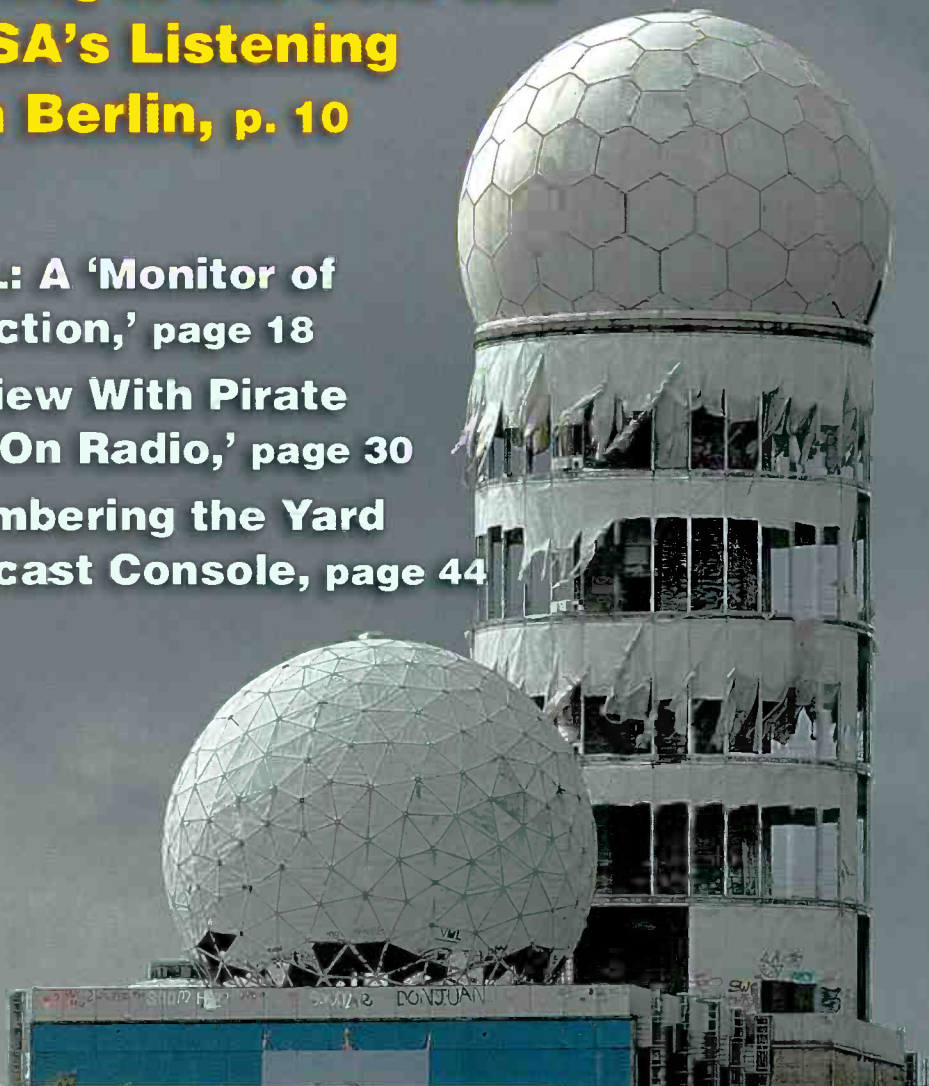
E-Region Prop • CB Feedback • Joys of RG-6 • SWling • Gordo's Dipole Class

The Ghosts of Teufelsberg

Harkening to the Cold War Era, NSA's Listening Post in Berlin, p. 10

PLUS:

- GPC3L: A 'Monitor of Distinction,' page 18
- Interview With Pirate 'Rave On Radio,' page 30
- Remembering the Yard Broadcast Console, page 44



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Sunday, September 15

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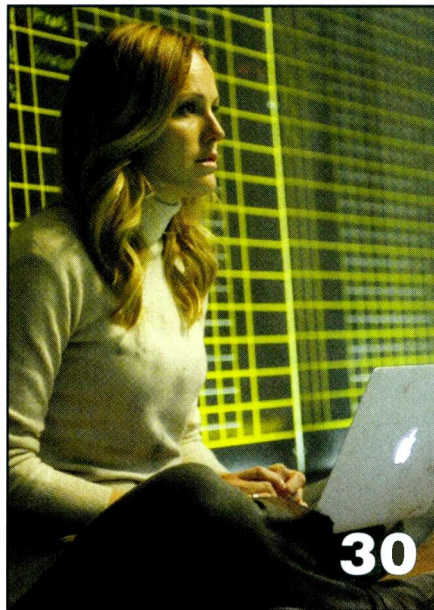
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POPULAR COMMUNICATIONS CONTENTS

SEPTEMBER 2013
VOLUME 32, NUMBER 1



COLUMNS

- 8 Horizons**
A Trio of Updates: 4K, 3-D, and Low-Power Radio
by Rob de Santos, K8RKD
- 22 Monitoring**
'Frustrated in Pennsylvania' Is Wondering 'What's Next?'
by Richard Fisher, KPC6PC
- 24 CB and More**
We're Getting Feedback On the CB Scene — Hooray!
by Cory GB Sickles, WPC2CS/WA3UVV
- 37 Ham Discoveries**
A Coax 'Switch' that Saves Money and Boosts Performance!
by Kirk Kleinschmidt, KPC0ZZZ/NT0Z
- 40 World Band Tuning Tips**
World News, Commentary, Music, Sports, And Drama At Your Fingertips
- 43 Power Up**
New, Interesting and Useful Communications Products
by Jason Feldman, WPC2COD
- 50 Plane Sense**
Navigating Canada's Version of the FAA — NAV CANADA
by Bill Hoefer, KPC4KGC/KG4KGC
- 54 The Propagation Corner**
This Month, the E-Region Goes Up in Thin(ner) Air
by Tomas Hood, WPC7USA/NW7US
- 69 Shannon's Broadcast Classics**
That Old Red Head
by Shannon Huniwell, WPC2HUN
- 80 The Loose Connection**
As Is Always the Case, 'I Need More Stuff!'
by Bill Price, N3AVY

DEPARTMENTS

- 4 Tuning In**
An Editorial
- 5 Newsworthy**
Unwired, InfoCentral, And Washington Beat
- 21 Spurious Signals**
- 42 Reader Survey**
- 75 Across the Spectrum**

FEATURES

- 10 Same Mission, Different Era: Remembering the National Security Agency, Circa 1961**
The NSA's Sprawling Teufelsberg Listening Station Put the 'Cold' in War
by R.B. Sturtevant, WPC7RBS/AD7IL
- 14 Double Your Pleasure: Variations on a Dipole**
by Gordon West, WPC6NOA/WB6NOA

FEATURED COLUMNS

- 18 Monitor of the Month**
GPC3L, Hendon, London, England: Laurie Margolis Named 'Pop'Comm Monitor of Distinction'
by Laurie Margolis, GPC3L, G3UML
- 30 COPS**
At Pirate 'Rave On Radio,' They Aim To Please
by Steven Handler, WPC9JXX
- 44 Broadcast Technology**
A Yard-Long Trip Down Memory Lane
by Bruce A. Conti, WPC1CAT
- 61 Global Information Guide**
The Shortwave Community Loses a Legend and Giant
by Gerry L. Dexter, WPC9GLD



ON THE COVER

Weathered, neglected, and almost forgotten, the National Security Agency's sprawling listening post atop Teufelsberg — a manmade pile of rubble in Berlin, Germany — is but a shadow of its self from the early 1960s. Some communications historians, including *Pop'Comm's* R.B. Sturtevant, WPC7RBS, point to the opening of this spy station as the place and time where the Cold War "got serious." With NSA in the headlines today, R.B. takes us back 40 years to an agency with the same mission as today's, but in a vastly different setting, page 10. (Cover photography by Jochen Jansen via Wikimedia Commons)

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MFJ-462B
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EDITORIAL

Tuning In

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

10-4, We're Reading Your CB Signals Loud and Clear

From the *Pleasant Surprises Department* comes news of so many readers' enthusiastic thumbs up to the return of a Citizens Band column to the pages of *Pop'Comm*.

May's edition marked the launch of veteran CBER Cory GB Sickles, WPC3CS's, monthly *CB and More* (*SEE: "The Reluctant CBER: How a Lynx 23 Got My Radio Waves A-Fluttering On the Citizens Band," May, page 23. – KPC6PC*)

It didn't take long for the cards, letters and emails to tell us many of you have missed *Pop'Comm* CB coverage and how happy you are that it's back.

Cory brings readers a sampling of your comments in a sidebar with this month's *CB and More*, headlined "*Incoming CB Mail ...*" beginning on page 24.

It is clear there is a contingent in the hobby communications community — no doubt a growing one — that loves the excitement on the 40 channels at 27 MHz.

- There are CBERs who have fallen away from the band who have been rejuvenated and are eager to return.
- There are old timers, dating to the callsign era, who are thrilled with *CB and More's* recognition of the legitimacy of Citizens Band communication.
- And there are newcomers and veterans alike who hear less-than-acceptable operating practices across the channels and want to do something about it — such as setting an example for other operators by doing it right. It's an initiative Cory heartily supports.

This is *CB and More's* fifth "episode" and so far the Polaroid we've gotten shows more and more of you are appreciating Cory's work. Snapshots are good, but in readership studies, murals are better. So our *September Reader Survey* is Citizens Band-related.

We hope you will take a few minutes to fill out the response form appearing on page 42, or answer the questions online at <<http://svy.mk/19KcHmA>>.

Meantime, please keep us posted on your CB activities and interest — or your disinterest. It's one of the only means for finding out what the majority of readers want to see in *Popular Communications*. Thanks in advance for sharing your thoughts. — KPC6PC

Results: Pop'Comm April 2013 Reader Survey

Speaking of readership, you've told us you're quite interested in the results of *Pop'Comm's* monthly surveys, so here are April's, when we focused on your hobby communications shopping and purchasing habits.

Our numbers are a combination of data from both the in-magazine and online surveys. Here are April's Qs&As:

As a communications hobbyist, what sources do you use to be informed on the equipment you buy? (Choose all that apply.)

Word of mouth	61%
Print advertising	79
Online advertising	24
Vendors at swap meets and hamfests	37
Published equipment reviews in magazines, periodicals	89
Other	11

What advertising do you focus on in *Pop'Comm*? (Choose all that apply.)

Receivers from major manufacturers	68%
Radio accessories from major manufacturers	58
Books and other resource material	42
Antennas and accessories	50
High-frequency shortwave receivers	53
VHF/UHF scanners	50

What most influences your buying decisions? (Choose all that apply.)

Advertising	21%
What others say	13
Published reviews	50
No one source	42

Pop'Comm-WRO Live Online Chat, September 15

Don't miss this month's *Pop'Comm-WRO Live Online Chat* beginning at 8 p.m. Eastern time on Sunday, September 15. We'll call it "Mid-Month Madness," and promise it will be casual, fun, and laid back — just the way you'd like to wrap up a near end-of-summer weekend.

At chat time go to <<http://worldradioonline.blogspot.com>>, check in and get in on an hour of fun. See you there!

— Richard Fisher, KPC6PC

Scan Our Web Site

The Weirder Side of Wireless, and Beyond

Compiled by
Richard Fisher,
KPC6PC

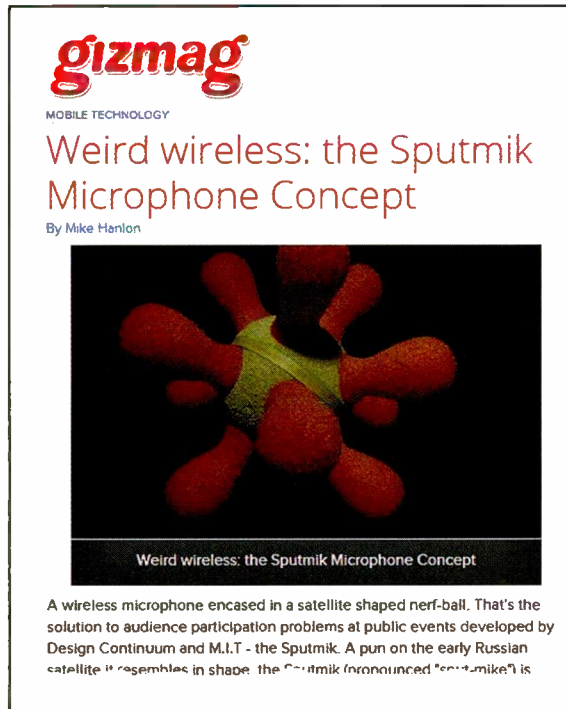


Photo A. The basketball-sized *Sputmik* promises to revolutionize audience participation in talk television and public forums — at least Design Continuum and people at MIT are hoping so.
(Internet screen grab <<http://bit.ly/16EjcFx>>)

A ‘Sputmik’ Goes into Audience Orbit

Letterman. Leno. Fallon. Ferguson. Kimmel. How many miles do you think they put on their shoes each year running into the audience with a microphone? (**ALERT:** Rhetorical question.)

Perhaps we won’t see them as often in the JCPenney shoe department with the development of *Sputmik* (pronounced *sput-mike*) — a wireless microphone encased in NERF®-ball material shaped like a satellite. It can be thrown from one audience participant to the next.

Teams at Design Continuum and MIT — yes, the super brains at the Massachusetts Institute of Technology — came up with the idea. If you hadn’t already guessed, *Sputmik* is a word play on *Sputnik*, the Russian satellite from the 1950s.

According to *Gizmag* <<http://bit.ly/16EjcFx>> **Photo A**, “the ‘arms’ of the basketball-sized *Sputmik* all glow when the microphone is not in use, but when the microphone is operated by depressing a button on the central section, all of the lights except for the one adjacent to the microphone automatically switch-off. Once the button is released the *Sputmik* re-lights and it’s off-across the room again like a beach ball at the cricket.” *Huh?*

It was first proposed by Ted Selker at the MIT Media Lab. Design Continuum tweaked the concept and made the prototypes.

Look for *Sputmik* in a satellite-tracking program near you.

Wyoming Radio Host Arrested for Voting

Memo to radio personalities: If you’ve got a criminal past as a felon, take care in talking about it on the air.

David Koch, Big Horn Radio Network news director, was arrested in Cody, Wyoming in June after co-hosting “*Speak Your Piece*” on KODI-AM 1400 kHz. *Whahoppin?*

Citing an affidavit, the *Casper Star-Tribune* reported a caller to the live show asked Koch if he’d voted in the 2012 election. Koch said, indeed, he had — and was a registered Republican. “The caller then asked fellow ‘*Speak Your Piece*’ co-host Tom Morrison if the station did background checks,” the story said. “Morrison said he didn’t think it was important.” *Ouch.* According to the Wyoming Division of Criminal Investigation, the *Tribune* reported, Koch had been “convicted of first-degree burglary and second-degree theft in Alaska in 1993.”

The agent’s affidavit alleges that “after taking an oath in Wyoming in 2009 that he had never been convicted of a felony ... Koch then voted three times in Park County between 2010 and 2012. Wyoming law forbids most felons from voting.” Koch, 38, “wasn’t quiet about his past. He incriminated himself on air,” it alleges. (**READ:** *The full story on trib.com* <<http://bit.ly/1124F8j>>. — KPC6PC)

“We have to let the legal system decide his fate,” Big Horn Radio Network General Manager Roger Gelder said. (**IN DEPTH:** *For more on KODI’s coverage, visit* <<http://bit.ly/1aU2o0C>>. — KPC6PC)

NPR Getting Heat for Its New ‘News Palace’

Here’s a bit of perspective for the next time the local National Public Radio affiliate extends its hand for money.

If you’re a regular listener, no doubt you’ve heard the Washington, D.C. staff has moved into new digs. Given NPR’s funding challenges, you’d think it would be downsizing. And you’d be *absolutely wrong*.

According to the *Washington Post*, the new radio facility has “soaring ceilings, a wellness center, a gym and a gourmet cafe with a chef.” Oh, and we assume some communications-related stuff, as well.

If you think a move like this would jumpstart the debate over federal funding for the non-profit, you’d be *absolutely correct!*

The *Post* story included this tweet from Jim Farley, WTOP VP of Operations in Washington: “They build a ‘News Palace’ and they still need taxpayer dollars?!” (**SEE:** *The Washington Post story on NPR at* <<http://wapo.st/10pm3kJ>>. — KPC6PC)

Ewwwwwwwwwwwwww

Quiet, Please <<http://www.quietplease.org>> aired on radio from June 1947 to June 1949, much of the time on the Mutual Broadcasting System. We can’t argue with those who say it was “among the most uniquely creative series in history.” To wit: the episode titled “Tanglefoot” in which a man takes a murderous giant fly as a pet. *Yuck!* (**LISTEN:** *To “Tanglefoot” at* <<http://bit.ly/17oUudp>>. — KPC6PC)

Communications News, Trends and Short Takes

Compiled by
Richard Fisher, KPC6PC

Rural Radio Launches on SiriusXM

Sirius XM Radio and *Rural Radio* announced in June the creation of a channel devoted to providing “a wide variety of programming for and about rural American life, the western lifestyle, and agribusiness interests,” according to *RadioInk.com*.

Rural Radio offers “news and weather, market reports, and shows, including a wide variety of original productions focused on agriculture, equine, hunting, fishing, western sports, and living the country life in small towns and on acreage,” weekdays on Sirius XM Channel 80, the report said. (*VISIT: Sirius XM at <http://www.siriusxm.com>*. – KPC6PC) (*Source: RadioInk.com*)

Calling It a ‘Haven of Waste,’ Greece Shuts Down ERT

The state broadcaster ERT in Greece has temporarily suspended all its radio and television channels, according to the BBC.

A government spokesman said transmissions were ordered to be ceased early on June 12. “ERT is a case of an exceptional lack of transparency and incredible extravagance,” government spokesman Simos Kedikoglou said, according to the AFP news agency. “This ends now.”

Greek government officials described ERT as a “haven of waste.”

(*READ: The BBC news story at <http://bbc.in/10pwF32>*. – KPC6PC)

Harrison Ford as Radio Amateur in ‘Paranoia’

At a theater near you is “Paranoia,” a movie thriller starring Harrison Ford as a technology billionaire who is, as well, a ham. Amateur radio has a small role, but a role nonetheless.

According to the *CQ Newsroom*, the movie is “about efforts by Harrison’s character and a rival businessman — played by Gary Oldman — to destroy each other, and the story centers on a young tech genius, played by Liam Hemsworth, who gets caught in the middle of their battle.” The film debuted in theaters August 16.

For more on radio in the movies, see Steven Handler, WPC6JXX’s, *COPS* column this month on page 30. And, “stay tuned for an article on the ham radio part of the ‘Paranoia’ story by Bob Schenck, N2OO, in the September issue of *CQ*,” Editor Rich Moseson, W2VU, said.

(*WATCH: The “Paranoia” trailer at <http://bit.ly/15NsSLM>*. – W2VU) (*Source: CQ Newsroom <http://www.CQNewsroom.blogspot.com>*)

Time for a PBS ‘NewsHour’ Makeover?

A National Association of Broadcasters *NAB SmartBrief* asks “Does (PBS) ‘NewsHour’ need to move with the times to survive?” Faced with major financial issues, PBS “may need to rethink its studio-interview format and beef up its online presence to remain relevant, according to employees and some outsiders.”

“NewsHour” is closing its Denver and San Francisco

bureaus and cutting 15 positions “to help close what’s said to be a \$7 million funding gap out of a \$28 million annual budget.”

According to *The New York Times*, a “NewsHour” spokesperson “defended the show’s format, saying it had already begun to bolster its digital presence and would continue to do so.” (*IN DEPTH: Read The New York Times story at <http://nyti.ms/11NDRXP>*. – KPC6PC)

CBS Sports Radio Signs Affiliate No. 300

In sports, where statistics are *everything*, CBS Radio Senior VP of Programming Chris Oliviero said that *CBS Sports Radio* “hitting the 300-affiliate mark in less than a year is a significant milestone and testament to the overwhelming love of, and support for, sports radio in this country.” *RadioInk.com* reported that, in conjunction with Cumulus, *CBS Sports Radio* “first launched sports content nationwide on September 4, 2012, and the 24-hour network began operation on January 2, 2013.” (*Source: RadioInk.com*)

DAB Radio Reports Available for Download

The Department for Culture, Media and Sport (DCMS) has released three reports relating to the Digital Audio Broadcasting (DAB) switchover in the United Kingdom.

- Go Digital trial: Measuring the impact of radio switchover on consumers
- Research study on energy consumption of digital radio, phase 3: Digital radio action plan report
- A report on the installation of in-vehicle digital radios

This and other data about DAB can be downloaded at <http://bit.ly/1aUJcE>. (*Source: Southgate ARC News*)

MW Broadcasts to Israel Resumed By BBC

The BBC World Service resumed medium-wave transmissions to Israel and other parts of the Middle East on June 7. Broadcasts were scheduled for 10 hours per day on 1323 kHz.

“This will give listeners breakfast listening and then drive-time and evening coverage from about 4 p.m. to 10 p.m.,” authorities said. Morning hours are 02:59:30 to 06:59:30 UTC, while the evening schedule is 12:59:30 to 18:59:30 UTC.

“We had a huge response to the end of MW transmissions in Israel and we are responding positively to listeners’ demands for a return of the BBC broadcasts,” said Steve Titherington, BBC World Service commissioning editor. “Cutbacks mean we can’t return to a full day-long schedule, but we will broadcast at times when we hope audiences are most likely to listen.”

(*READ: The full BBC statement at <http://bbc.in/11NMRw9>*. – KPC6PC) (*Source: Southgate ARC News*)

Capitol Hill And FCC Actions Affecting Communications

Compiled by
Richard Fisher,
KPC6PC

2 Alleged FM Pirates Nabbed in Florida

Federal authorities and local sheriff's deputies arrested two Florida men, alleging they were operating a pirate radio station at 97.7 FM, according to *Ocala.com*.

FCC agents determined the signal was coming from a mobile home in Summerfield, Florida with a radio tower behind it.

According to a story posted on *Ocala.com* <<http://bit.ly/13e4RBp>>:

Juan Ramon Nieves, 64, told authorities he was the owner of the unlicensed station, which had been in existence for about a year. He was charged with operating an unlicensed radio station.

Luis Alfredo Galindo, 41, told authorities he worked for Nieves and was charged with unauthorized transmissions or interfering with a radio station. Bond for each of the men was set at \$5,000.

"Federal officials said the station, if left unchecked, could cause interference with other radio stations and aircraft flying in the area ... They went to the property, where they saw a double-wide mobile home and a single-wide mobile home with a radio tower behind it.

"The station was playing Mexican music and advertising Hispanic businesses in the area," officials said. Photographs taken "inside the state-of-the-art station show a sign for "Fuego 97," the report noted. (Source: *Ocala.com*)

Fox: FCC Is 'Stuck in a Bygone Era'

Fox, in a filing with the Federal Communications Commission, urged the agency "to conclude it is legally required and logically bound to cease attempting broadcast indecency limits once and for all," it was reported in a National Association of Broadcasters NAB *SmartBrief*.

Fox asserted, as well, the FCC's "hodgepodge of inconsistent and uneven rulings" on indecency showed it was "stuck in a bygone era."

In a separate filing, a group of rights organizations led by Public Knowledge said "broadcasters have the same First Amendment rights as other speakers" and therefore "shouldn't be subject to indecency regulations." (Source: *TheWrap.com* <<http://bit.ly/14eRbnP>>, published reports)

Obama's Choice for FCC Chair is 'Specifically Trying Not to Be Specific'

President Obama's choice for FCC Chairman received a warm reception from the Senate Commerce Committee where Chairman John

Rockefeller admitted Thomas Wheeler's confirmation "is likely."

If confirmed, Wheeler said, his priority would be the highly-complicated TV airwaves auction, but not giving detailed answers about new media ownership rules, cross-ownership, and consolidation, according to published reports. "I am specifically trying not to be specific," he said. Wheeler did say, however, "competition is a power unto itself that must be encouraged." (Source: *Various publisher reports*)

\$2.25 Million Fine Proposed Against Texas Cable Operator

A small Houston cable TV operator faces a proposed \$2.25 million FCC fine for alleged transmission of broadcast signals without permission, the *Los Angeles Times* has reported.

TV Max Inc., "provides cable TV services to multiple dwelling units in Houston. Such companies are known in the industry as Single Master Antenna Television operators. As part of its service it was carrying local broadcast stations, including outlets owned by ABC, Fox and Univision," the Times story said.

Typically, SMATV operators provide pay TV to hotels or apartment complexes and usually have a headend at the facility to distribute the signal, the Times said. "But TV Max did not have a headend where it was providing service and hadn't negotiated deals with the TV stations." (IN DEPTH: *What is a cable television headend? See* <<http://bit.ly/12vngmT>>. - KPC6PC) (Source: *LA Times* <<http://lat.ms/12vnAC9>>)

FCC Order Calls for \$485 Million for Broadband Expansion

An order approving the outlay of potentially \$485 million for rural broadband expansion in the United States was part of an FCC item in the *Federal Register* in June.

(IN DEPTH: *See Connect America Fund, FCC, No. WC Docket No. 10-90, 05/22/13 at* <<http://fcc.us/13eelqO>>. - KPC6PC)

"Under the action, the FCC will provide \$300 million for the second part of what is known as "Phase I" of the agency's Connect America Fund," according to a report on *Bloomberg BNA*. "If demand from telecommunications carriers exceeds that amount, the agency will then allocate \$185 million left over from the first part of Phase I. Any remaining funds will then be set aside for a Phase II." (READ: *The Bloomberg BNA story at* <<http://bit.ly/13cvFmO>>. - KPC6PC)

A Trio of Updates: 4K, 3-D, and Low-Power Radio

By Rob de Santos, K8RKD
 email: <commhorizons@gmail.com>
 Twitter: <@shuttleman58>

“Digital TV Revolution Road has had a few bumps develop in it over the last year. But all of the TV news isn’t bad. Here is some of the latest information.”

The digital revolution in television has continued over the past year but not without a bump or two in the road. The very first 4K TVs have appeared, but 3-D hasn’t fared so well.

When I last wrote about TV technology, it was still unclear where 3-D TV was going. Unfortunately for the TV producers, interest in 3-D viewing in the home has not grown in the same way it has in the theaters. Recently, the ESPN networks announced they would shut down their 3-D network, as ratings were disappointing. This was reported in many outlets as meaning 3-D TV has failed.

The good news is that the technology is improving but no consensus solution to the primary drawback of the technology for consumers has appeared. People dislike having to wear the expensive and manufacturer-specific special glasses to view programs in 3-D. Glassless technology has not moved quick enough to dispel this concern. Many solutions are in the works but without one, or at most *two* common solutions, it won’t take hold in the marketplace.

Three-dimensional programs cost considerably more to make than two-dimensional programs, thus the major broadcast and cable networks have been slow to adopt the technology. As a result, even for viewers who like it in spite of the glasses, the viewing options have been few. Most owners of 3-D-capable televisions rarely use the feature. It’s your typical new technology *chicken and egg* issue: viewers won’t buy TVs to see it if selection is limited and producers won’t make programs in 3-D if there aren’t viewers.

My crystal ball suggests that 3-D is not dead but probably will remain a niche technology for a while longer. The best guess is that as long as manufacturers continue to include it in higher-end televisions, the technology has a chance. Further, the movie industry continues to make movies in 3-D and they are successful at the box office — so 3-D is not dead, just in limbo for now.

Where is TV technology going? Without question, the next thing is “4K” followed by “8K.” — these represent doubling and quadrupling of the pixel count from the current 1080 HD technology. The quality of the picture goes up, though at present most viewers would have a hard time differentiating a good HD set from a 4K set unless the screen is at least 70 inches in size. (NOTE: It’s worth pointing out that this is

an improvement of a factor of two in less than 18 months. — K8RKD).

For now, 4K TVs are at the extreme top end of the market only, and only a handful of programs are being produced in 4K. The biggest obstacle to adoption in the near term is that the television “infrastructure” — those tools needed to produce, process, and distribute 4K programs — aren’t in place yet. You can record in 4K but the TV production truck can’t send it downstream in 4K just yet. That will change within the next couple of years.

Turning our attention to radio for a moment, there was an important milestone in the future of FM radio in the U.S. announced recently by the FCC. The Commission released the dates for the application window for low-power FM stations. Beginning on October 15 — next month — interested groups will have two weeks to get an application into the FCC for any available frequencies in their community. The process approved by Congress and driven by the community radio movement will get its best chance to get on the air in decades. It may well be decades before another opportunity such as this comes again.

As many readers of *Popular Communications* would count themselves as radio aficionados, this is a chance for us to make a difference, too. Many of the groups (including in your community) will be applying but have little experience in radio. I’ve often heard complaints that the FM radio band sounds the same anywhere you go in the U.S. While that isn’t completely true, we have an opportunity to change that a little by helping out.

Readers who are looking for a way to share their enthusiasm for communications, and their expertise, should consider offering to volunteer with local applicants. For many, your background will be valuable whether it is in the application process — or later if they are successful — in areas such as the studio, transmitting, maintenance, and safe operations. You know about safe operating procedure, so step up!

What better way to show how exciting our hobby is than to show new broadcasters how we can help.

As always, I look forward to your thoughts, ideas, criticisms, and column ideas. You can contact me via the U.S. Postal Service, in care of Pop’Comm; email; and more. I look forward to hearing from you.

— K8RKD

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Same Mission, Different Era: Remembering the National Security Agency, Circa 1961

The NSA's Sprawling Teufelsberg Listening Station
Put the 'Cold' in War

By R.B. Sturtevant, WPC7RBS/AD7IL

Photo A. Since its abandonment in the early 1990s, the NSA Cold War listening post on Teufelsberg in Berlin has become a tourist site frequently visited by graffiti artists. (Photography courtesy of Parkinpants via Wikimedia Commons)

Depending on what you were reading on the Web, listening to on the radio, or to which network your TV was tuned, breaking news in June about the National Security Agency either startled you or left you wondering “*what’s so new about this?*”

The reveal was that “PRISM,” as the data gathering program was known, had been keeping tabs on millions of Americans’ phone numbers since 2007. It was developed in the wake of 9/11 and lots of U.S. citizens — not to mention members of Congress — bristled at the thought of its alleged invasion of privacy.

NSA and its sister agency, the Central Security Service, have a lofty and long-winded mission statement that boils down to this: their job is to listen to stuff.

But anyone who thinks the NSA national-security mission is a recent manifestation would be wrong. The agency’s history stretches several eras and across many miles.

“Teufelsberg became a location for every type of monitoring equipment the Army Security Agency and its British counterparts had, or would hear of.”

Exhibit A could well be Teufelsberg, a.k.a. *Devil’s Mountain*, in Berlin, Germany — or as it was officially known a half-century ago: Field Station Berlin, Site 3. *An NSA spy station of epic proportion.*

Teufelsberg’s Checkered History

By and large, monitoring Soviet conversations at Teufelsberg didn’t produce the excitement of a spy movie. Overall, it was routine, according to former staff members. But when bits of information were pieced together and analyzed, it gave the British and Americans a clear picture of what was happening in a divided Berlin — on *the other side* of the barbed wire.

First implemented in 1961 by mobile units, more permanent NSA spy facilities on Teufelsberg were set up beginning in 1963. (**NOTE:** We say “on Teufelsberg” for good reason, as you’ll see. — WPC7RBS)

The history of the site, however, goes back many decades before the ’60s.

It all started under pre-World War II Adolph Hitler when he assigned Albert Speer, his chief architect, to beautify Berlin. One of the Nazi building projects was to be a military-technical college to train future Nazis.



Photo B. Structures from the 1960s National Security Agency's sprawling listening post have an unobstructed view of Berlin on Teufelsberg, German for Devil's Mountain.

Construction began in 1937, but due to wartime priorities, was never finished. When the Allies came to town in 1945, it was decided to destroy this Nazi building to prevent it from becoming a shrine.

Blowing up the structure, however, turned out to be impractical. So the site became a dumping ground for bombing rubble left from the 400,000+ buildings destroyed in the area during the war. Originally on a plain, the rubble pile eventually reached 375 feet high, as 600 trucks deposited 8,900 cubic yards of rubble on it *every day*.

The debris was collected by "rubble women" doing one of the few jobs a civilian could get at that time in post-war Germany. In the end it was estimated that the mountain included 34 million cubic yards of debris which ultimately made it the highest point in Berlin.

Meanwhile, mobile radio stations drove around the American and British sectors of the city trying to get a fix on Soviet radio traffic from East Berlin. Ultimately, it became apparent that the top of the Teufelsberg rubble pile was the best spot to monitor the growing tension between the East and West in the early 1960s.

(HISTORY: It might be suggested that Teufelsberg was where the Cold War got serious. – WPC7RBS)



Photo C. Today, much of the abandoned NSA listening post on Teufelsberg is in shambles, posing real danger to those curious visitors who come to the site.

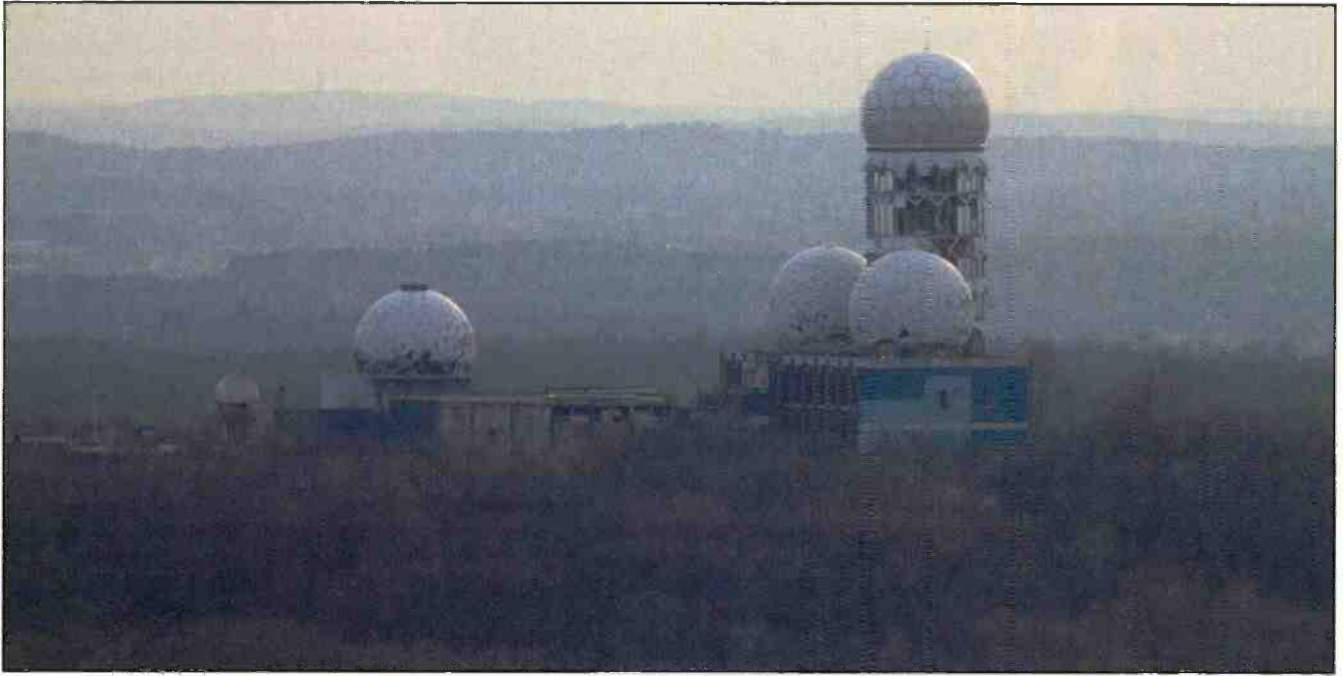


Photo D. Radomes, thought to house RADAR equipment, were in reality outfitted with microwave dish antennas.

“Reunification was 1990. From what I understand, the Americans listened in for another year, just to make sure everything was straight,” recalled Christopher McLarren in an interview on Public Radio International’s “The Big Show,” <http://bit.ly/19utHAW>. **Photo F.** “And then they dismantled the place, so I think

operations finished in 1991 or 1992.” He had served on Teufelsberg in the 1970s.

What Teufelsberg Was, and Was Not

This British and American listening post in Berlin was never a RADAR site

— that was done elsewhere. The radomes on top of the towers actually contained 40-foot microwave dish antennas.

Teufelsberg became a location for every type of monitoring equipment the Army Security Agency and its British counterparts had, *or would hear of*. It was



Photo E. A makeshift lounging area is just part of the scene where NSA listening operations took place — focusing on activities of the Eastern Bloc of the Soviet Union.

Environment | China's growing vegetarian community now larger than in U.S.

Cold War linguists: NSA spies in Teufelsberg kept ear on Soviets

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Published 20 June, 2013 03:00:00 PRIs The World

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The old U.S. listening station at Teufelsberg, Berlin, which stands to this day, was a key location for American monitoring of Soviet and Warsaw pact communications (Photo by Axel Mauruszat via Wikimedia Commons)

At the height of the Cold War, a small group of Army personnel monitored communications in Soviet-controlled East Berlin. They'd send the recordings back to NSA headquarters in Washington and — in many ways, are the precursors to the modern surveillance system that has become so controversial.

00:00 | 10:33
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Photo F. Public Radio International's "The Big Show" devoted an episode to the NSA listening station on Teufelsberg. (**LISTEN:** To the PRI podcast at <<http://bit.ly/19utHAW>> – WPC7RBS) (Internet screen grab)

possible, when propagation was right, to hear Moscow taxi drivers chatting on their radios.

Rumor had it that secretly-planted bugs around Berlin could be monitored by the receivers on Teufelsberg. Certainly anything happening on military channels in the Eastern Bloc was swept up, recorded and sent on for analysis.

Teufelsberg was the largest and most complete radio intercept site in the world. It became one of the founding sites for Project Echelon, which is still listening today. Operators sometimes heard that Soviet artillery had their cross-hairs on Teufelsberg. Fortunately, such an attack never materialized.

A lot of the time, Teufelsberg receivers were tuned to agricultural reports and "the bad crop of potatoes." The operators would just let the tape recorders run and check out the rock 'n' roll on Radio Luxembourg using other equipment.

A Strange Intercept, Indeed

One day, Teufelsberg operators overheard traffic about Walter Ulbricht, then the leader of East Germany. *This could be very important.*

According to Don Cooper, another Teufelsberg worker, also interviewed by PRI, they listened as "Uncle Walter's" second in command arranged a hunting trip for Ulbricht in northern Germany. They wanted *the big shot* — so to speak — to get his deer, so they arranged to drug the poor animal. When it staggered out of the brush "Uncle Walter" took his shot. A military sniper with a silencer was standing by to make sure of the kill. Ulbricht got his deer.

The NSA: Today and Yesterday

While pundits wrestle with the propriety of NSA's actions since 2007, it is clear the agency's role in Cold War intelligence was important and remarkable. Monitoring seemingly mundane conversations hour-after-hour provided pieces of a puzzle that, no doubt, contributed significantly to the security of the United States.

It is ironic that the most sophisticated listening station of its time would be built atop a mountain of remnants of war — just the kind of ruin the National Security Agency was trying to prevent from happening again.

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Double Your Pleasure: Variations on a Dipole

By Gordon West, WB6NOA/WPC6NOA



Gordo flies a dipole feed point up high on the blue mast and brings down each side at about a 45-degree angle for omnidirectional coverage. His best 10-meter DX is the Ukraine! (**NOTE:** The feed point is next to the pink pig, of course. – WPC6NOA)

In a hobby where antenna size certainly matters, shortwave listeners and ham radio operators: don't sell the half-wave dipole short! It is a fabulously performing antenna system that, when properly put together, has *almost no loss*.

And yes, if you do the calculations for a half-wave dipole, down here on Earth, it is, indeed, *a tad short!*

Thinking Caps, Please

Since September is back-to-school time, let's get intellectual and take a look at the formulas for computing the end-to-end length of a half-wave dipole.

First, for a half wavelength dipole in *free space*, the formula is: $L_F = 492/f\text{MHz}$, where:

- L_F is length in feet
- fMHz is frequency in megahertz

So, next time you're in Earth orbit and stepping outside the space station to put up, say, a 40-meter, half-wave dipole for the center of the band, you'll be crunching: $492/7.150\text{ MHz}$, which works out to 68.81 feet. Divide that by two to determine the length of each side of the dipole from center. (**HINT:** It's 34.405 feet. – WB6NOA)

Back to Terra Firma

Since in all likelihood we're not going to put this dipole in *free space*, but instead between two pine trees in the backyard,

"Don't sell the half-wave dipole short! It is a fabulously performing antenna system for the SWL or ham — and has almost no loss."

we use the following formula for the end-to-end length of a half-wave dipole:

$$L_F = 468/f\text{MHz}$$

(**JUST A THOUGHT:** Let's call this calculation for "tree space" as opposed to "free space." No, that's a bad idea. But I couldn't resist the wordplay! – WPC6NOA)

So, again, for the middle of 40 meters, it's $468/7.150\text{ MHz}$, which works out to an L_F of 65.45 feet, or 32.73 feet per side of center.

The Magic and Logic of '468'

Hmmmmmm, so where does this "468" come from? Good question!

We use 468 so our dipole length comes out in feet, which is more easily measured with your handy tape measure. It's much easier than if we tried to work with meters of wavelength.

The "468" compensates, as well, for:

- Radio waves that travel slightly *slower* in a piece of copper wire than in free space.
- A capacitive effect that influences the end-to-end length of the half-wave dipole, mounted close to Earth.



The dipole had guest operators filling up the log quickly, with 5-by-9 signal reports on almost every call.

Since our calculations will result in feet and *fractions of a foot*, you can multiply the fractions of a foot by 12, and magically, the numbers after the decimal point will now result in inches — all the more easy to read with that tape measure.

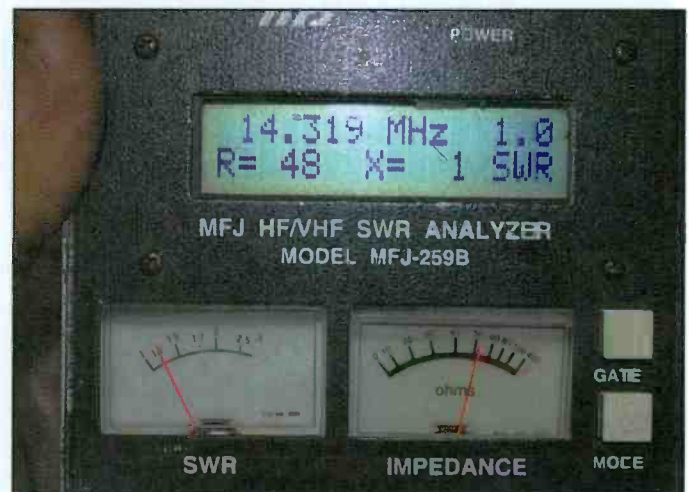
For example, we've determined that in our model, each side of the Earth-bound half-wave dipole is 32.73 feet. We know that 0.73 feet is very close to 0.75 feet, or three-quarters of a foot. So, $0.75 \times 12 = 9$ inches. *Easy!*

Applications for the SWLer and Radio Amateur

For shortwave listeners, a dipole that resonates on 30 meters — the 10-MHz band — will work quite nicely on shortwave bands both lower and higher in wavelength.

For ham radio operators, pick the band on which you plan to use the dipole without using a tuner. Here are some choices and dipole end-to-end lengths in feet and inches:

- 10 meters: 16 feet, 9 inches, (8 feet, 4.5 inches per side)
- 15 meters: 22 feet, 3 inches, (11 feet, 1.5 inches per side)
- 20 meters: 33 feet, 1 inch, (16 feet, 6 inches per side)
- 30 meters shortwave: 46 feet, 4 inches (23 feet, 2 inches per side)
- 40 meters: 65 feet, 5 inches, (32 feet, 9 inches per side)
- 80 meters: 120 feet, 0 inches, (60 feet, 0 inches per side)
- 160 meters: 253 feet, 0 inches, (126 feet, 6 inches per side)



Using an MFJ Enterprises Antenna Analyzer <<http://www.MFJEnterprises.com>>, the SWR on this dipole looks *great*, and it hears and talks *great*, too! Not bad for a total cost of \$5.

With a Technician Class license, you have voice privileges on the 10-meter band, so use your existing CB antenna for \$0, or make a 10-meter, half-wave dipole that is 16 feet 9 inches long overall. That is 8 feet, 4.5 inches per side.

Attaching a Feed Line

Coaxial cable — 50 ohm — is attached to each side of the separated center of the dipole. One side of the dipole is attached

to the coax's shield braid, while the other side goes to the coax center conductor.

What you've done is to take the full length of the half-wave-long wire and snipped it in the middle to make your dipole. Then make your connections to each side.

What Coax to Use? How to Use It?

RG-58AU and RG-8X are easy-to-handle coax sizes. For high-frequency operation, you won't need the heavy RG-8U coax.



Wrap about five turns of coax in a spiral around two fingers to form a decoupling network — a balun — at the feed point on your dipole.



CAUTION! Always watch out for overhead *live* wires! If the dipole's wires were to come in contact with the upper two wires on this pole, electrocution would follow — a fatal accident.

Where the center conductor and braid connect to the dipole's "left and right" quarter-wave sections, solder each side to the coax, and make sure the coax cable isn't "shorted" when you test it with an ohm meter.

Now, to keep all of your energy up in the dipole element, wrap five turns of coax around two fingers, creating the effect of an RF "choke." This takes the place of having to buy a balun to get started.

It's an Antenna-Raising Party!

For the best impedance match between your newly-created dipole from a spool of electrical wire you bagged at Grandad's house, try to get the center feed point hoisted up as high as possible, so the dangling sides of the dipole wires are within reach. Get your family and friends to help. *Make it a party!*

Next, attach some Dacron® *non-conductive* line to each of the dangling wires, and spread them apart to about 45 degrees from straight down. This turns your dipole into a "drooping dipole," and improves both the impedance match to your coax, as well as creating a nice radiation pattern off the ends. You don't need a lot of tension on the sides of the "drooping dipole" wires.

A Bit of Fine Tuning

OK, you got the dipole feed point *way up* in the pine tree. The dipole's left and right wires are covered with insulation, so you're not going to torch the neighborhood. And the wire sides — with some *non-conductive* Dacron® line attached to the free



Another version of the dipole is a folded dipole — designed for broadband coverage on multiple bands. (**IN DEPTH:** For drawings of the folded dipole, visit <<http://bit.ly/148ASJa>>. — WPC6NOA)



It's good to measure your dipole down to fractions of an inch for accuracy, but you don't need to go into millimeters to get high efficiency.

ends — are fanned out at a 45-degree angle below the center feed point.

(NOTE: At this point, the SWLers are dismissed from class. Drive carefully and happy listening! – WPC6NOA)

The radio amateurs are *almost* finished. You will likely need to do some “trimming.” The lengths in the list of bands have a bit of wiggle room factored in. This gives you the opportunity to shorten the finished product for perfect resonance.

Wait! Don't *cut* the wires to raise the resonant frequency. Rather, *bend them back* on themselves. What's the impact? Well, on:

- 10 meters, bending back merely 1 inch moves your resonant frequency up 300 kHz
- 15 meters, 2 inches moves you 300 kHz
- 20 meters, 5 inches moves you 300 kHz
- 40 meters, 1 *foot* moves you 250 kHz
- 80 meters, 5 feet moves you 300 kHz

To raise the resonant frequency of the dipole, bend the wires back on themselves by these measurements. To lower the resonant frequencies, you will need to *add* these suggested wire lengths.

Again, for shortwave reception, a few inches won't make a big difference. But for amateur radio operation, today's solid-state transceivers require precise dipole tuning.

Gordo's Factos, Part I:

- Running the covered wire “left and right legs” through tree branches always “stretch” your dipole a little. That's good. It's much easier to fold the wire lengths back than messing around trying to solder on more wire.
- The well-constructed dipole is unity gain when each end is drooping. If the dipole is absolutely horizontal, you have about 2-dB gain over an isotropic antenna, with best reception lobes to the broad side of the dipole. When you droop the ends of the dipole wires, you now create transmission and reception off the ends, as well.
- A dipole wire size of 14 gauge is good. Even 16 gauge will work, but 18 gauge will begin to stretch, and on a hot day you find your resonant frequency going down!

- Skywave propagation is just as effective with horizontal polarization, like the dipole, as it is with vertical polarization, such as a CB white fiberglass half-wave “Big Stick™”.

Popular amateur radio variations of a dipole may include off-center feeding of the dipole, with one side 2/3, and the other side 1/3 wavelength. What is “magic” about these off-center-fed dipoles is that they become self-resonant on many of the popular high frequency ham radio bands with no need to climb a tree to change any of the wire-tap points.

So the off-center-fed dipoles require some special current baluns to bring 300 ohms down to around 50 ohms. If you were to buy the baluns all by themselves, you might as well get the fully-assembled, off-center-fed antenna from RadioWavz <<http://www.radiowavz.com>> or other leading dipole manufacturers. They are available for under \$100.

Seek the Homebrewer in You

For less than \$10, though, you can *make your own* single-band dipole, feeding it in the center (don't forget to snip it) with common coax making up the feed point match. In fact, you can achieve both 15- and 40-meter resonance by constructing a 40-meter dipole, and letting your transceiver's built-in automatic antenna tuner work it on 15 meters as well!

Gordo's Factos, Part II

Antenna tuners built into modern ham radio transceivers are not intended for random length dipole matching. Your dipole needs to be somewhat resonant on the band before you hit the automatic tune button.

If your transceiver's tuner has to *hunt and hunt and hunt* for it, your SWR is *wacko* and it's time to get out there and see what's happening with the antenna.

Get On the Air!

If you build a half-wave dipole right down to the exact foot and inch measurements listed in this column, you won't need a tuner at all. Just get the feed point up high, and enjoy the DX when the high frequency band is open.

MONITOR OF THE MONTH

Listening, Around the World

GPC3L, Hendon, London, England

Laurie Margolis Named 'Pop'Comm Monitor of Distinction'

A block of Pop'Comm Monitoring Station identification signs has been set aside for listeners who through their skill and diligence have contributed significantly to the monitoring community. CQ Communications Publisher Dick Ross, WPC2A, and the late Pop'Comm Founding Editor Tom Kneitel, WPC4A, were issued the first 3 X 1 ID signs from this block.

This month, we add Laurie Margolis, GPC3L.

Pop'Comm Editor Richard Fisher, KPC6PC, and CQ Editor Rich Moseson, WPC2RIY, have jointly announced that the longtime BBC reporter, radio amateur, and CQ contributor has been named a Pop'Comm Monitor of Distinction for the remarkable communications skills he demonstrated during the 1982 Falklands invasion. (NOTE: GP3L is a 2013 Inductee into the CQ Amateur Radio Hall of Fame.)

"After more than 30 years, we look back in awe of Laurie's achievements as the first — and only — reporter to confirm the Argentines' occupation, and how he so skillfully used shortwave radio to gather information that even the British government had been unable to obtain," they said. "As such, we are honored to grant Laurie monitoring station identification sign GPC3L."

As September's Pop'Comm Monitor of the Month, in his own words, Margolis describes the events of April 2, 1982, as spoken in a BBC video posted in December 2012. Accompanying photographs illustrate GPC3L's contributions to amateur radio and shortwave listening.

By Laurie Margolis,
GPC3L

From a BBC video posted
December 28, 2012
<<http://bbc.in/14zz9f0>>

*"We look back in
awe of Laurie's
achievements ...
and how he so
skillfully used
shortwave radio to
gather information
on the start of the
Falklands War."*

We are here in the west end [of London] opposite Broadcasting House, **Photo A**. And let me explain why we're here.

Up behind me is a building, which is now the Langham Hotel. It's a very expensive hotel. But at the time — this is April 1982 — it was a rather dreary BBC office building. But up on the top, where you're looking now, there was an amateur radio station. Now, I am a radio amateur with the callsign G3UML.

On the second of April 1982 I'd [just returned from] assignment to the Middle East. I came into work and was met with scenes of near panic, because the Argentines at 9:30 in the morning our time had claimed to have invaded the Falklands. And other than a rather laconic message from cable and wireless saying we have *new friends*, there was no indication whatsoever from the islands.

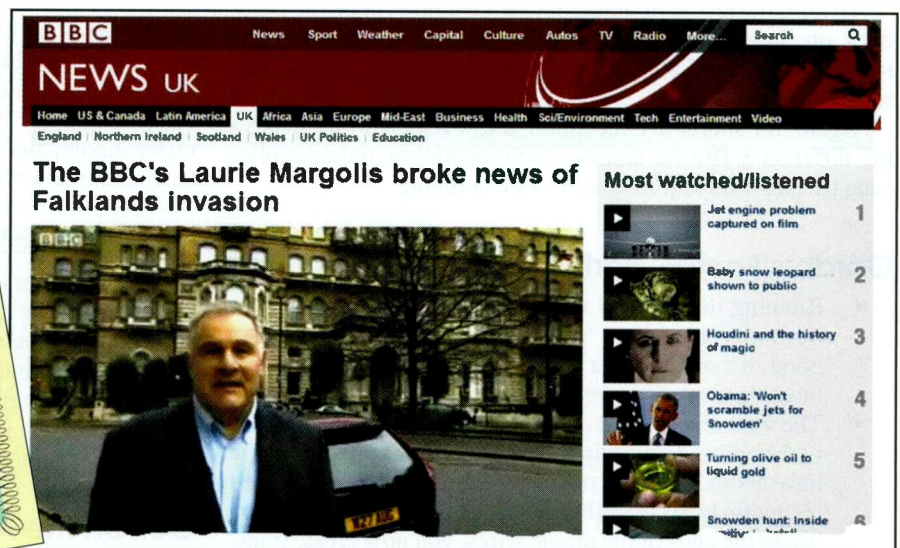
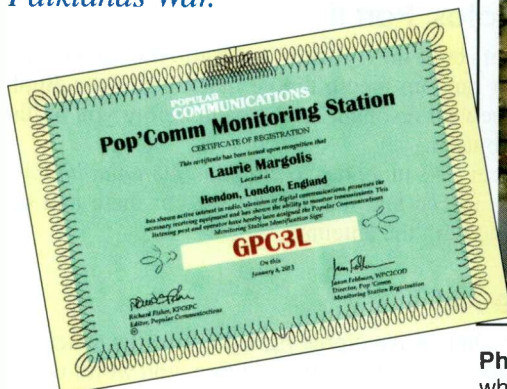


Photo A. Laurie Margolis, GPC3L/G3UML, describes the events of April 2, 1982, when he was the first reporter to confirm the invasion of the Falkland Islands by Argentina — information gathered via shortwave radio. (**WATCH:** The BBC video at <<http://bbc.in/14zz9f0>>. — KPC6PC) (Internet screen grab)



Photo B. G3UML's contact in the Falklands, Bob McLeod, VP8LP, was in Goose Green at the time, circled here in red, about 50 miles outside of Port Stanley. (Courtesy of Wikimedia Commons)

We had no confirmation. No news. There were no phones. No Internet. Nothing in those days.

I was asked to go and try and use the amateur radio station, which is up in the building there to contact the Falklands. I went up there and listened around for most of the afternoon.

At mid-afternoon I heard a familiar voice — a fairly distinctive Falklands accent with a sort of west-country burr to it. And I realized this was a guy I'd spoken to a couple of times, over the years, called Bob McLeod [VP8LP <<http://www.QRZ.com/db/VP8LP>>].

He was a plumber in Goose Green, **Photo B**, about 50 miles outside of Port Stanley. I spoke to him and he said, "Laurie, why is the BBC saying there has been no invasion?" He said, "there is an Argentine aircraft carrier in the bay. There are Argentine troops all over town. The governor and marines have been taken prisoner ... broadcast stations are speaking in Spanish, and basically, it's all over. We've been invaded by the Argentinians."

I then went on Radio 4 on the PM program — there was no continuous news in those days — with this story; was then rung shortly afterwards by somebody I thought was from the foreign office, but I think may have been an intelligence

officer, to ask what I knew, and I told him what I knew — that *it was all over*.

And about 50 minutes later, Lord [Peter] Carrington stood up as Foreign Secretary in the House of Lords and announced that the invasion had happened.

Now, what has really amazed me about these papers which have come out today

[under the British government's 30-year release rule] is how crucial that information I gave them was.

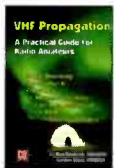
First of all, to be honest, I'd forgotten how much detail there was there. Thank heavens it was right. And it really was the basis for pretty much everything they knew in those first hours.

It was the only intelligence; it was the



Photo C. The British Navy ship HMS Invincible is greeted upon its victorious return to England from the Falklands War. (Courtesy of Wikimedia Commons)

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Photo D. A young Laurie Margolis, G3UML, was not only a frequent contributor to CQ magazine, but was featured occasionally in stories highlighting his operating skills. (Courtesy of CQ)



Ham Friendships, Ham Hospitality... How Sweet They Are!

BY EDMUN B. RICHMOND,* W4YO

In August of 2010, my wife Toni, WA4XYL, and I flew to London for a 15-day stay in that great city by the Thames. Before leaving, I had been in contact with two amateurs with whom I have had innumerable QSOs over the years, and I told them of our upcoming trip. I have known Roger Brown, G3LQP, since the early 1980s and had visited with him on several occasions. The other was Laurie Margolis, G3UML, whom I had contacted several times both here and during many of my African DXpeditions,¹ but never met.

Both of these hams have extensive DX backgrounds. Laurie was first licensed in 1965 at the age of 15, and was an SWL for eight years before that. Yes, he actually started his interest in radio at seven years of age! Laurie grew up surrounded by, and immersed in, amateur radio. His father, Maurice, was G3NMR (SV) and his mother,



G3UML in his ham shack. Like many of us today, Laurie has to make do with limited antennas, but still manages to work plenty of DX.

Photo E. G3UML was prominently pictured in a CQ story by Edmund B. Richmond, W4YO, who points out that Laurie Margolis was first licensed as a radio amateur at age 15 in 1965 and had been a shortwave listener for eight years before that. (Courtesy of CQ)

Photo F. Laurie is the son of the late Sylvia Margolis, for many years a humor columnist for CQ, and the late Maurice Margolis, G3NMR. Laurie is a 2013 inductee into the CQ Amateur Radio Hall of Fame, joining his mother, who was inducted in 2011. (Courtesy of CQ)



only hard information. The chap I was speaking to, Bob McLeod, was not in Port Stanley — he was 50 miles away — but they had a very good VHF link up around the islands and his information was good. As it turned out, it was spot on. And that is how the day developed, **Photo C**.

(NOTE: Photos D through H provide snapshots of GPC3L's longtime involvement and contributions to hobby communications. — KPC6PC)

Let's Clear the Air About Rockall!

BY LAURIE MARGOLIS, G3UML

How many rare islands have you worked recently? With the help of various DX positions, you have probably got quite a few peculiar call signs into your logbook. And no doubt names like Desventuradas, Maria Theresa, Amaranke and Manihiki roll off your tongue as easy as Fifth Avenue, the Golden Gate and Winston-Salem. Sure, I know all about it. It's a thousand miles south of Tokyo and you QSL via WBXYZ. Yeah, and if someone told you that the natives had green hair, you'd know even more. But seriously, how much do you know about a fair number of the places you blithely QSO? The purpose of this article is to tell about one of these "countries," over which lately the rumors have been flowing thick and fast and the hot air has been vented in abundance. Incidentally, if you have this one already worked and confirmed, you must be a very remarkable person with a vivid imagination.


Rockall is an isolated rock in the north-eastern Atlantic Ocean. Its position is East 37° 36' N., Long 13° 40' W. It lies about 300 miles west of the most westerly Scottish mainland and has a similar distance north-west of the Irish coast. It is 65 feet high, 83 feet across and has a circumference of about 230 feet. It is geographically

unusual because it is not part of any of the continents as we know them today. It is separated from the European Continental Shelf by a very deep trench and is one of the few remains of the ancient continent called Arctica. It is thought to have been formed around 40 million years ago. At this time an immense plateau was evolved through volcanic activity. This plateau is still in evidence as the Rockall Bank and lies about 100-200 fathoms below sea level, as opposed to the deeps, which are some 800 fathoms further down. Rockall is the remains of a mountain, now almost completely submerged. A few hundred yards north-east of it there is another submerged mountain, which rises about 3 feet above water and about 1 1/2 miles further away in the same direction is situated a reef (the crum of several wrecks) which only occasionally is visible above the surface. These are named Haselwood Rock (after the master of the ship that found it in 1812) and Helen's Reef (after a large liner that sank there in 1910).

Rockall is composed principally of types of granite and also magnetite. The latter causes it to be highly magnetic and it appears to be the reason for a magnetic anomaly a little way from the rock. The granite, now known as Rockallite, is of interest to geologists because it contains unusually large amounts of sodium and other minerals. The built-in magnetism might possibly do interesting things to any r.f. emanating from there.

Those are the dry facts about Rockall. Now let's put it into slightly more human terms. 65 feet high—the chances are your beam is a lot higher, 230 feet circumference—a car doing 60

From the west, on an overcast day.



64 • CQ • May, 1967

Photo G. An example of G3UML's contributions to CQ magazine is this May 1967 piece he wrote about a little-known island called Rockall — about 1,000 miles south of Tokyo. (Courtesy of CQ)



Photo H. A world traveler, GPC3L, right, is pictured here during a trip to Turkey. (Courtesy of CQ)

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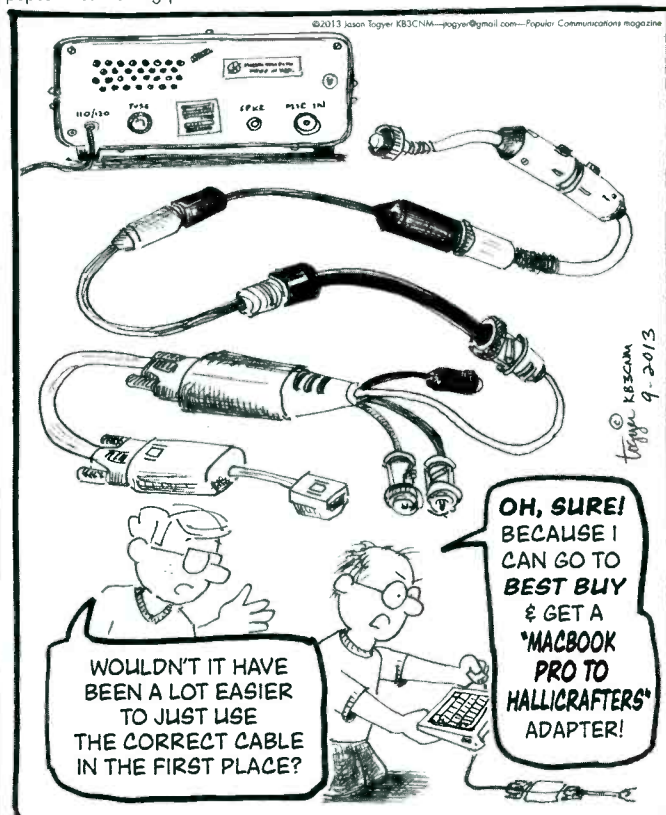
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SPURIOUS SIGNALS

By Jason Togyer KB3CNM

popcommcomic.blogspot.com



'Frustrated in Pennsylvania' Is Wondering 'What's Next?'

Compiled by
Richard Fisher, KPC6PC

A recent email to the *Pop'Comm Monitoring Station* program really got our attention. It is from an SWLer in Pennsylvania who is having a rough go of getting into hobby communications. It seems at every turn he's running into hurdles that are taking all the fun out of what should be an exciting and rewarding pursuit.

Arrrgggghhhh . . .

Here's how our writer describes what's been bugging him:

I have been reading with great interest all the talk about shortwave dying as broadcast stations and facilities disappear. I, now, am starting to believe this as time goes by and I spend more time on the airwaves listening.

I started back in SWLing in November 2012. I did listen causally as a kid, though, in the late '50s and early '60s.

I fed my new interest in the hobby by buying a portable Tecsun PL-660, **Photo A**, and put up a random straight-wire antenna. Wanting to hear more as I read other listeners' logs, I bought an RF Space IQ SDR and an all-band Super Sloper Tuned SWL Antenna to improve my reception.

I started pulling in Radio Russia, the Mighty KBC, Radio Taiwan, BBC, Radio Serbia, Radio Turkey, CRI, and others. Once IDing these stations and more I sort of have become "bored"—if that is the right word — with what is left to listen to.

Photo A. The TecSun PL-660 is a portable LW/MW/FM/SW/AIR receiver that is popular among monitoring enthusiasts. Its dual-conversion circuitry will copy upper and lower SSB in addition to its AM-FM capabilities. (*Internet screen grab*)

I have been QSLing the stations I have ID'd and so far I have been getting a 50 percent return rate, which I have read is good. I like waiting for the mail to come in and see if I have a reply. My first reply was from Radio Romania. What a treat for me, the newcomer.

On a recent evening after identifying the foreign stations, most that were left were religious broadcasters. I counted about 10 before I gave up and tuned to the radio amateur SSB bands. I listened to several hams talking, and there was a contest going on. Frankly, I gave up around 1 a.m., local time.

The problem is this: *what is next?* Do I make the jump to amateur radio and invest a grand or two on halfway decent equipment, just to:

- Listen to old timers tell stories about the past
- Get involved in contesting, where I have heard the person receiving the stations recently say "just name and callsign, please, and you will get a QSL card." Seems pretty impersonal and fleeting.
- Try and chase down an elusive station I hear but cannot quite get tuned in?

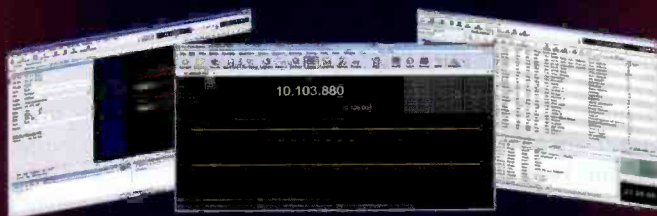
What will it cost to do that? New antenna, more powerful receiver? What happens after that?

I am 61 years old looking forward to retirement in a few years, hopefully! I know



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I am a late bloomer in this hobby and I have an awful lot to learn.

I ask questions such as what the meaning of "non" means in the report of a certain monitoring guru. About a month ago I emailed his "excellency" and got the answer along with a little bit of a tongue lashing for not being able to figure it out for myself. OK, so I am dumb.

I joined NASWA — the North American Shortwave Association. I am signed up for Hardcore DX daily reports. I subscribe to *Popular Communications* and *Monitoring Times*. I listen to "WOR Reports" weekly. I have several books, including the *2012 World Radio-TV Handbook*, *Listening to Short Wave: A Beginner's Guide*, and others. But I am frustrated.

Here is my wish list:

I wish when I ask questions I get an answer that doesn't make me feel stupid. Or just get an answer, period.

I wish I knew if it will be worth getting my amateur radio license and spending the money on equipment.

I wish the two previous wishes would be granted.

— Frustrated in Pennsylvania

How Can We Help?

Pop'Comm has some of the smartest readers on the planet. What advice and suggestions do you have to help "Frustrated" find the pleasure in monitoring experience most in our community seem to enjoy?

Please send your ideas to <editor@popular-communications.com>. We'll share your thoughts with the *Pop'Comm Monitoring Station* community in an upcoming edition. Thanks in advance.

— Richard Fisher, KPC6PC

New Members: *Pop'Comm Monitoring Station Community*

Here are the newest monitors granted a station identification sign, authorized to receive a Certificate of Registration and welcomed to the *Pop'Comm Monitoring Station* program. They are listed by name, station identification sign, and monitoring station location.

KPC and DX Prefixes

Robert Ahlberg, **KPCØBOB**, Phillipsburg, KS; Kevin Daniels, **GPC3KBD**, Norwich, Norfolk, England; Dale Spangler, **KPC8ZET**, Columbus, OH; William Gennett, **KPC2AKQ**, Pemberton, NJ; Russell Hibma, **KPC9DXR**, Hoopeston, IL; Larry Housour, **KPC9JDL**, Nappanee, IL.

WPC Prefixes

Also: Justin Jones, **WPC9YCU**, Fishers, IN; Nicholas De Nardo, **WPC2ND**, Coconut Creek, FL; Tim Lewis, **WPC2TL**, Wainscott, NY; Richard Beldyk, **WPC4VX**, Lookout Mountain, GA; James Floyd, Jr., **WPC9KID**, Indianapolis, IN; William Bozek, **WPC3BOZ**, Beaver Falls, PA.

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>

We're Getting Feedback On the CB Scene — Hooray!

By Cory GB Sickles,
WPC2CSWA3UVV
<wa3uvv@gmail.com>

“There seems to be special interest in reflecting on the past and looking for ways to recapture the joys of CB communications today.”

Well, judging by some enthusiastic feedback I've received since the first “CB and More” launched earlier this year in *Pop'Comm*, it looks like a number of you are enjoying this column. There seems to be special interest in reflecting on the past and looking for ways to recapture the joys of CB communications, today. (NOTE: See WPC2CS's inaugural “CB and More” in the May edition of *Pop'Comm* beginning on page 23. — KPC6PC)

Curiosities: Base Antennas

Some of you have asked questions about base antennas. In times past, there was a huge selection of quarter-wave ground plane, half-wave, and five-eighths wave variants — even a vertical with three elements that allowed you to have some directional gain! While it may look like no one is manufacturing such antennas today, I assure you there are. Moreover, I've alerted some companies that a demand for such things still exists, so let's hope we see more on the market in the near future.

CB On the Go

Others are obviously having fun with portable “walkie-talkie” stations, using CB to stay in touch while hiking in the woods — far away from the cellular telephone networks we've all become so accustomed to under normal circumstances.

I was especially “wowed” by Scott Smith, who attached a picture of his well-worn, but functional, Robyn WV-23, **Photo A**. Just like the Timex

adage, this radio obviously “takes a licking and keeps on ticking.” (MORE: Scott Smith's email — with details on the WV-23 — kicks off the “Incoming CB Mail” portion of this month's column. Read on! — WPC2CS)

Something Old Is New Again

Others who've read the column were motivated to hook up old radios that hadn't been turned on for many years, or use their communications receivers to listen in. While some noted “garbage” was still there on some channels — poor operating practices and manners — others noted how quiet it was or remarked on some of the more civil and friendly conversations they heard.

It sounds like some, once they find a suitable antenna, may become active on CB once again.

Hands Across the Amateur Community

Other comments were from fellow radio amateurs who know me or, in one case, a fellow who recognized my name and call when we chatted on 17 meters.

Interestingly, all of the comments have been positive. It seems many hams remember their CB roots and are happy thinking that this may be a way of still increasing our ranks with communications enthusiasts who want to experience more of what radio has to offer.



Photo A. *CB and More's* Cory GB Sickles, WPC2CS, was wowed by Scott Smith, who attached to an email this picture of his well-worn-but-functional Robyn WV-23. “Just like the Timex adage, this radio obviously ‘takes a licking and keeps on ticking,’” WPC2CS writes. (Courtesy of Scott Smith)

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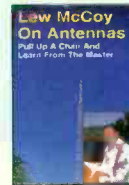
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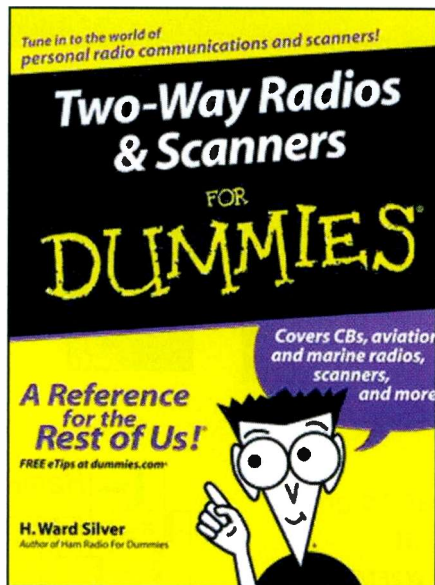
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Photo B. H. Ward Silver, NØAX's, "Two-Way Radio & Scanners for Dummies" is easy-to-understand in a writing style that "will help you better understand CB, GMRS, FRS, scanners, and more," writes WPC2CS. (Internet screen grab)



Overall Impressions

I think the most interesting comments have come from those in rural areas. CB was traditionally a means of talking between homes in more remote areas, with the ability to enjoy longer conversations with lower noise levels. One thing I'd like to point out is: *all bands are going to seem quiet if everyone's listening but no one is transmitting.*

So, if the channels seem sleepy to you, make a call every few minutes or so. You might be rewarded with some responses and some new friends.

All of you certainly have given me encouragement and new things to think about and cover in the coming months. *I'm grateful.*
— WPC2CS

Update: The GMRS Licensing Fee

A few months ago while covering some of the basics of GMRS, I mentioned a proposal the FCC had floated about significant changes that could affect the way GMRS is regulated. It has just "laid there like a lox" for years. Recently, I became aware of another proposal that would eliminate the Regulatory Fee component of certain licenses — GMRS among them.

At present, \$25 of what you pay for a GMRS license is attributable to the regulatory fee. This may just be a nice bargain in itself, or it could foreshadow the elimination of the GMRS License Fee altogether.

If that's the case, then the aforementioned proposal may be moving along before you know it — possibly with changes that become effective in 2014.

Just so you can fully grasp what I'm referring to, and to make an informed decision on how you feel about all of this, here are some links:

- Proposal to eliminate the GMRS Regulatory Fee, <<http://bit.ly/14VBzXp>>
- GMRS Overhaul Proposal, <<http://bit.ly/14vbkEX>>

I encourage you to both read these and *read into* these. Then, decide how you feel about them.

- Is the payment of a fee for a license and identification through a controlled, callsign-based identification worth keeping GMRS the way it is?

- Would you rather see "rule by service" in the same way that Class D CB is handled?

Additionally, there are other changes proposed. If you are — or contemplate becoming — a GMRS user, then your opinion is important. I'd appreciate it if you'd share your thoughts with me, and I will include them in an upcoming "CB and More." But I'd especially appreciate if you would share your comments with the FCC. Guidelines on doing that can be found at <<http://apps.fcc.gov/ecfs/>>.

Seeking Guidance on CB Operation

Some readers are looking for a book or other guide about CB radio. I am all too happy to suggest you pick up a copy of "Two-Way Radios & Scanners for Dummies," **Photo B**, by H. Ward Silver, NØAX. The author's easy-to-grasp writing style will help you better understand CB, GMRS, FRS, scanners, and more.

Your Pictures, Please . . .

It is always fun to share pictures of your station or a vintage piece of gear with others — me and *Pop'Comm* readers included. Please send yours, along with your feedback to: <wa3uvv@gmail.com>.

— WPC2CS

Incoming CB Mail . . .

Here are some recent letters received at the "CB and More" desk at Popular Communications.

In the Wilderness, CB as a Lifeline

CB and More,

I have a Realistic TRC-86, **Photo C**, which I still use on a regular basis. I occasionally enjoy hiking long distances in the mountains. My wife is not really "into" hiking with me.

But she appreciates and enjoys occasional excursions.

Many years ago — long before cell phones — she decided she would rather work on her quilting projects while I was hiking. So, I set up a means that she could have a table and chair and use her sewing machine from the car. Nowadays, she also sometimes uses her computer.

So while I am off hiking, I will sporadically talk with her using my TRC-86 and our Robyn WV-23 in her car. I consider it my "lifeline." I regret that the picture of the Robyn shows off its age. Both of these units are from the early '70s.

Some days I will hike out *many* miles from the car's location. Using the CB (27 MHz) seems to "get-through" just about anything. I have used it around mountains, through dense trees, and so on — and seldom have a problem. Of course we do sometimes have to deal with the *skip talkers*.

I bought a couple of those FRS (UHF) radios a few years ago. They work pretty well if both units are in the clear and on top of a peak with a relatively good "line-of-sight." The signal can be good for several miles in these conditions. However, they aren't worth a hoot if the trees are full of leaves and one or both of the units is down in a valley dense with trees. Under the tougher conditions, they've had a difficult time going a half a mile.

So, the old reliable CB units are still the "go to" communications. Many areas in the mountains of western North Carolina



Photo C. Scott Smith writes that he has a Realistic TRC-86 walkie-talkie he still uses regularly — especially on wilderness hikes. (Courtesy of Scott Smith)

have absolutely *no* cell phone service. My CB handheld becomes even more of a lifeline.

Anyway, I enjoyed seeing a picture of my walkie-talkie in *Pop'Comm*. And I thought you might enjoy hearing that some are still in use.

— Scott Smith,
Titusville, Florida

A Nice Surprise for a CB Old Timer

CB and More.

I recently picked up a copy of *Popular Communications* and was glad to see it is starting to carry a regular column on CB again. I am an old timer in CB radio. I got my license back in 1962.

Back then there was a group of us who had radios in our cars and homes. We would go camping, to coffee breaks, and jamborees. It was fun getting together with other CBers we didn't know.

There are only a couple of us left, but we still keep in touch. That is, *if* we can

talk over the high-powered export radios. I turned 77 in August and I miss those days. Today you can't let the radio on if there are children around because of the bad language.

How is the new generation going to get interested in CB if that is what they hear? I know that CB has a bad reputation, but there are some good operators out there that use it the right way.

When I go on a trip, my radio is on. It has always been a great value for information on the road. I hope your articles keep coming and I will be interested in them.

— Bob Clawser

(Bob: I'm glad you are enjoying "CB and More!" In 1962, I may have had a pair of 100-mw walkie-talkies with some label on them touting just how many transistors were inside — as electronics of that era often did. I'm sure my friends and I added nothing useful to the band at that time.

I know what you mean about some of the behavior we hear on some of the channels. I think the best thing we can do is set a good example for others to follow, especially children who have an interest in electronics and communications. In a

recent *Pop'Comm* I addressed some of this. [SEE: "In Spite of it All, CB Survives and Thrives" in August's *Pop'Comm* beginning on page 21. — WPC2CS]

It's great that you and your friends are still on the air. By any chance, are you using older gear? It seems that — just like in amateur radio — there are a lot of folks who still enjoy tube rigs. There's just something about that orange glow. If you are and would like to share a picture or two, I'm sure readers would be interested and entertained.

I'm hearing from quite a few guys about using CB for useful things, even in this day of cell phones and text messaging. There's just something nice about the randomness of meeting new people and the sound of the human voice. Thanks, again. — Cory GB Sickles, WPC2CS)

I Tried It, and I Like It!

CB and More,

Just read the CB column in May's *Pop'Comm*. I like it!

The magazine had a similar column previously, but that was at least 10 years ago. It dealt more with repair and restoring old tube-type CBs. It was written by

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Photo D. Poly-Comm manufactured Citizens Band radios back in the heyday of CB — to the delight of many 27-MHz operators. (Courtesy of S9 magazine)

Don Patrick, a friend of mine. He had a commercial and CB radio shop in Ft. Smith, Arkansas. I bought my first CB base station radio from him: A Poly-Comm PC-8. What a hot radio. I used a Hy-Gain CLR II base antenna, Photos D and E.

When I put the radio in the car, I used a clip-on mobile whip. Problem was, though, the “vibrator” was so noisy. I solved that problem with an Olson solid-state power supply built into a vibrator can.

I was into CB in the mid-’60s. The channels weren’t as crowded and the range was great. My first radio was an Allied 100-milliwatt walkie-talkie and its range was about 1.5 miles.

Question: Why can’t you buy a decent CB base antenna? My CLR II had a 19-foot, 8-inch radiator and reflectors. I don’t see any base antenna with reflectors now.

— Gary Hickersom, Oklahoma

(Gary: I do remember some of the older columns in Pop’Comm — “CB Scene,” if memory serves. There are still many people who prefer tube-based gear, just like some hams. All of those, of course, are 23 channel rigs. The “missing” channels don’t seem to bother anyone.

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Photo E. This two-page advertisement for Hy-Gain's CLR-II Citizens Band Base Station antenna appeared in the August 1963 edition of S9 magazine. (Courtesy of S9 magazine)

I laughed when I read “vibrator.” I remember those and dynamotors. In fact, I think I may still have a few 12V/6V vibrators with other parts in the garage.

Olson is another name I haven't heard in some time. They used to have a store in a suburb of Pittsburgh near where I grew up, and I'd stop there from time to time, picking up some items that the local parts stores didn't have.

As to your base antennas question: I'm querying some of the ham radio manufacturers to see if they'd be interested in offering a few models. I can tell you that a Cushcraft AR-10 “Ringo” can be pressed into service for CB. I did the opposite, though. My 40+ year-old CB “Ringo” regularly gets me contacts on 10 meters. There's also Solarcon, as another alternative. Stay tuned — hopefully there will be some more options showing up soon.

Glad you are enjoying the column. Hope to hear from you again. — Cory GB Sickles, WPC2CS)

CB Memories from the '60s and '70s

CB and More,

I just read Cory GB Sickles, WPC2CS's, “CB and More” column in Pop'Comm and wanted to drop a line. The picture of S9 magazine <<http://bit.ly/10iO2mf>> brought back memories of my

late father reading a couple of issues of that magazine. At the time the company he worked for had five Johnson White Face CBs in the trucks — in the two oil trucks, the 1940s Willy's Jeep, in the burner service truck, and one used as a base station in the garage.

I later found out that when the business was bought by a larger company in late '69 or early '70, the radios went to another small company and one of its burner service guys kept one for personal use after the buyout. The CB callsign was KMA-4903.

I got my radio training working weekends and some school holidays on the truck with my dad, taking messages from the base station on an old GE remote-head business band radio.

I broke into CB around the spring of '76 after I graduated high school. I had a series of handheld units. One was a Pace and the other was a mobile made by Midland.

I later got a second-hand Sparkomatic 40-channel mobile radio and then a Realistic 40-channel SSB unit. I eventually moved up to a modified Washington SSB base station until I needed money and had to sell it. (WATCH and LISTEN: To a Uniden Washington CB transceiver in action at <<http://bit.ly/10iYlgm>>, Photo F. — WPC2CS)

In the closet now I have a small radio on a power pack and use a combination



Uniden Washington CB Radio AM SSB Base Station President

Photo F. After using Sparkomatic and Realistic radios, CBer Don Hallenbeck, of Pittsfield, Maine, upgraded to a modified Uniden Washington base station. This video captures the Uniden Washington “President” model in action. (Internet screen grab <<http://bit.ly/10iYLGm>>)

of a dipole and mobile antenna. Unfortunately, my apartment complex doesn’t allow outside antennas — boo, hiss. That includes TV antennas, satellite dishes, and so on. It’s either cable TV or very limited over-the-air digital TV with a converter box and rabbit ears.

A friend of mine says the CB airwaves up here in Maine are dead: nobody is ratchet-jawing, not even the 18-wheelers. I guess they’ve all gone to the cell phones with a handi-talkie feature or something of that nature.

Someday I’ll get brave enough to get my amateur radio license, like a couple of my uncles, W1FNU and W1AUH — Silent Keys since the mid-1970s.

– **Don Hallenbeck,**
KAAK-0783,
SSB 1556-B,
PTS-1091,
KME1CW Registered Monitor,
Pittsfield, Maine

(Don: Thank you for writing and helping me take a step or two back in time with some of the old CB brands you mentioned.

I know that operating from an apartment can be daunting, but sometimes you get lucky. Also, a vertical dipole is fairly “invisible” against a building. Mounting is made a bit easier if you have access to the roof. If you’re on the ground floor, then maybe a cable run out to a closely parked car and mobile antenna may do the trick.

As to the “dead” band, it may not be dead at all. On some ham bands like 10

and 6 meters, for example, many are listening — but no one is transmitting. It just seems dead. Giving a call every once in a while may reward you with some happy results. I’m getting emails from readers who are now motivated to take their radios out of the closet, basement, or garage and fire them up again. Perhaps you’ll hear some other CBers in the near future in your area doing just that.

Certainly, I want to encourage you to join the ham radio community. With a fairly modest setup you should be able to

get out quite well. Mobile operation has its rewards, but there’s still something about doing it at home.

I regularly teach amateur radio licensing classes and can tell you that getting your Technician license has really never been easier. Study guides from the ARRL and Gordon West make preparing very easy.

Many pass the test just from those guides, while others use them as a basis for attending a license class. With the code requirement a thing of the past, it’s just some light theory and some rules to learn. By the way: with the Vanity Call System, you might just be able to get one of your uncles’ amateur call signs as your own!

Funny thing, though, once they dropped the code requirement, there’s been more interest in learning it! That and some of the digital modes are great in situations where less-than-optimal antennas or low-power operation factor into your station. I have a number of friends who communicate all over the world using just a few watts.

If you take a look at the ARRL’s website <<http://bit.ly/13LEtvr>> you can search for ham clubs near you. Having a mentor or two — radio amateurs call them “Elmers” — can really help with learning and saving money. Although I’m not near you, I’ll be happy to answer any questions that might come up.

Ham or CB, both are good ways to enjoy communications and reach out to make new friends. I hope you have fun, pick up some ideas from future columns, and get to relive memories of loved ones.

– Cory GB Sickles, WPC2CS)

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At Pirate 'Rave On Radio,' They Aim To Please

By Steven Handler,
WPC9JXK
<stevenhandler-
popcomm@yahoo.com>

“First hitting the pirate airwaves in 1994, in the past year it has been one of the most prolific pirate broadcasters on the shortwave bands.”

This month we bring you an interview with the North American pirate radio station *Rave On Radio*. First hitting the pirate airwaves in 1994, in the past year it has been one of the most prolific pirate broadcasters on the shortwave bands.

[Handler] How did you select “Rave On Radio” for your name and does the name have any special significance or meaning? (**LISTEN:** To “Rave On Radio” at <<http://bit.ly/14uQ6Hd>>, **Photos A and B.** – WPC9JXK)

[Rave On Radio] Yes. We took it from a Van Morrison song called “Rave On John Donne” — it was then and still is today one of our favorite songs — it’s about the English metaphysical poet who lived in the 1500s-1600s — his most famous work is probably “No Man Is An Island” (“... For whom the bell tolls. It tolls for thee.” — that one). (**LISTEN:** To Van Morrison’s “Rave On John Donne” at <<http://bit.ly/19oUTkb>>, **Photo C.** – WPC9JXK)

[Handler] When you started “Rave On Radio” did you have any specific goals for yourself and for the station? If so, what were they?

[Rave On Radio] Not really. The main point was, and still is, to have fun, play good music, and to try to satisfy our listeners’ requests (we’ve

had a few “All Requests Shows” where we give a bunch of avid listeners a heads up a day or two before the show via email and ask them what they’d like to hear).

[Handler] Have you accomplished those goals?

[Rave On Radio] Absolutely. The fun part is simple and perennial, and keeping our listeners happy seems to be going well. At “Rave On Radio,” we aim to please!

[Handler] How long before an actual broadcast do you start to prepare for a show?

[Rave On Radio] Sometimes we plan weeks (2-3) in advance — for shows like a Halloween broadcast. Others are very spur of the moment and the preparation starts three minutes before we sign on — most of what follows is determined during the show. If we are planning an anniversary-type show, we might jot the show contents down a few days prior as an outline. If we are planning a show of mixed music with no particular “theme,” then the hardest part is picking the music. We fill in with old TV and radio commercials and IDs. This could take a few hours to determine.

[Handler] Describe the process and steps that you go through to prepare for a show and give an idea of the amount of time you need to devote.

[Rave On Radio] If we are broadcasting a full LP (CD), then it’s pretty straightforward and we just throw in IDs as needed. If it’s a birthday show, then we spend a few days choosing the songs by that artist that we think the listeners will mostly enjoy and again the IDs are just “as needed.” If we are doing a show for an event anniversary — like the Kent State Shooting Tribute show — then we spend a few days discussing song selection that best fits the mood of the event. So, sometimes getting ready is a 15-minute job; sometimes it takes days. We usually try to limit broadcasts to 20-45 minutes but sometimes we find ourselves on for over an hour. We aim to please so if reception reports are strong, we try to stay on the air a bit longer.

[Handler] Some of your shows have been theme based, such as Jerry Garcia’s Birthday, Flatt & Scruggs, etc. How do you choose the themes for your shows?

[Rave On Radio] Usually we play those types



Photo A. This “Rave On Radio” QSL card is circa 2013. (Courtesy of Rave On Radio)

of shows on either the anniversary of a person's birth or death (I think it was his death in Scruggs' case and Garcia's birthday last time around as you note). But, sometimes we will just feature a certain artist — though mainly we try to hit an anniversary date — like the “Who Killed Davey Moore” show we did this past March which was in memory of the boxer who died after a fight with Sugar Ramos in 1963. We also enjoy broadcasting special shows on other types of anniversaries. For instance, last year we did [the

“Kent State Shootings” show on May 4. And we are doing a series on songs about trains — we've done three broadcasts so far, I think, all featuring music from the 1920s to the '60s — the “Steel Rails” series.

[Handler] How do you select the music for the shows that are not theme based?

[Rave On Radio] We try to play music by a certain grouping of artists that we aren't hearing anyone else playing — staying in the “rock-bluegrass-folk”



Photo B. Listen to a “Rave On Radio” broadcast on 6925 kHz recorded in April 2013, <<http://bit.ly/14uQ6Hd>>. (Internet screen grab)

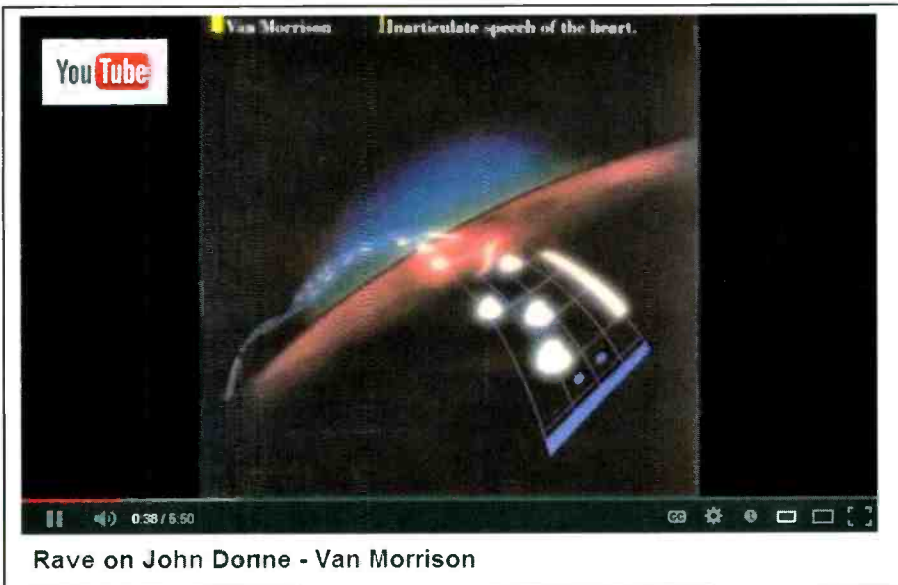


Photo C. Van Morrison's “Rave On John Donne” was the inspiration for choosing “Rave On Radio’s” name. It is also one of the staff’s favorite songs. (LISTEN: At <<http://bit.ly/19oUTkb>>. (Internet screen grab)

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Photo D. Vladimir Ussachevsky's "Wireless Fantasy" "is a 'song' made up entirely of sounds received in the traditional shortwave band spectrum," said staff members of Rave On Radio. *(LISTEN: To "Wireless Fantasy" at <<http://bit.ly/147j9Sc>>.)* Internet screen grab

arena. We don't play much "classic" rock or much straight blues or jazz. We enjoy old American 1920s-1940s folk very much and it is not unusual to hear a lot of bootleg live versions of rock music on Rave On Radio.

[Handler] Do you have a preference in type of music that you play?

[Rave On Radio] Unless it's a "requests show" in which case we try to play what people ask for ... [then] examples of "our choices" include: Johnny Cash, Bob Dylan, The Allman Brothers, The Grateful Dead, Jerry Garcia (including Legion of Mary), Warren Zevon, Lou Reed, David Bowie, The Who, Neil Young, Frank Zappa (including The Mothers of Invention), The Band, Doc Watson, Flatt and Scruggs — you get the idea.

[Handler] Do you have a favorite "Rave On Radio" broadcast and if so, which broadcast was that?

[Rave On Radio] Geeze, these are getting hard! Halloween shows are always fun, that's for certain. But we did an "All Requests Show" this past fall that we gave very short notice about to listeners, so we wound up taking requests live based on listeners live postings on the Internet — though we were completely unprepared for 90 percent of the requests, we filled just about every one. At one point, a listener made a request, we announced that we didn't have what they wanted to hear so they emailed us the song

in MP3 format and we were able to get it on before signing off. It was an exhausting show but very memorable. We worked like a real team that night here at "Rave On Radio" (someone on the transmitter, someone on the audio sources, someone on the Internet, and someone passing out beers) and it was great. And based on reviews, the listeners really enjoyed the show.

[Handler] What was the most memorable moment you have had during "Rave On Radio" broadcasts?

[Rave On Radio] Besides the sheer thrill of being on air for the first time back in 1994, the "All Requests Show" is the most memorable as it was such a blast!

[Handler] You mention that you take listener requests. What is the most unusual request you received from a listener?

[Rave On Radio] The most unusual request was made by a listener — Desmo-face is his moniker — he requested that we broadcast Vladimir Ussachevsky's "Wireless Fantasy" which we were happy to do and did so on March 15, 2013. It's a "song" made up entirely of sounds received in the traditional shortwave band spectrum. *(LISTEN: To "Wireless Fantasy" at <<http://bit.ly/147j9Sc>>, Photo D. — WPC9JXX)*

[Handler] Some of your previous broadcasts included an SSTV (slow-scan TV) image. Do you plan to continue with that tradition?

[Rave On Radio] Yes, we almost always plan and are ready to transmit an SSTV image at the end of a show but sometimes it just doesn't come together and we abandon it and just sign off. It's hit or miss, really. One reason why we often kill it is that the tones are annoying and being we are out in the woods and some of our station's team members don't use headphones but rather use small desktop-type monitors, we have seen how the local wildlife reacts to the sounds and that often deters us from transmitting SSTV. The music and voices don't seem to create much havoc but the SSTVs send the place into a fury!

[Handler] Is there anything else that you would like to tell the readers of Popular Communications about the history of "Rave On Radio?"

[Rave On Radio] Well, as we explained, we first got the urge in '93-'94 after hearing other pirates and we really enjoyed our early days — though they were short lived. Fast forward from spring 1994 to spring 2011 and the urge struck again. We acquired some gear and took to the air on Kentucky Derby Day — May 8, 2011 — with a test broadcast of just voice transmissions. The first "real" show was later that same day when we played some *Traffic* live from 1970.

Milestones that we relish are our first Halloween show (November 2, 2011), our first SSTV transmission (April 29, 2012), our run of three shows broadcast right before each of the three presidential debates in the fall of 2012, and our first "All Requests Show" on November 4 and May 12 — these shows are always a challenge for us, working with multiple audio sources, but they are a real blast. There have been way too many other memorable broadcasts to continue as we'd be sure to miss one.

[Handler] Pirate radio by its nature only reaches a very small audience. Have you considered contacting some of the licensed shortwave broadcasters to see if they would carry your program so that it reaches a much larger audience?

[Rave On Radio] Holy cow, we have never, ever, ever considered this option! Honestly, may we be so bold to ask if this is possible? If so, that would be fantastic.

Appreciation

I wish to thank "Rave On Radio" for agreeing to be interviewed and giving generously of their time in answering my questions. And readers, don't forget to email me <stevenhandler-popcomm@

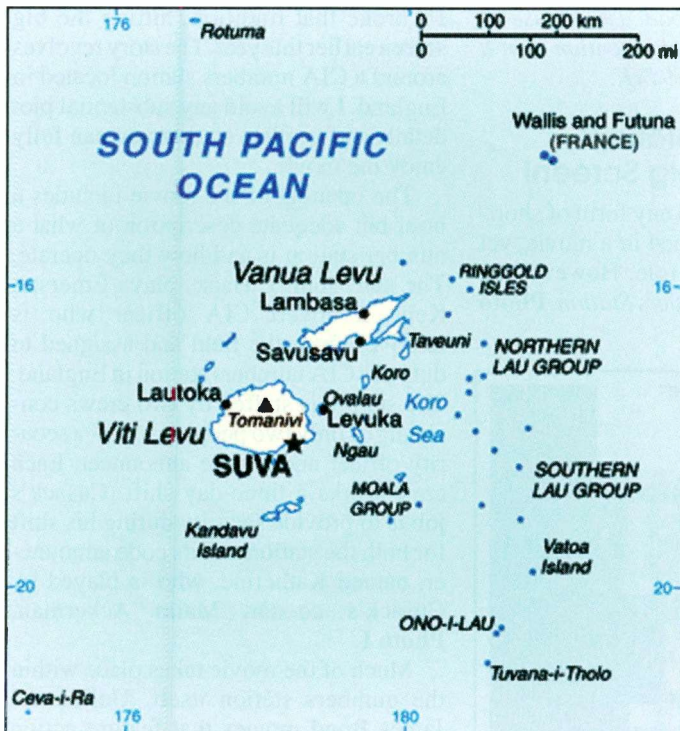


Photo E. Map of the Fiji Islands (Courtesy of the U.S. Central Intelligence Agency)

yahoo.com> with your loggings of “Rave On Radio” or other pirate stations to include in this column.

Opposition Broadcasts to Paradise ... But why?

When you think of Fiji, thoughts of tourists basking in the tropical Melanesian weather might come to mind. But for the last seven years this tropical paradise has been battered by a political storm. Fiji is a nation in the South Pacific Ocean, about 1,800 miles East of Australia and just West of the International Date Line. Fiji is composed of more than 300 islands, about a third of which are inhabited.

Inhabited for thousands of years, it wasn't until the mid-1600s that the Europeans first set site on this island paradise. In 1774, the famous English navigator and explorer James Cook sailed through these islands. But perhaps the most famous early European traveler to set sight on these islands was Captain William Bligh, of “Mutiny on the Bounty” fame. After being set adrift by members of the Bounty's crew, Captain Bligh and loyal crewmembers piloted their small launch on a 6,000-mile journey to freedom, sailing through the Fijian Islands on route, **Photo E.**

By the mid-19th century, European missionaries had arrived in Fiji. This led in part, to the demise of the practice of cannibalism by the natives. The early 20th century saw the end of the system of indentured laborers, many of whom worked on

Fiji's sugar plantations. By the later part of the 20th century, Fiji's ideal climate, route location, and friendly population made Fiji famous as a tourist destination.

Fiji, a British colony, gained its independence in 1970 and became a success story for the island nations of the Pacific. Independence ushered in a parliamentary and democratic government. But there was big trouble brewing in paradise. Political infighting and squabbling led to a series of four coups, each rocking the island nation. The most recent coup in 2006 brought firm military rule to Fiji, which persists today.

In 2009, the military government took the further step by abrogating Fiji's Constitution. The military government, through the use of decrees and emergency regulations, limited basic human freedoms. There have been reports of harassment, including the arbitrary arresting and abusing of the government's opponents, as well as human rights activists.

Groups both inside and outside of Fiji have sought a peaceful return of democracy. One of those groups was the Australian based Fiji Democracy and Freedom Movement (FDFM). Opposed to the military's rule, their apparent goal is the restoration of democracy and freedom for Fiji.

Using shortwave broadcasting as a tool, they hoped to grow the international movement that sought the restoration of democracy in Fiji. On June 4, 2012, the FDFM began a shortwave broadcast beamed to Fiji. Leasing a transmitter from World Harvest Radio in Cyprus Creek, South Carolina, *Domi I Viti*, their weekly half-hour Fijian language program, was broadcast on Monday nights from 0830 to 0900 GMT (2030 to 2100 Fiji local time). Most recently using a frequency of 11565 kHz, the broadcasts continued through January 7, 2013. Although not on shortwave at the time this was being written, it is possible that “*Domi I Viti*” may return to shortwave in the future, **Photo F.**

Fiji has been under pressure to restore democracy and hold free elections, not only from groups such as the FDFM, but from democratic governments throughout the world, including the United States. It appears that this goal may be reached next year. If so, it may be due, in part, to the work of groups like the FDFM making “*Domo I Viti*” an example of shortwave radio's ability to influence history.



Photo F. FDFM “Domo I Viti” program presenters, from left, Sekove Junior, Samisoni Tuiwainunu, Miriama Saumaisue, Asena Mateyawa, and Lote Raikabula. (Courtesy of Fiji Democracy Freedom Movement, FDFM)

(**WATCH and LISTEN:** To a portion of a “Domo I Viti” broadcast on YouTube at <<http://bit.ly/10iqHkq>>, **Photo G.** – WPC9JXK)

Calling All Readers: ‘Domo I Viti’ QSL Hunt

I am not aware of any QSL cards or letters from Domo I Viti/Fiji Democracy and Freedom Movement. If you received

a QSL for one of its broadcasts, please let me know so that I might mention it in a future column. – WPC9JXK.

‘The Numbers Station’ Comes to the Big Screen!

It is very rare when any form of short-wave radio is mentioned in a movie, yet alone plays a central role. However the 2013 movie, *The Numbers Station*. **Photo**

H, broke that tradition, hitting the big screen earlier this year. The story revolves around a CIA numbers station located in England. I will avoid any substantial plot details and spoilers so that you can fully enjoy the movie.

The opening of the movie includes a brief but adequate description of what a number station is and how they operate. The star, John Cusack, plays Emerson Kent, a covert CIA officer who is removed from the field and assigned to duty at a CIA numbers station in England. The station is staffed by two crews consisting of only two people each — a security officer and a code announcer. Each crew works a three-day shift. Cusack’s job is to provide security during his shift for both the station and its code announcer, named Katherine, who is played by Cusack’s co-star, Malin Ackerman, **Photo I.**

Much of the movie takes place within the numbers station itself. Unlike the James Bond movies that feature action and gadgets galore, *The Number’s Station* falls more in line with the more minimalist and darker movies such as *The IPCRESS File* and *Funeral In Berlin*. At times the movie is slow moving while weaving the story for the viewer.

Traditional movie rating sites have given this film less than stellar reviews. Although not on the level with films like *Tinker, Tailor, Soldier, Spy* or *From Russia With Love*, I did find *The Numbers Station* enjoyable and worth watching. I would recommend it to those who enjoy spy movies as well as to numbers station enthusiasts.

I chose to view this movie using my cable’s pay-per-view option, rather than purchasing a DVD copy. This allowed me to view it very shortly after its release. Since I watch most movies only once, waiting for the DVD release was not a consideration. Runtime is about 90 minutes and you may want to check the film’s MPAA rating to determine suitability for younger viewers.

At the time of writing this review, the movie is available in the U.S. on both traditional and Blue Ray DVD. For those who would rather rent than own a copy of this movie, you might check your local RedBox, Netflix, Blockbuster, or favorite movie rental facility for availability. For those wishing to own rather than rent, careful shopping on legitimate movie vendor websites might net either the traditional DVD or Blue Ray for a cost very substantially below list price. (**WATCH and**



Photo G. This YouTube video captures a portion of a “Domo I Viti” broadcast on Christmas Eve, 2012 <<http://bit.ly/10iqHkq>>. (Internet screen grab)



Photo H. John Cusack — as Emerson Kent in the movie *The Numbers Station* — sits at the desk where the numbers broadcasts are recorded. (Courtesy of Image Entertainment)

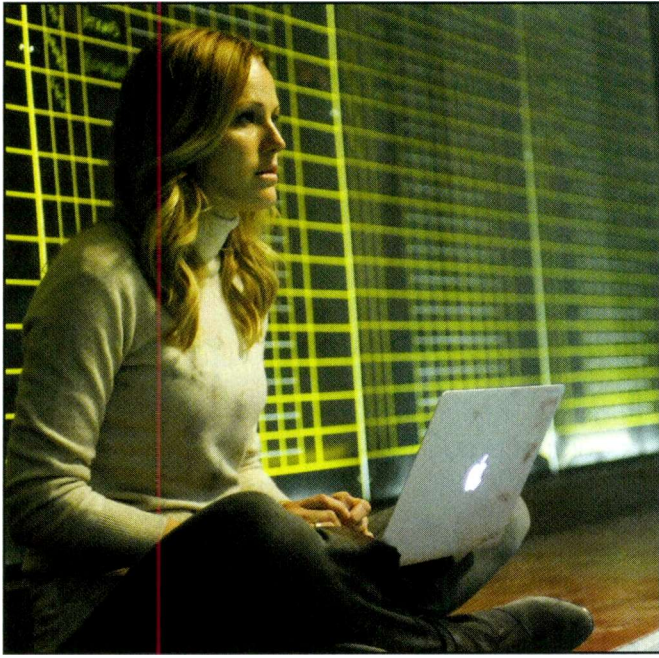


Photo I. Malin Ackerman appears as Katherine who prepares and records the numbers broadcasts in the movie *The Numbers Station*. (Courtesy of Image Entertainment)

LISTEN: To the trailer for “*The Numbers Station*” at <http://bit.ly/128B7SE>, **Photo J.** – WPC9JXK)

You Rate the Movie

If you have seen “*The Numbers Station*,” how did you like it? Rate the movie from 1, the lowest, to 10, the best. Email your rating to me at stevenhandler-popcomm@yahoo.com and I will tally all of the ratings I receive and provide the results in a future column.

More Shortwave Radio in Spy Movies

Until *The Numbers Station*, shortwave radio received only tangential mention in most spy movies. You might occasionally see a spy using a two-way radio but not much more than that. Two James Bond movies made slight mention of shortwave radio.

Dr. No: In this thriller, Bond incorporates a shortwave transceiver into the plot. In an early scene, John Strangways, MI6’s resident agent in Jamaica, is killed on route to MI6’s Jamaica station, which is located in Strangways’ bungalow. The scene shifts to Strangways’ bungalow/Jamaica station in which his female secretary opens a hidden compartment in a bookcase revealing a shortwave receiver and separate transmitter. You hear her sign on, “W6N, W6N, W6N calling G7W, how do you hear me, over.” A male voice replies, “G7W London, G7W London receiving you, over.” She replies, “standby to transmit, wait out.” After which she is murdered.

From there, the scene transitions to a London communications center with numerous receiving positions. A signal’s officer can be heard trying to contact station Jamaica. He informs his supervisor that W6N Jamaica broke off voice contact just after they came up on a routine transmission, however the transmitter’s carrier wave could still be heard. Later in the scene, Bond is being briefed by M and is told that Jamaica went off the air just after their opening procedure and that John Strangways and his secretary are missing.

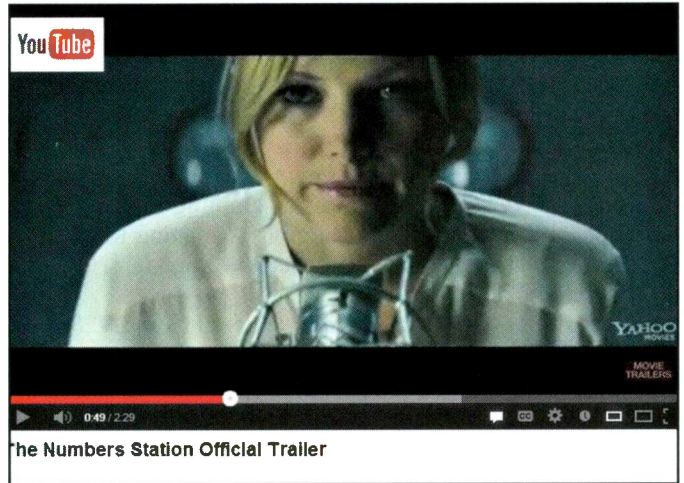


Photo J. Watch a trailer for the shortwave-related motion picture “*The Numbers Station*,” starring Malin Ackerman with John Cusack at <http://bit.ly/128B7SE>. (Internet screen grab)

Thunderball: The fourth Bond movie, *Thunderball*, has a minor mention of shortwave radio. After stealing nuclear weapons from a NATO aircraft, the villainous Specter organization offers to ransom them back to the British government. In the ransom demand scene, a slightly mechanical and defiantly evil-sounding voice tells the British government that the 100 million pound ransom is to be paid with blue-white flawless diamonds, and informs them that after the ransom payment is verified “you will be notified on radio frequency 16.23 megacycles where the atomic bombs may be recovered.” Not much of a mention, but better than nothing. It is also an interesting choice of frequencies.

Shortwave On TV

Danger Man/Secret Agent: TV spy shows have also made scant mention of shortwave radio. One notable exception is the *Danger Man* (UK version) and *Secret Agent* (U.S. version) TV series.

One of the last episodes, entitled the *Not-So-Jolly Roger*, takes place almost entirely onboard a pirate radio station presumably located in the North Sea off the coast of England. It was never clear to me whether the pirate station broadcasted the musical programs on medium wave or shortwave. However the plot involves British agent John Drake, trying to locate who was sending secret radio transmissions, in addition to the pirate’s musical broadcast.

Are There More?

If you watch a spy movie or TV show that mentions or incorporates shortwave radio, let me know. My email is stevenhandler-popcomm@yahoo.com I will compile the information and provide appropriate details in future columns.

North American Pirate Station Loggings

Note that all days and times are in UTC.

Black Cat Radio, 6925 kHz 2246 until 2333 sign off. Opened and closed with SSTV sounds; played rock music with two male

announcers providing periodic IDs and e-mail address for reception report: <blackcatradio1@gmail.com>. Fair. (D'Angelo-PA)

Clandestine and Opposition Station Loggings

Note that all days and times are in UTC.

Firedrake (Chinese government jamming station) 1202, 1258, and 1302 with musical jamming (Targeting Radio Free Asia's Tibetan language broadcast) Poor-fair signals. (Anonymous Contributor)

Radio Farda via Nauen, Germany (Targeting Iran) 7280 kHz 0127-0212 Farsi language program with vocal selections until time pips at 0130 followed by ID and news. More vocals after 0200. Fair. (D'Angelo-PA)

Radio Miraya via (tent.) Sofia, Bulgaria (Targeting the Sudan/Darfur region). 11560 kHz 0422-0437 Jun 8, woman announcer asking questions of a man about agriculture, Minister of Finance, universities and spending bill, all in English until program previews at 0428, several IDs, jingles followed by Arabic at 0430. Next night noted with English opening at 0415. Fair. (D'Angelo-PA)

Radio PMR via Moldova 9655 kHz 2346 to the 0001 sign off. Classical music program with a woman announcer giving ID and closedown at 2355 in Eastern European sounding language. Closing IS from 2356 when Radio Romania International's 1-hour English program commenced but for only one minute until technician cut the feed. Fair. (D'Angelo-PA)

Spy and Numbers Station Loggings

Note that all days and times are in UTC. Unless otherwise noted, all station designators use the Enigma2000 naming convention.

E07 on 14812 kHz USB 1900 with a male mechanical synthesized voice in English no message just identifier given. Possible broadcast originator-Russia. (Anonymous Contributor-via Web SDR, Netherlands)

E07A 8173 kHz USB 2000 with a male mechanical synthesized voice in English no message just identifier given. Two minute, six second broadcast. Not sure but there may have been a data transmission underneath the voice. Possible broadcast originator-Russia. (Anonymous Contributor-via Web SDR, Netherlands)

HM-01 9240 kHz AM 0946 until 0954 sign off Female synthesized voice in Spanish with a five-digit number alternating between RDFT data transmissions. Good to excellent signal and OK modulation. Sunday (Anonymous Contributor)

S28 4625 kHz "The Buzzer" (formerly Enigma designator was XP) was monitored using USB. 1800 tuned in to loud buzzer sound repeated over and over about 20 times a minute. Possible broadcast originator-Russian military. (Anonymous Contributor-via Web SDR, Netherlands)

Thanks for Your Help

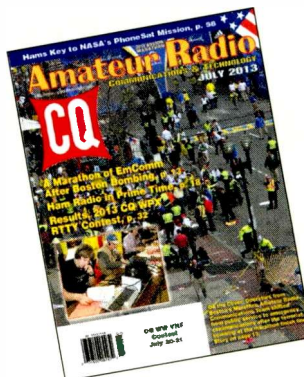
This month's loggings contributors are Richard D'Angelo of Wyomissing, PA, and Anonymous Contributor(s).

Thank you for reading this month's COPS. If you would like to contribute Clandestine, Opposition, Pirate, Spy or number station loggings for possible inclusion in this column, please send them to me at <stevenhandler-popcomm@yahoo.com>. Until next month, good listening!
— WPC9JXX

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A Coax 'Switch' that Saves Money and Boosts Performance!

by Kirk Kleinschmidt,
NTØZ/KPCØZZZ
<kirk@cloudnet.com>

“As with wine and cheese, when it comes to 50-ohm coax, you usually get what you pay for.”

As a beginning ham, what I lacked in high-tech tools I made up for with teenage enthusiasm. And, despite a tendency to build stuff “on the cheap,” I still wanted things to perform well. When building dipoles and loops, for example, after properly stretching my soft-drawn copper wire — donated by the owner of a local motor-winding shop — I measured every wire segment precisely.

My center and end insulators, donated by old-timers from the local Civil Air Patrol, were the finest military-grade ceramic models made by Collins and Johnson. I even had a tower in my backyard from which to hang my creations. *(BACK STORY: I worked part-time for a local TV repair shop. On one exciting day, the shop owner gave me an “extra” 48-foot Rohn tower that “wasn’t on the invoice” of his latest received shipment. I have always suspected that my dad made this happen “behind the scenes!” — KPCØZZZ)*

I made quads and wire Yagis out of bamboo poles scavenged from local carpet stores, and I

made G5RVs from copper motor-winding wire and 300-ohm, twin-lead from the corner RadioShack® store. And those were just my “conventional” designs.

In those days, the sunspot cycle was a lot more cooperative than it is today, so I worked plenty of domestic and DX stations — but if I had known just a bit more about feed lines, my experiences would have undoubtedly been better. I’d be on the Honor Roll for sure!

My worst mistake? Feeding all of my home-brew antennas with 150-foot runs of cheap, low-quality coaxial cable. Have you unknowingly been making the same mistake?

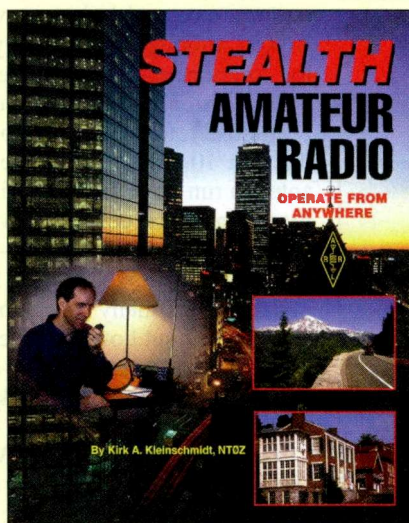
Because of limited funds, instead of saving up for better, yet much more expensive coax, I used what I was familiar with and what I could afford: cheap RG-58 coax. I didn’t know it then, but the price I would pay would be a heavy one.

It’s no wonder I took to QRP right from the start. Even though my trusty Tempo One transceiver was putting out 100 watts or more, not much was actually making it to the antenna. And if you add a couple of “soldered by a teenage ham” PL-259 connectors, it gets even worse. Although there’s still plenty of questionable-quality 50-ohm coaxial cable on the market — in addition to plenty of good stuff, which, unfortunately, isn’t inexpensive — the satellite and cable TV industries have provided us with an excellent, affordable coaxial cable that’s available everywhere — even at Wal-Mart. This ubiquitous wonder cable has a 75-ohm characteristic impedance, not the traditional 50 ohms, but despite what you may have read or been told, that’s completely irrelevant. The benefits far outweigh the drawbacks.

‘Coax Here, OM, is RG-6’

All hams seem to worry about which feed lines work best for specific applications, and which connectors they should use and how to attach them — a particularly frustrating issue for otherwise fearless operators! As with wine and cheese, when it comes to 50-ohm coax, you usually get what you pay for. It’s almost impossible to go wrong with RF cables made by mainstay companies such as Belden, Andrew, or Times Microwave, but there are other high-quality makers if you dig around a bit.

Which 50-ohm coax should you avoid? Anything priced too good to be true. Quality 50-ohm cable rarely comes cheap. And watch out for



About the Writer

Since writing his first Ham Discoveries column for Pop’Comm in 1989, Kirk A. Kleinschmidt, NTØZ/KPCØZZZ, has written more than 300 columns and feature articles about amateur radio. In addition to editing “The ARRL Handbook” and serving as QST’s Assistant Managing Editor, Kleinschmidt is author of “Stealth Amateur Radio,” available at <<http://www.stealthamateur.com>>.

knockoffs, which also exist in the marketplace, online, and in-store. It doesn't take a genius to stamp a popular brand name on a cable's vinyl jacket — *only an unscrupulous vendor or manufacturer*. Be especially wary of 50-ohm coax sold at truck stops, mass-market chain stores, or from eBay sellers who have less-than-stellar feedback ratings.

By now you've probably noticed that I've carefully been using the term "50-ohm coax." That's what hams are supposed to use, right? That's the stuff that's been featured in countless books and magazine articles since World War II, right? Yes, but for almost every ham radio installation below 2 meters, 75-ohm RG-6 "satellite cable" or "cable TV cable" works just as well, or better, and has many advantages.

Unlike inexpensive 50-ohm "ham coax," which can have a skimpy 65 percent braided outer shield, RG-6 is at least dou-



Photo A. Compression-style F connectors (back row) and a variety of Type-F adapters (PL-259, RCA, and BNC) transform RG-6 sat cable into whatever you need! (Courtesy of KPCØZZZ/NTØZ)



Photo B. This compression tool, required to attach the connectors, goes on sale at Harbor Freight Tools for about \$15. It's not as flexible as more-expensive tools, but it gets the job done. (Internet screen grab)

ble-shielded with a continuous foil shield and an outer woven braid. And there are "quad-shielded" versions readily available, as well.

Because RG-6 is produced in massive quantities (compare the number of people who have TV sets with the number of hams), it's inexpensive.

Because it's used in cable TV and satellite TV applications, RG-6 has to be relatively low-loss up to 700 MHz — which is especially awesome if you're using it at 7 MHz. Bargain-base-ment runs of 50-ohm cable often fail miserably at higher frequencies if they're more than a few feet long.

Unlike traditional RG-8/RG-58, you can find decent quality RG-6 just about everywhere. Even at Wal-Mart, which is extra handy for middle-of-the-night runs for coax and contesting snacks!

Because RG-6, like its little brother RG-59, is designed to use compression-style F connectors, **Photo A**, attaching them is a breeze and requires no voodoo. With a variety of readily available adapters you can transform an F connector into a PL-259, a BNC, an RCA or whatever you need.

Solder-Free, Weather-Resistant Connectors

Correctly soldering PL-259 connectors to the ends of 50-ohm coaxial cables can be pure agony, even for experienced hams. The procedure, in a variety of variations, is documented in dozens of radio handbooks and websites, but making high-quality cable ends is just plain difficult unless you are taught a good technique in the flesh by another expert and practice it regularly.

If you're making a few cables here and there using *el-cheapo* connectors and "bargain coax," forget it. Your results will likely be dismal at best.

If you're at all like me, you hate soldering PL-259 connectors to coax, and let's not even talk about N connectors and BNCs. Although I can usually do an OK job if I use high-quality components, I don't like the process one bit, especially because I don't perform it frequently enough to stay consistent.

Actually, I don't worry about it at all anymore, because for the past 10 years I have used 75-ohm RG-6 cable for every antenna run up to and including 2 meters. I attach a high-quality compression connector with an inexpensive tool — about \$20 on eBay and elsewhere — and add adapters as needed. It's fast, easy, and it works well, **Photos B** and **C**.

I've heard many "traditionalists" launch into rarified dissertations about how F connectors "add impedance bumps" or how the cable's heretical 75-ohm impedance will mess up the works, but unless you're making phasing harnesses or coaxial impedance-matching lines, it doesn't really matter. *Not one bit!*

For amateur radio and SWL feed lines, 75 ohms is close enough to 50 ohms for just about any purpose. Many of the antennas we assume to have 50-ohm, feed-point impedances actually match better to 75-ohm coax. Similarly, we assume that our rigs are designed to work into 50-ohm loads, but what if your specific final amplifier actually likes 40 ohms better? Or 67 ohms? And your receiver won't even notice such an insignificant difference.

When it comes to power handling, RG-6 can easily handle 100 watts of RF at any feed line SWR. And probably a lot more. In installations with low feed line SWRs, 300 to 500 watts are no problem, even at 6 meters. On 160 through 40 meters, you could safely make that 1,000 watts, as some hams have reported. Above 100 watts, connectors and adapters affect power-han-

dling capabilities much more than the voltage breakdown and thermal capacity of the cable itself.

If you need to run more power or require less attenuation, switch to RG-11, RG-6's older brother. Essentially, RG-11 is RG-6 on steroids. You'll need compression connectors and tools sized to fit, and the beefier cable is more expensive, but it offers nearly double the performance, especially at the higher end of the frequency scale.

Some RG-6 cable intended for use in satellite TV installations has an added bonus: a separate, insulated "pilot wire" molded into the outer jacket. Designed to support overhead outdoor cable runs, this heavy-gauge steel wire can be used to provide DC to remote antenna feed points, outdoor relay boxes, or outdoor auto-couplers. Until I switched to a battery-powered unit, I powered my external auto-coupler for years via this handy wire with 12 VDC on the wire and the coaxial shield, RF on the coaxial inner conductor and the outer shield, **Photo C**.

Of Course, There Is An 'Issue'

Compared to its many virtues, RG-6 and RG-11 have one common issue: although the center conductor is copper (easy to solder), the shield braid is usually aluminum — which can be difficult or impossible to solder without special tools or techniques.

So, when feeding a dipole, for example, it's easy to solder the center conductor to one leg of the antenna, but practically impossible to solder the shield to the other. To make things easy, use a "split bolt" or a two-hole terminal strip to make secure, removable connections, or place a chassis-mount, female F connector at the feed point and connect your coax with a standard, compression-style F connector. *Simple, and no more issues!*

For simplicity's sake I started using RG-6 for all of my coax-fed antennas years ago, but I was initially reluctant. An Internet search and in-person discussions with *bona fide* experts convinced me to forge ahead, and I've never looked back. More and more, hams are enjoying the benefits and the flexibility of good-quality, low-cost, RG-6 cable for feeding ham, scanner, and SWL antennas. Price, performance, and convenience are qualities that are rarely found together. RG-6 is a true triple-whammy!

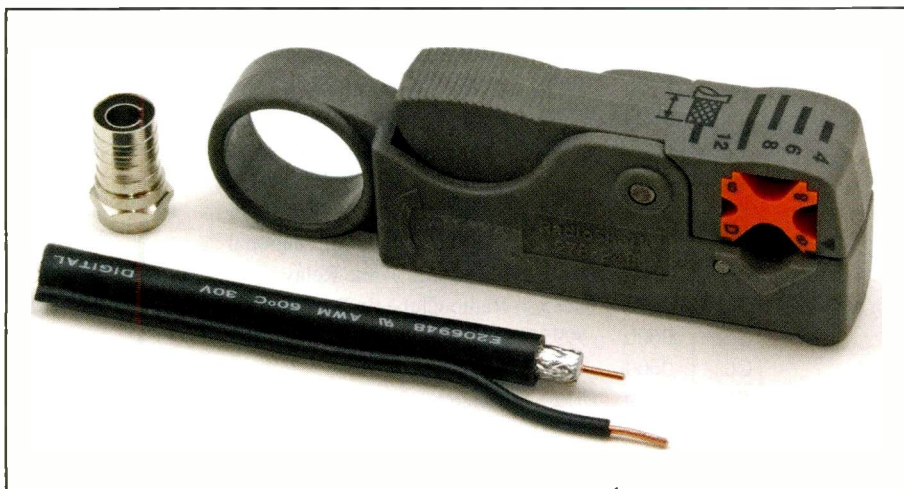


Photo C. To make attaching compression connectors a breeze, use a cable prep tool/stripper such as this RadioShack® model 278-248 (about \$15), which handles RG-59, RG-6, and RG-58 cables in a jiffy. The prepared RG-6 cable shown here is intended for satellite TV installations, so it features an insulated "pilot" wire that can be repurposed for a variety of ham uses. (Courtesy of KPC0ZZZ/NT0Z)

Typical Coaxial Cable Signal Loss in dB per 100 feet for Matched Loads

Freq.	RG-58	RG-8X	RG-8U	RG-6	RG-11
1 MHz	0.4	0.5	0.2	0.2	0.2
10 MHz	1.4	1.0	0.6	0.6	0.5
50 MHz	3.3	2.5	1.6	1.4	0.8



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Reflections III

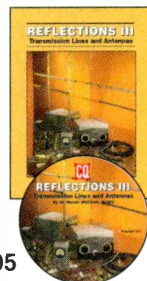
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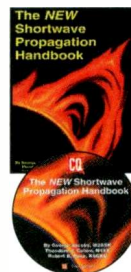
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BROADCASTING

World Band Tuning Tips

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

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

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

UTC	Freq.	Station/Country	Notes	UTC	Freq.	Station/Country	Notes
0000	9455	China National Radio	Mandarin	0400	11620	All India Radio	Urdu
0000	11780	Radio Nacional Amazonia, Brazil	PP	0400	7250	Channel Africa, South Africa	
0000	9490	Radio Republica, to Cuba		0400	9705	La Voix du Sahel, Niger	AA
0000	13745	Radio Thailand		0400	6010	La Voz de Concencia, Colombia	SS
0000	7375	Voice of Croatia		0400	5910	Radio Alcaravan, Colombia	SS
0000	7475	Voice of Greece	Greek	0400	7255	Radio Belarus	Belarus'n
0100	9870	All India Radio		0400	6165	Radio Chad	FF
0100	7460	Radio Aap ki Dunyya, USA	Urdu	0400	7120	Radio Hargeisa, Somalia	Somali
0100	19000	Radio Australia		0400	11895	Tartarstan Wave, Russia	RR
0100	5040	Radio Havana Cuba	SS	0400	7175	Voice of Broad Masses, Eritrea	Tigrinya
0100	6105	Radio Panamerica, Bolivia	SS	0400	7385	WHRI, Indiana	
0100	9640	Voice of Vietnam		0400	4960	VOA, Sao Tome Relay	
0100	5110	WBCQ, Maine		0400	11560	Radio Miraya FM, via Bulgaria	
0200	11815	Radio Brazil Central	PP	0500	5865	Radio Algerienne, Algeria	AA
0200	4825	Radio Cancao Nova, Brazil	PP	0500	6185	Radio Educacion, Mexico	SS
0200	4915	Radio Difusora Macapa, Brazil	PP	0500	4950	Radio Nacional Angola	PP
0200	9430	Radio Farda, USA to Iran	Farsi	0500	7220	Radio Romania International	
0200	4747	Radio Huanta 2000, Peru	SS	0500	9885	VOA, Sao Tome Relay	
0200	15285	Radio Pilipinas, Philippines		0600	4885	Radio Clube do Para, Brazil	PP
0200	5025	Radio Rebelde, Cuba	SS	0600	5995	RTV Malienne, Mali	FF
0200	9570	Radio Tirana, Albania	CC	0600	7250	Vatican Radio	various
0200	4055	Radio Verdad, Guatemala	SS/EE	0600	15120	Voice of Nigeria	
0200	11775	University Network, Anguilla		0600	4895	Radio Novo Tempo, Brazil	PP
0200	4775	Radio Tarma, Peru	SS	0700	5970	Radio Itatiatia, Brazil	PP
0300	6140	BBC, via South Africa		0900	4990	Radio Apinte, Suriname	DD
0300	4780	Radio Djibouti	AA	0900	4765	Radio Rural, Brazil	PP
0300	9855	Radio Liberty, USA	Uzbek	0900	6135	Radio Santa Cruz, Bolivia	SS
0300	5010	Radio Madagasikara, Madagascar	Malagasy	0900	4717	Radio Yura, Bolivia	SS
0300	7200	Radio Omdurman, Sudan	AA	0900	6060	Super Radio Deus e Amor, Brazil	PP
0300	7320	Radio Rossii, Russia	RR	0900	4755	The Cross, Micronesia	
0300	4826	Radio Sicuani, Peru	SS	0900	5765	Armed Forces Network, Guam	
0300	13600	Radio Sultanate of Oman		0900	6050	HCJB Global, Ecuador	SS
0300	9530	Trans World Radio, Swaziland	Amharic	1000	3330	Ondas del Huallaga, Peru	SS
0300	7505	WRNO, Louisiana		1000	5035	Radio Aparecida, Brazil	PP
0300	5050	WWRB, Tennessee		1000	6135	Radio Fides, Bolivia	SS
0300	6165	Zambia National Broadcasting		1000	5039	Radio Libertad, Peru	SS
0300	6015	ZBC Radio, Zanzibar		1000	3310	Radio Mosoj Chaski, Bolivia	SS
0300	6010	Radio Mil, Mexico	SS	1000	3380	Radio Municipal, Brazil	PP

UTC	Freq.	Station/Country	Notes	UTC	Freq.	Station/Country	Notes
1000	4700	Radio San Miguel, Bolivia	SS	1500	9345	Far East Broadcast, Philippines	Mandarin
1000	4775	Radio Tarma, Peru	SS	1500	15760	Kol Israel	Farsi
1000	6173	Radio Tawantinsuyo, Peru	SS	1500	9575v	Radio Medi Un, Morocco	FF
1000	4940	Voice of the Strait, China	CC	1500	11620	Radio Romania International	AA
1100	2325	ABC No. Territory Svc., Australia		1500	15735	Radio Romania International	Romanian
1100	9280	Family Radio, USA via Taiwan		1600	7390	Denge Mesopotamia	Kurdish
1100	4815	Radio El Buen Pastor, Ecuador	SS	1600	15345	Radio Cairo, Egypt	
1100	4781	Radio Oriental, Ecuador	SS	1600	9705	Radio Ethiopia	
1100	11520	Radio Taiwan International	Tagalog	1600	6050	Radio Kuwait	AA
1100	4790	Radio Vision, Peru	SS	1600	11600	Radio Libye, Libya	AA
1100	9835	Sarawak FM, Malaysia	Malay	1600	11725	Radio Tirana, Albania	AA
1100	5020	Solomon Is. Broadcasting Corp.		1700	12035	Radio Farda, USA to Iran	Farsi
1100	12085	Voice of Mongolia		1800	15720	Radio Japan, via Madagascar	
1100	4810	Radio Logos, Peru	SS	1800	15445	Radio Japan, via Germany	JJ
1200	6070	CFRX, Canada		1900	15190	Radio Africa, Equatorial Guinea	
1200	9430	Far East Broadcast, Philippines	Mandarin	1900	15340	Radio Havana Cuba	FF
1200	9770	KBS World Radio, South Korea	CC	1900	11610	Adventist World Radio, via Germany	
1200	9615	KNLS, Alaska		2000	9445	All India Radio	
1200	6130	Lao National Radio	Laotian	2000	11810	BBC, Ascension Is. Relay	
1200	9580	Radio Australia		2000	9410	BBC, Seychelles Relay	
1200	5995	Radio Australia		2000	11625	Vatican Radio	
1200	5740	Radio Marti, USA to Cuba	SS	2000	15580	VOA Botswana Relay	
1200	6055	Radio Nikkei, Japan	JJ	2100	6885	Galei Zahal, Israel	HH
1200	4750	Radio Republik Indonesia	II	2100	9395	Radio Algerienne, Algeria	AA
1200	7310	Radio Rossii, Russia	RR	2100	7105	Radio France International	FF
1200	9720	Radio Thailand		2100	15476	Radio Nac. Arcangel, Antarctica	SS
1200	7110	Thazin Radio, Myanmar	Burmese	2100	6090	Voice of Russia	PP
1200	9455	Voice of Russia	RR	2200	9580	Africa No. One, Gabon	FF
1200	9840	Voice of Russia	RR	2200	7550	All India Radio	
1200	5885	Voice of Russia, via Tajikistan		2200	9555	BSKSA, Saudi Arabia	AA
1200	6030	China National Radio	Mandarin	2200	6090	Caribbean Beacon, Anguilla	
1200	11665	Wai FM, Malaysia	Malayam	2200	6160	CKZN, Canada	
1300	5875	BBC, Thailand Relay		2200	6100	Intl. Radio of Serbia, via Bosnia	
1300	11670	All India Radio	Dari	2200	3955	KBS World Radio, South Korea	
1300	9610	Deutsche Welle, via Singapore	Mandarin	2200	7495	Radio Algerienne, Algeria	AA
1300	9680	KNLS, Alaska	Mandarin	2200	21740	Radio Australia	
1300	5940	Radio Australia		2200	7580	Radio Farda, USA to Iran	Farsi
1300	9965	Radio Australia, via Palau		2200	6180	Radio Nacional Amazonia, Brazil	PP
1300	9360	Radio Liberty, USA, via Saipan	RR	2200	15345	Radio Nacional, Argentina	SS
1300	9595	Radio Nikkei, Japan	JJ	2200	11605	Radio Taiwan International	JJ
1300	7460	Radio Thailand	Thai	2200	7345	Radio Tunisienne, Tunisia	AA
1300	15630	Voice of Greece	Greek	2200	7450	Radiofonikos Makedonias, Greece	Greek
1300	9525v	Voice of Indonesia		2200	11860	VOA, Philippines Relay	
1300	5950	Radio New Zealand International		2200	7255	Voice of Nigeria	
1300	15105	Bangladesh Betar		2230	7290	Radio PMR, Moldova	
1400	17615	BSKSA, Saudi Arabia	AA	2300	4319u	Armed Forces Net., Diego Garcia	
1400	9420	China National Radio	KK	2300	9795	Far East Broadcast, Philippines	
1400	9635	Intl. Radio of Serbia		2300	7290	IRRS, via Romania	
1400	15760	Kol Isreal	Farsi	2300	8989	Pescador Preacher, Nicaragua	SS
1400	11660	Radio Australia		2300	9855	Radio Australia, via UAE	
1400	11850	Radio Liberty, USA, via Germany	RR	2300	7520	Radio Farda, USA, via Sri Lanka	Farsi
1400	15560	Radio Sultanate of Oman		2300	5960	Voice of Turkey	
1400	9975	Trans World Radio, Guam	Mandarin	2300	9665	Voz Missionaria, Brazil	PP
1400	11605	Radio Free Asia, USA, via Taiwan	VV	2300	5950	Voice of Turkey	
1500	11955	Adventist World Radio, Austria	Turkish	2300	4955	Radio Cultural Amauta, Peru	SS
1500	15255	Adventist World R., via Sri Lanka					
1500	15505	Bangladesh Betar					

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New Procedure: Pop'Comm September 2013 Reader Survey

Your feedback is important to us at *Pop'Comm*. You'll notice there is **no longer a pull-out card** to fill in. Instead:

- **Cut out or photocopy** the *Popular Communications Survey* card below.
- **Circle the appropriate numbers** corresponding to this month's questions.
- **Place it in a stamped envelope** and mail to: August Reader Survey, Popular Communications, 25 Newbridge Rd., Hicksville, NY 11801.

As always, 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 name, mailing address, and other contact information.**

Please write your response to our "comment" question on a **separate piece of paper** and include your name. Send it to us in the envelope with the Reader Survey card.

Last, but not least: You can take this survey online. Link to <<http://svy.mk/19KcHmA>>.

Are you now, or have you ever been a member of the Citizens Band radio community? (Choose one.)

- Yes 1
No 2

How often do you get on Citizens Band? (Choose one.)

- Almost daily 3
Mostly weekends 4
A couple of times a week 5
Not very often 6
Never 7

If you're a fallen-away CBER or have never been on CB, what is your level of interest today? (Choose one.)

- I'm curious and will listen on the 27-MHz channels 8
I will pull out my old radio and give CB a try — 2013 style 9
I am a longtime CBER who never left the hobby 10
I have no interest in returning to, or exploring CB — *period!* 11

Does the fact that perfectly operable, used CB transceivers are widely available and inexpensive make the prospect of getting on Citizens Band more appealing? (Choose one.)

- Yes 12
No 13

Do you feel the FCC should flex more of its regulatory muscle on CB? (Choose one.)

- Yes, it's long overdue 14
No, the FCC needs to be more diligent on the amateur bands before policing CB ... 15
What FCC "regulatory muscle?" That's a joke, right? 16

What CB radio or radios have you owned — now or in the past? (Choose all that apply.)

- Base station..... 17
Mobile (in-vehicle radio)..... 18
Handi-talkie 19
Other 20

What company or companies do you consider leaders in Citizens Band radio, antennas, and accessories? (Please comment on a separate piece of paper, and be sure to include your name.)

Take This Reader Survey Online

You can participate in this reader survey via the Internet. Simply link to <<http://svy.mk/19KcHmA>> and fill out the *September 2013 Pop'Comm Reader Survey*. It's quick and easy.

And the Winner Is . . .

For participating in the *Pop'Comm Readership Survey*, the winner of a free *Pop'Comm* subscription or extension is **Howard C. Wilson**, of **Des Moines Iowa**, who commented about all the friends he has made on amateur radio and Citizens Band. *Congratulations, Howard! Please keep us posted on your hobby communications activities. — KPC6PC*

POPULAR COMMUNICATIONS

Survey Response for Issue: _____

Circle the numbers below that correspond to your answers.

Copy and mail to: Popular Communications, 25 Newbridge Rd., Hicksville, NY 11801.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40

Name _____ Call Sign _____

Address _____

City _____ State _____ Zip _____

E-mail _____

By Jason Feldman,
WPC2COD

Yaesu Newest HF Transceiver Adds to FT DX Line

Yaesu bolstered its FT DX line of amateur radio transceivers with a Dayton introduction of the FT DX 1200, which is designed for the casual operator and occasional contester at an affordable price.

Covering the 160- to 6-meter bands using SSB, CW, FM, and AM (25-watts carrier), the 14.4-inch-wide by 4.5-inch-high by 12.3-inch-deep and 20.9-pound transceiver is stuffed with a sensitive receiver that covers the 30-kHz to 56-MHz bands and transmitter that produces a 100-watt signal.

On the front face of the case a 4-inch, Thin-Film-Transfer (TFT), full-color screen will give users a convenient view into the radio's working functions. The display's features include:

- A block diagram that displays RX signal path
- Choose between analog type or bar graph meter
- Separate VFO-A, VFO-B transmit and receive frequencies
- Level indicator
- Spectrum scope with six different bandwidth options: 20, 50, 100, 200, 500 hHz, and 100 MHz. In addition, TX and RX markers can be displayed to aid users while operating during split operation
- Optional Audio Frequency Fast Fourier Transform (AF-FFT) scope. With this scope, the audio characteristics of the received signals; the effect of adjusting the RX IF filter performance; and utilizing the QRM rejection features may be visually observed.

On the left side of the display are six cursor keys that are used frequently during normal operation. The main tuning knob is made with machined aluminum and users can set the torque feel to their preference.

Inside the case is a triple conversion receiver circuit that has a 32-bit, 300-Mhz, floating decimal point digital signal processor (DSP) made by Texas Instruments® and eight band-pass filters to help reject QRM and QRN.

In addition, the IF shift, IF width, and contour functions also help eradicate harmful interference. During IF shift within normal bandwidth the pass band area can be moved relatively, while the IF width function can make pass band narrower with one touch. The contour function can reduce or peak the desired signal partially or continuously across the pass band.

Yaesu also built a digital noise reduction circuit that provides 15 separate parameters. The noise reduction constants may be set to the optimal working point by varying the 15-step parameters according to the actual noise with the high-frequency band.

The high-Q IF Notch circuit has a steep attenuation characteristics of 70 dB or more, according to Yaesu. The damping characteristics can be switched to wide or narrow bandwidth, and the user can set the attenuation mode. Roofing filters of 3, 6, and 15 kHz are fitted before the first IF which consists of a 40-MHz TCXO (+/- 0.5 ppm, -10°C ~ +60°C).



Photo A. The front face of the Yaesu FT DX 1200 shows off its machined aluminum tuning knob and 4-inch TFT display. (Courtesy of Yaesu)

A three-step intercept point optimization (IPO) can be selected by the operator while changing bands by pressing a button on the front panel. The IPO enables users to set the gain of the RF amplifier.

Transmitting your voice or CW signals is a modulation circuit that utilizes digital variation operational modulation that creates a clear signal. The circuit has a parametric equalizer that makes possible adjustment of the TX audio quality by aligning the TX band audio spectrum. The three-stage parametric equalizer can alter the low, mid, and high part of audio separately.

The SSB Speech Processor uses IF digital signal processing to increase the average power of the important speech spectrum and reduce the TX power of the less significant components. Operators can adjust the compression level in the menu mode to adapt the transmitted SSB signal to best suite their voice characteristics, propagation conditions, and pile-up demands.

During CW operation, an audio peak filter function has an audio peak at the signal frequency and can be finely tuned to improve the signal-to-noise ratio and readability of CW signals. Transmitting CW, the side tone pitch frequency can be adjusted between 300 to 1050 Hz. Other CW features include:

- Dial-step setting
- CW SPOT feature
- CW Full Break-in
- CW "VOX" delay is adjustable
- CW mode reversal (USB or LSB)
- CW keying available during SSB operation
- Separate KEY jacks in the front and rear panel
- Electronic keyer included
- Four-channel message memory (50 characters each)
- Automatic "Beacon" keyer mode

There are two antenna inputs located on the rear panel of the FT DX 1200. Antenna connection selections are memorized and recalled when changing bands. It is possible to use antenna 1 for transmit and antenna 2 for receive. On receive a high-speed automatic antenna tuner is included and uses LC switching. It has a 100-channel memory and tuning data is automatically memorized to reduce tuning time when changing frequency.

The FT DX 1200 is available now at your local Yaesu dealer. The MSRP of the FT DX 1200 is \$2,400. For more information contact: Yaesu USA, 6125 Phyllis Drive, Cypress, CA 90630. Phone: (714) 827-7600. Website: <<http://www.yaesu.com>>.

A Yard-Long Trip Down Memory Lane

By Bruce A. Conti,
WPC1CAT

“The relatively low-cost Yard console or ‘board’ became a mainstay of small-market AM and mono FM radio stations from the late ‘50s through the ‘70s.”

TThe Gates Radio Company of Quincy, Illinois, was a manufacturing pioneer in the early days of the radio broadcasting industry. Founded in 1922 when legacy AM radio stations like KDKA, KYW, and WBZ were first licensed, Gates produced radio receivers, transmitters, and studio equipment including turntables and audio consoles.

In 1957 the Gates Company was sold to Harris Corporation, but the iconic Gates name was kept until 1977 when retired in favor of Harris Broadcast. Perhaps the most recognized piece of equipment ever manufactured by Gates was the Yard broadcast studio console, first introduced as a six-position model in 1954. It was later upgraded to eight mixing channels, advertised as the “new” Yard in 1959, model number M-5526.

For better or worse, the relatively low-cost “new” Yard console or “board” became a mainstay of small-market AM and mono FM radio stations from the late ‘50s through the ‘70s, **Photo**

A. The first experience for many radio personalities past and present was on an M-5526 Yard.

My first — and only — radio job was at 91.7 WRBB in Boston, **Photo B**, during the late ‘70s where the Yard functioned as the primary air studio board. The Yard was noted for its 6-inch, low-profile sleek industrial design with a front panel consisting of a single row of audio level control knobs and associated cue/program knife switches, along with a large VU meter.

In fact, the console measured only 1-yard long, thus the name, although according to the 1959 Gates catalog the name was suggested by a design engineer because the audio switching capability was like the ease of switching cars in a modern electronically-controlled railroad yard.

The 1-foot-deep chassis behind the controls contained 21-tube circuitry including 5879 or later 6267 vacuum tube preamplifiers on state-of-the-art printed wiring boards. (**NOTE:** *Despite the typical “no food or drink” policy of*



Photo A. Restoration of a classic Yard board in progress is shown here with the top opened. (Courtesy of Lane Lindstrom, “I Take Pictures of Transmitter Sites” Facebook group)



WRBB 104.9

we rock boston better

Home Listen Live Station Info Get Involved! On-Air Schedule Music Reviews Request a DJ Events Calendar Contact

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Thanks for your interest in joining the WRBB team! To receive updates & info emails from specific WRBB departments, fill out the form at the bottom of the page. If you're interested in having your own radio show and have NOT previously held a show with us, please contact our Engineer (engineer@wrbbradio.org) to schedule a clearance.

Get Involved!

On-Air Schedule

Station Info

Photo B. The “board” at WRBB in Boston looks a lot different today than when Bruce A. Conti was on the staff there in the late 1970s. Long gone is the Yard, which was the mainstay of many small radio stations at the time. (Internet screen grab <<http://wrbbradio.org>>)

most broadcast studios, the flat top of the Yard gained a reputation as a convenient coffee cup warmer due to the heat rising from vacuum tubes. – WPC1CAT)

Gates made a specific distinction between printed wiring and the then less-reliable printed circuit boards. Printed wiring was defined as etching heavy copper wiring on formica using a manufacturing process implemented by specialized machinery at the Gates factory.

FCC Third Class License

For many of us engineering types the Yard is part of a bygone era in radio broadcasting. Back then, members of a radio station air staff would obtain an FCC third class operator license with the broadcast endorsement, **Photos C and D.**

Before the advent of computer automation, the person on the air or manning the station may have also maintained the transmitter log, turned the transmitter on or off, taken readings, and adjusted the transmitter output when the engineer wasn't on duty. The *Broadcast Operator Handbook* published by the FCC and supplementary radiotelephone license course books sold by independent publishers helped prospective air talent prepare for the FCC license examination.

However, the broadcast endorsement and operator classes were phased out beginning in 1979 due in part to government deregulation as well as automation, replaced by a general class license in 1981. By then a license was no longer required to be on the air at a radio station.

Test Your Knowledge

Here are some FCC third-class-exam sample multiple choice questions from the *Broadcast Operator Handbook*. Answers with explanations are listed at the end.

1. A standard AM broadcast station determines the operating power by the direct method. The meter indications which must be routinely observed and entered into the operating log are:

- (a) plate voltage and current, and the RF transmission line
- (b) plate voltage and current, filament voltage and modulation
- (c) plate voltage and current, and antenna or common point current
- (d) plate voltage and current, and peak modulation
- (e) plate voltage and current only



Photo C. This is a sample of an FCC third class license that was once required for on-air personnel at a radio station. (Courtesy of WPC1CAT)

Elements of a Directional AM Station

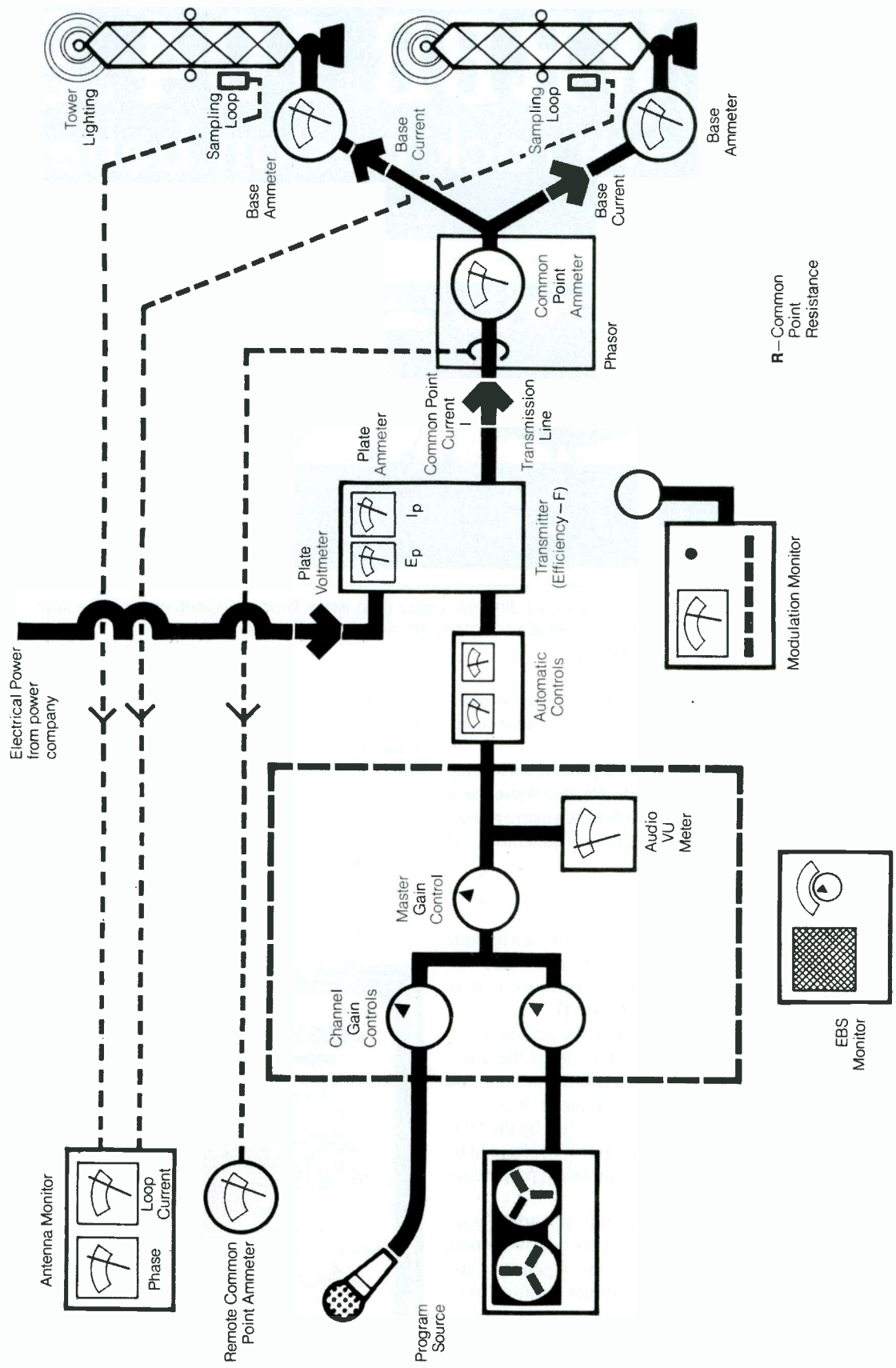


Photo D. Diagram of a typical AM radio station layout showing the locations of various meters for measuring operating parameters. (From FCC Broadcast Operator Handbook, March 1976)

2. Which of the following are not required to be recorded in the operating log?

- (a) Antenna ammeter reading
- (b) Plate voltage meter reading
- (c) Plate current meter reading
- (d) Modulation monitor meter reading
- (e) The time the station ceases to supply power to the antenna

3. A third class operator on duty at a broadcast station is authorized to:

- (a) Adjust external controls to compensate for voltage fluctuations in the primary power supply.
- (b) Make transmitter adjustments to maintain the correct operating frequency.
- (c) Repair an inoperative transmitter in an emergency.
- (d) Replace defective final amplifier tubes.

(e) Make any necessary minor adjustments of internal transmitter controls.

4. If both the antenna ammeter and remote antenna ammeter of an AM broadcast station become defective, the operating power must then be determined by the:

- (a) RF transmission line meter reading method
- (b) Power meter reading method
- (c) Indirect method
- (d) Final amplifier method
- (e) Percentage variance method

5. The operating log must contain:

- (a) The names of all sponsors of a sponsored program
- (b) The time of all recorded program announcements
- (c) An entry of the time the transmitter begins to supply power to the antenna

This Month in Broadcast History

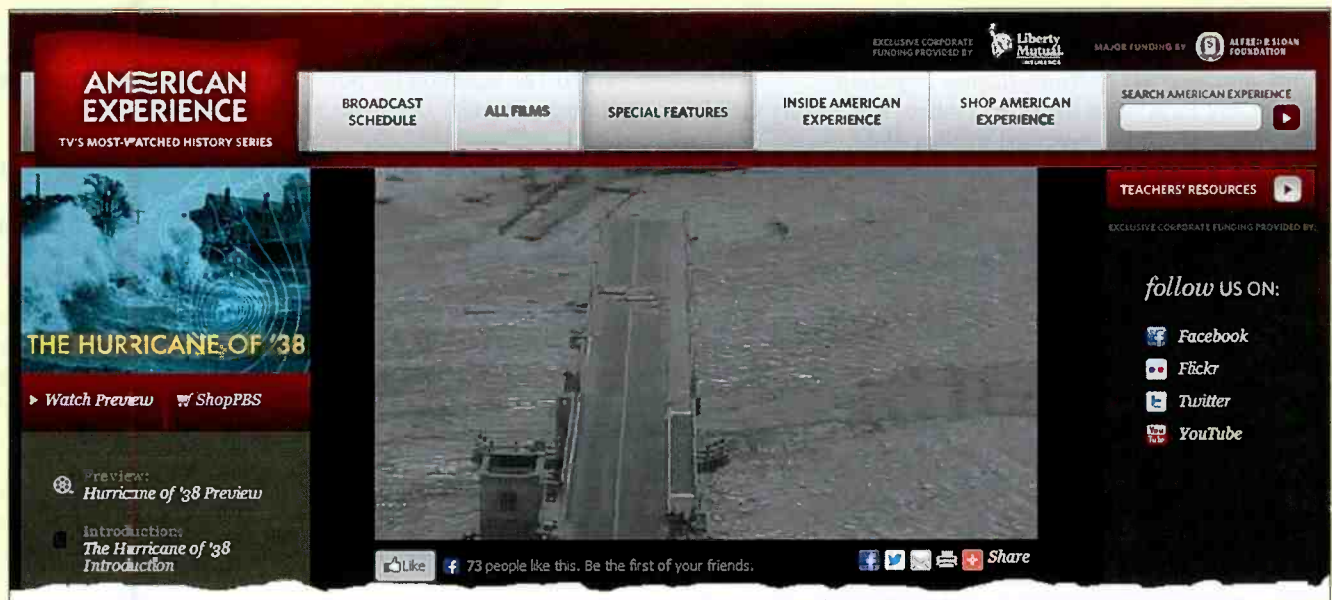


Photo A. "Listeners didn't take seriously radio forecasts of a major ocean storm approaching the northeast," writes Bruce A. Conti — a deadly storm chronicled in the American Experience episode titled "The Hurricane of '38" <<http://to.pbs.org/14oHyBw>>. (Internet screen grab)

75 Years Ago (1938): Listeners didn't take seriously radio forecasts of a major ocean storm approaching the northeast before an unnamed hurricane slammed Long Island and New England. (**WATCH:** A preview of American Experience's "The Hurricane of '38" on PBS <<http://to.pbs.org/14oHyBw>>, **Photo A.** – WPC1CAT.) Meanwhile overseas, the BBC broadcast live reports from UK Prime Minister Chamberlain's address to Parliament as the Sudetenland Crisis unfolded with Europe on the brink of World War II. Live broadcasting from within Parliament was not allowed, so reporters transcribed and relayed the speech to radio announcers as it happened, a first for the BBC.

50 Years Ago (1963): "The Huntley-Brinkley Report" on NBC and "The CBS Evening News with Walter Cronkite"

weeknight television network news programs expanded from 15 minutes to a half hour with the start of the new TV season.

"Blue Velvet" by Bobby Vinton reached number one on the "40 Star Survey" at Radio Seventy-Wonderful WHB Kansas City.



25 Years Ago (1988): The National Association of Broadcasters came out against an FCC proposal to issue national licenses for frequencies in the new AM expanded band (1610 to 1700 kHz). The FCC proposal would have allowed a single broadcaster to operate as many stations as desired nationwide on a single frequency, similar to a synchronized transmitter system for national coverage implemented in some European countries.

- (d) The time station identification announcements were given
- (e) Notations concerning maintenance of the transmitter

6. *The Commission's rules specify that the operating power shall not exceed the limit of:*

- (a) 125 percent of authorized power
- (b) 120 percent of authorized power
- (c) 115 percent of authorized power
- (d) 110 percent of authorized power
- (e) 105 percent of authorized power

7. *Operating power at an AM broadcast station, when determined by the direct method, is computed or obtained from:*

- (a) The sum of the antenna current plus the plate current.
- (b) The square of the antenna current times the antenna resistance.
- (c) The antenna current times the square of the antenna resistance.
- (d) The plate voltage times the plate current.
- (e) The calibrated power meter.

8. *An operator at a broadcast station not operated by remote control must post his operator license or permit:*

- (a) At any location at the station where it is readily visible.
- (b) Where it can be inspected by the public.
- (c) At any place where it is available for inspection by FCC representatives.
- (d) In the main studio.
- (e) At the transmitter or extension meter location.

9. *An AM broadcast station is not permitted to modulate the carrier to:*

- (a) 0 percent
- (b) 50 percent on positive peaks of frequent recurrence
- (c) 85 percent on positive peaks of frequent recurrence
- (d) 105 percent on negative peaks of frequent recurrence
- (e) 120 percent on positive peaks of frequent recurrence

10. *A radio broadcast station operator discovers that his operator permit had expired two weeks previously. The operator may not continue to operate the transmitter:*

- (a) Until the station manager notifies the FCC
- (b) Until a renewed permit has been issued
- (c) Until he has been re-examined
- (d) Unless an application for renewal is filed immediately and a copy posted
- (e) Unless certified to do so by a first class operator

Answers

1. (c) Plate voltage and current along with antenna current or common point current are needed to calculate power by the direct method using the formula $P = I \times R$ where P is the power, I is antenna or common point current, and R is the antenna resistance. The RF transmission line meter reading of (a) is associated with FM. Filament voltage and modulation is not required to be logged. Normally the operator wouldn't be required to calculate power, but instead would maintain an AM transmitter to within specified limits of plate voltage and current.

2. (d) As noted in question 1, modulation is the only one of these readings not required to be logged.

3. (a) Adjustment of frequency, and/or adjustment of controls inside the transmitter along with any repairs could only be performed by a qualified engineer. The operator was only allowed to adjust external, i.e. front panel, controls to compensate for power fluctuations.

4. (c) An AM station which cannot measure its antenna current is physically unable to calculate power by the direct method, and must therefore resort to the indirect method using the formula for power, $P = I \times E \times F$, where P is the power, I is the plate current, E is the plate voltage, and F is the transmitter efficiency factor provided by the engineer. (See questions 1 and 7 about the direct method.)

5. (c) is the correct answer. (a), (b), and (d) are program log entries, and (e) is a maintenance log entry.

6. (e) 105 percent is the maximum operating power deviation allowed.

7. (b) The equation for power, $P = I \times R$ is used to calculate operating power by the direct method. See question 1.

8. (e) Licenses were typically posted on a wall at the transmitter or extension meter location. If the operator worked at more than one station, then it was necessary to apply for duplicate licenses from the FCC to be posted at each location.

9. (d) Neither AM nor FM stations may exceed 100 percent on negative peaks of frequent recurrence. The limit is 125 percent on positive peaks for AM stations. Over-modulation not only distorts the signal, but it can cause harmful interference to other stations.

10. (b) A third-class operator license was good for five years. An operator would have continuing authority only when an application for renewal was submitted prior to the expiration date of his license.

Broadcast DX Loggings

September marks the beginning of the new AM broadcast DX season, although for many of us it's a year-around pursuit.

"It totally amazes me the stuff you guys can hear on the coasts," writes Rick Barton. "The southwest is a mixed bag. On the one hand, there are vast areas in the southwest with no power lines or other obstructions and noise sources, which is a big part of my enjoyment of camping and DXing, but with such vast uninhabited areas there are fewer radio broadcasters, too. On a line from Flagstaff, Arizona, to roughly Green River, Utah, there is only one AM station, 760 KTBA Tuba City, Arizona, in the Navajo Nation, and maybe you could count 1340 KPGE, Page, Arizona."

Several DXers have reported that radio station ZIZ on 555 kHz from St. Kitts seemed to be off the air. Vere Galloway at ZIZ confirmed that the station is indeed off. "The tower is cordoned," said Galloway. "We have to take it down. Should be back up later in the year." ZIZ is the last of the split frequency AM radio stations that were once numerous across the dial in

the Caribbean and Latin America. ZIZ had just returned to the AM airwaves over the winter after being off several months for maintenance.

Across the Dial

This month's selected logs are from northeast DX hotspots and courtesy of Rick Barton in the desert Southwest. All times are UTC.

550 YVKE, Caracas, Venezuela, at 0700 over/under co-channel WSJW; end of news, then a long jingle, "Radio Mundial ... todo Venezuela ..." (Conti-NH)

570 KNRS, Salt Lake City, Utah, at 0320 promo, "... on 105.7 FM and 570 AM." (Barton-AZ)

600 KOGO, San Diego, California, at 1110 an excellent signal with the *Wall Street Journal* report, promo for Rush Limbaugh, ID as "News/Talk 600, Ko-Go." (Barton-AZ)

670 KLTT, Commerce City, Colorado, at 1100, "This is AM 670 KLTT and KLTT HD Commerce City-Denver." (Barton-AZ)

730 HJCU, Bogotá, Colombia, at 0101, chimes, "en Melodia" ID; poor to fair, but dominant. (Connelly-MA)

740 ZYH446, Salvador, Brazil, at 2334 familiar "Close Encounters" 5-note theme of Radio Sociedade da Bahia, Portuguese talk; mixed with an unidentified Spanish-language religious station. (Connelly-MA)

760 WORA, Mayagüez, Puerto Rico, at 0001, "Primero por las noticias ... en Puerto Rico," over others. (Connelly-MA)

780 YVMN, Coro, Venezuela, at 0500 over/under co-channel WBBM; jingle with "patrimonio de la comunidad" slogan, then a nostalgic vocal. (Conti-NH)

800 PJB, Kralendijk, Bonaire, at 0100 "Radio Transmundial" and Spanish religious talk; good/dominant. (Connelly-MA)

810 ZNS3, Freeport, Grand Bahama, at 0101 Caribbean-accented man with live awards ceremony for national junior regatta champions, mention of a captain from Ragged Island; mostly over WGY. (Connelly-MA)

880 KHAC, Tse Bonita, New Mexico, at 1300, "KHAC Window Rock-Gallup." (Gallup is in northwest New Mexico, Window Rock in Arizona; both part of the vast Navajo Nation.) Then heard "The Ballad of the Green Berets" sung in Navajo after the hour. Never heard that version before! (Barton-AZ)

900 Radio Progreso, San Germán, Cuba, at 0300 ID, "Radio Progreso, cadena nacional, la onda de la alegría, transmitiendo desde la Habana, Cuba, primer territorio libre en America." (Connelly-MA)

980 KFVB, Los Angeles, California, at 1430, "KFVB News/Talk 980," to local weather and traffic report. Strong and alone on channel. (Barton-AZ)

1060 Radio 26, Jovellanos, Cuba, at 0600 over/under KYW; canned ID with piano music, "Esta es Radio 26, desde Matanzas, Cuba." (Conti-NH)

1080 Radio Surco, Cuba, at 0400 good on top of WTIC; slow orchestral music, ID and program details in Spanish, Cuban anthem, then another ID. "Transmite CMIP Radio Surco, desde Ciego de Avila,

capital de la locución Cubana." Not heard on 1080 before (last time was on 1140 kHz). (Saylor-PA)

1140 Radio Surco, Morón, Cuba, at 0300 fair; canned ID with electric organ/synth, "Esta es CMIP Radio Surco, desde Ciego de Avila, capital de la locución Cubana." (Conti-NH)

1150 Radio Bayamo, Bueycito, Cuba, at 0400 over/under co-channel WWDJ Boston; choral national anthem and doorbell chimes. (Conti-NH)

1170 KCBQ, San Diego, California, at 0150 promo/ID, "... right here on 1170 KCBQ San Diego and worldwide at www.kcbq.com." (Barton-AZ)

1200 KPSF, Cathedral City, California, at 1229 in and out during local sunrise with Palm Springs weather. First log of this station from the "Inland Empire." (Barton-AZ)

1320 KXST, Las Vegas, Nevada, at 0457 ID, "The Fan, KFNZ Salt Lake City." (Barton-AZ)

1330 KGAK, Gallup, New Mexico, at 0025 a good signal with country gospel music and announcements in Navajo language. (Barton-AZ)

1420 KMOG, Payson, Arizona, at 1325 country music and salute to those who serve in military, ID as "Rim Country Radio, KMOG." A couple of hours away, this is often audible here during the day, but blasting in at the moment like a local. (Barton-AZ)

1430 KLO, Ogden, Utah, at 0445 a strong steady signal with short-wave radio's infamous "Brother Scare" (Brother Ralph Stair). At 0820, "World Class Talk Radio, KLO." (Barton-AZ)

1520 KOKC, Oklahoma City, Oklahoma, at 0229 "Visiting Angels" and other spots in string. Before local sunset an armchair signal, but later going to extremes from a needle-bending signal to deep fades. (Barton-AZ)

1560 KNZR, Bakersfield, California, at 0755 on break from Coast-to-Coast program with local spots and "Cactus Valley" mentions. (Barton-AZ)

1610 Caribbean Beacon, The Valley, Anguilla, at 0000, "You're watching the University Network, the number to call is (800) 338-3030." black gospel music followed; good. (Connelly-MA)

1620 Radio Bayamo, Bayamo, Cuba, at 0500 over/under co-channel Radio Rebelde; canned ID and doorbell chimes parallel 1150 kHz. (Conti-NH)

Broadcast DXers and Their Equipment

Rick Barton, KPC7RAT, El Mirage, Arizona, operating Hammarlund HQ-120x, HQ-200, Hallicrafters S-77A, and Zenith 5J-217 receivers with random wire and Slinky antennas.

Mark Connelly, WA1ION, Cape Cod, Massachusetts, using the Perseus SDR and a north-null cardioid-pattern SuperLoop measuring 15- x 20-meters with a 1.5-meter base height.

Bruce Conti, WPC1CAT, Nashua, New Hampshire on the WinRADiO Excalibur SDR with an MWDX-5 phasing unit and 15- x 23-meter variable termination SuperLoop antennas 60° northeast and 180° south.

Brett Saylor in central Pennsylvania using the Perseus SDR with a 16- x 36-foot SuperLoop antenna pointed at 180°.

- 73 and Good DX!

Navigating Canada's Version of The FAA — NAV CANADA



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

“With operations coast to coast to coast, NAV CANADA provides just about any information a pilot would need . . .”

The equivalent of the Federal Aviation Administration, our northern neighbor's NAV CANADA is Canada's “civil air navigation services provider, [and] is a private sector, non-share capital corporation financed through publicly-traded debt.

“With operations coast to coast to coast, NAV CANADA provides air traffic control, flight information, weather briefings, aeronautical information services, airport advisory services, and electronic aids to navigation.”

When I was at Northway, Alaska (ORT of PAOR) in 2001, I worked with NAV CANADA daily with aircraft into and out of Alaska. The majority of the pilots flying in from Canada had to land at Northway or Geiger Lake, south east of Northway, for customs.

This was before extensive use of the Internet, so we printed out the aviation weather maps for pilot weather briefings for those southeast bound into Yukon or British Columbia before reentering the lower 48 states, normally by way of Washington, Idaho, or Montana.

The few aircraft entering Alaska that didn't have to stop at Northway were either larger aircraft that would overfly Canada nonstop — land-

ing at Tok, Fairbanks or Anchorage without dealing with customs.

NAV CANADA's Weather Website

The portion of the site used by U.S. Flight Service is shown in **Figure 1**, <<http://bit.ly/123eBJC>> — NAV CANADA's Weather Website.

At first, this site can give you sensory overload, but in a while, using it becomes rather intuitive. Since this site is “read-only” there's no way the average scanner enthusiast can enter a portion of the site they shouldn't be in — nor can they screw anything up.

To use this page, the first thing you should look at is the “Executive Summary,” which is accessible using the link on the upper right of the page. This mini-tutorial gives you an idea of what to expect in using the site. Here are the highlights:

- The default menu page is entitled **Forecasts and Observations**. It is organized in the same way as the old Aviation Weather Website — by type of weather product — alphanumeric (text), charts, and imagery.
- The other selections on the black, hori-

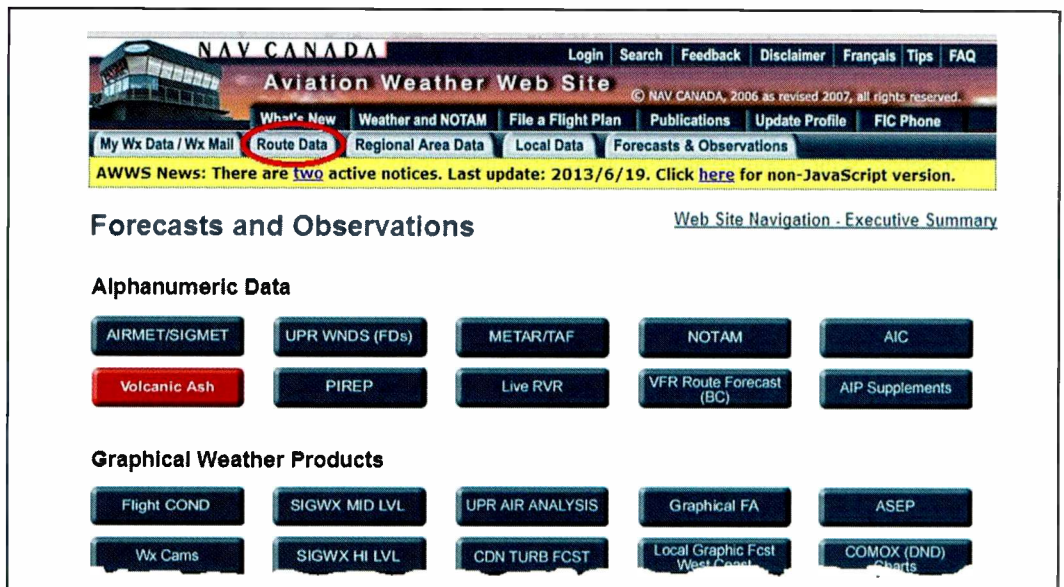


Figure 1

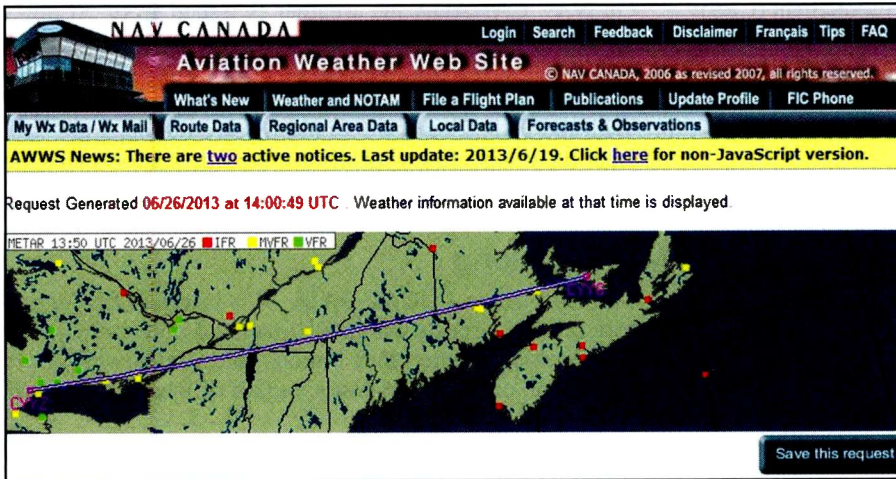


Figure 2

zontal main menu bar are organized by the type of flight for which you are planning: **Route Data** (in Figure 1 circled in red), **Regional Area Data**, and **Local Data**. All of these functions are new and give the user more flexibility in retrieving aviation weather information from the Internet. Canned routes and canned data are a thing of the past.

- **Route Data:** Here you can define and save your own routes for subsequent recall and select the type of weather data that you want to view, Figure 2. All selected weather information within 50 nautical miles either side of track will be returned to you. You will need to register as a user before you can save a route so that the website will subsequently be able to recognize you and retrieve the data that you have requested. When you log on next you will be able to retrieve your saved routes by going to **My Wx Data**.
- **Regional Area Data:** weather information is organized by graphic area forecast coverage area. You can select the type of data that you prefer to view. Weather data for a very large area will be retrieved for you, so be careful about how much of it you want to print.
- **Local Data:** all user selected weather information within 50 nautical miles of

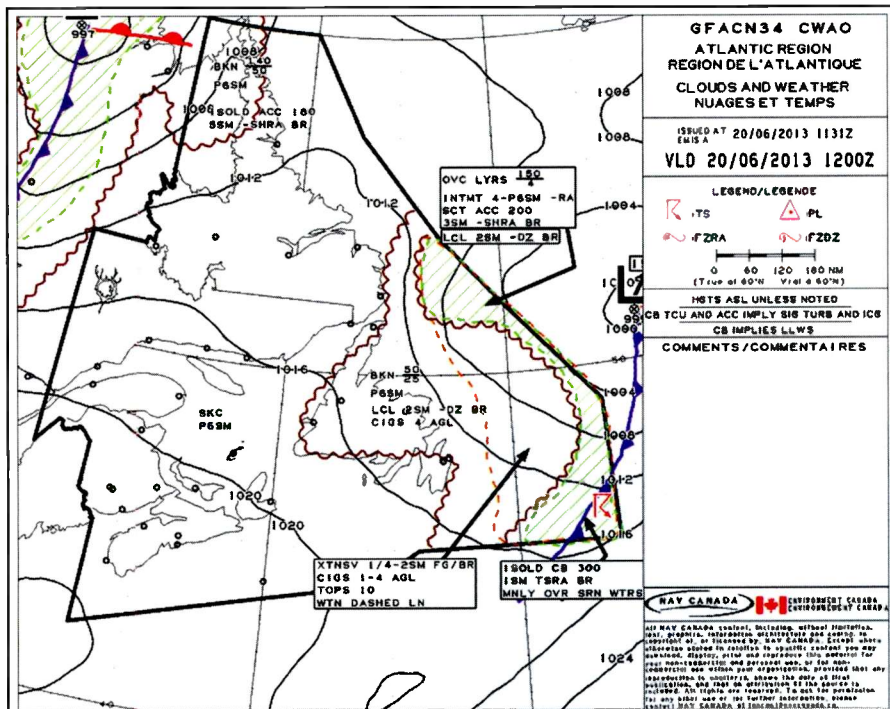


Figure 3



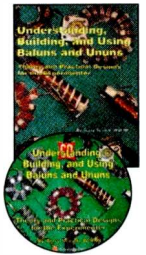
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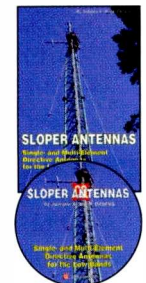
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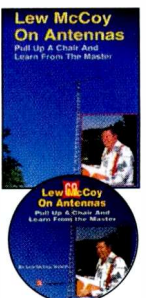


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any aerodrome in the Canada Flight Supplement (CFS) can be retrieved by using this menu selection.

- For online help during your session use the **Tips** (button) function for guidance. It can be found in the top right hand corner.

Accessing the Page's Information

For grins, I wanted to check the en-route weather from Toronto, Ontario (CYYZ) to Charlottetown, Prince Edward Island (CYYG). When you click on the ROUTE DATA tab you place the departure and destination points at a minimum.

What is nice is that you can use the airport identifier, the latitude/longitude, or even the city names to assist. You must click the box down the page stating if you *do* or *do not* wish to read Notices to Airmen (NOTAMs). There are numerous options you can request, but remember the more you want, the longer it takes to retrieve the information. After you scroll to the bottom of the page press SUBMIT.

Understanding What You See

After a moment the page appears showing the route graphically — at the top — with the weather information requested. The weather reports are in the format that FSS (Field Service Station) controllers use. It is very easy to read, but I have one problem, which I guess is the result of my having used the FAA format for so many years:

On NAV CANADA the weather is issued from 50 miles around each airport, so the first weather on this example isn't at CYYZ but at Borden, Ontario (CYBN). Since there are no airports past CYYG, there are no weather reports afterward.

With the FAA format we would receive the departure and destination weather first with all en-route weather following the destination.

Moving Along . . .

The third tab — LOCAL DATA — is just that. It's for one airport, plus all airports within a 50-nautical-mile radius.

As you explore the other buttons, the next lower 10 alphanumeric displays and just a variant of what I've already discussed.

Figure 3 gives an example of graphical weather for pilots — in this case the Atlantic Region of Canada. As you can see, even the warm and cold fronts symbols are the same as those used in the U.S.

Figures 4 and 5 show something I wish we had here in the lower 48 and Hawaii — weather cameras. (*NOTE: The webcam linked to in **Figure 5** is a Gjoa Haven, Nunavut above the Arctic Circle in Canada, with a southwest view enlarged. Visit <<http://bit.ly/18g3DHZ>>. — KPC4KGC*)

Clicking on one of the many webcams gives you at least a cursory view of various airports where no weather observations or air traffic control towers exist. You may have noticed I said

Grab Your Scanner and Listen 'Up!'

While we're getting into *what* you'll likely be hearing, here's a tutorial on *where* to listen.

To find aviation frequencies specific to your local airport you'll need a scanner that covers from 118.0 to 135.975 MHz.

If you'd rather listen online, you're in luck. There are many websites from which to choose. Here is a couple to get you going: <<http://www.liveatc.net>> and <<http://www.radioreference.com>>.

Often, you'll need to know the ARTCC (Air Route Traffic Control Center) code for the airport you're interested monitoring. A comprehensive list of codes for facilities around the world can be found at <<http://bit.ly/MGUk8P>>. Use the IATA Code (International Air Transport Association) search function to find the ARTCC code for the airport you're seeking.

Here are some basic frequencies in MHz to keep handy:

- 121.5 – Emergency (Pilot voice communications and emergency locator beacons)
- 122.750 MHz – General aviation air-to-air communications
- 123.025 MHz – Helicopter air-to-air communications

- 123.450 MHz – Airlines air-to-air communications
- Scan 122.0-123.65 – Unicom (uncontrolled airports) and air-to-air communications
- Scan 128.825-132.000 – For call-ahead frequencies for airlines, corporate aviation, and general aviation for fuel, parking, and other requests

An excellent source for local scanning is the FAA publication *Airport/Facility Directory (A/FD)*. 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.

They are published every eight weeks and while each edition updates its frequencies, there's really no need to get each one as printed. Each one currently sells for \$5.30. 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.

– KPC4KGC



Photo A. To keep this month's *Plane Sense* focus to the north, here's an Air Canada B767-200ER C-GDSY jetliner heading into the deep blue Canada sky. (Courtesy of Brian via Wikimedia Commons)

the lower 48 and Hawaii — Alaska has had this for years. It was a godsend for those of use working in Alaska. I know of plenty of airports throughout the country which could use something like this.

The remaining buttons are pretty much self-explanatory. Much of the information is virtually identical to what's available to U.S. pilots.

For Weather in Parts of the U.S., Press Here

We now come to the bottom five buttons. For those in Canada who wish to see weather conditions in parts of the U.S., press here. You enter the realm of the aviation weather of the lower colonies. Just beneath those buttons is the disclaimer: "NAV CANADA is not responsible for the ADDS, U.S. Wx Cams & NRC websites."

I guess this is their version of our disclaimer used when briefing pilots leaving American airspace: "Check data as soon as possible when entering foreign airspace as our data may be inaccurate or incomplete."

Other Aviation and Radio Pursuits

Earlier in my columns I discussed the idea of combining other hobbies with scanning. Recently I saw the Linden VORTAC — a navigational aid for pilots — while hiking in the Shenandoah National Park. I took some pictures and will write about it soon.

Since I'm doing a *resto-custom* on my 1993 Schwinn Super Sport bike — turning it into a touring bike — I'll be documenting how I've added a platform for my 2-meter mobile radio. Should be interesting — a couple years back some teenage kids watching me ride the bike said: "cool!" Maybe growing old isn't so bad.

On a Personal Note

This month's column is the result of a previous column's few passing references to our northerly neighbors. Readers wanted more detail. I've promised that I would not forget you. And I haven't.

I returned to writing *Plane Sense* last year and I trust it has been informational, as well as having a bit of humor.

To say that writing is easy, I must say it isn't. In creative writing in the 1960s I averaged out as average. In fact I was so average, my ranking was No. 350 out of a class of 700. *How average can one be?*

(NOTE TO SELF: OK, in my junior year I took chemistry with the classes including both juniors and seniors. I got

the second-highest final grade in the junior class, and fifth highest of all, but I attribute that to my late teacher Mr. Allabaugh. Fantastic educator. But I digress ... — KPC4KGC)

So to think it's easy to write one of these articles — it truly isn't. I guess my true talents aren't in writing. Maybe someday I'll find out in what field they are! — KPC4KGC

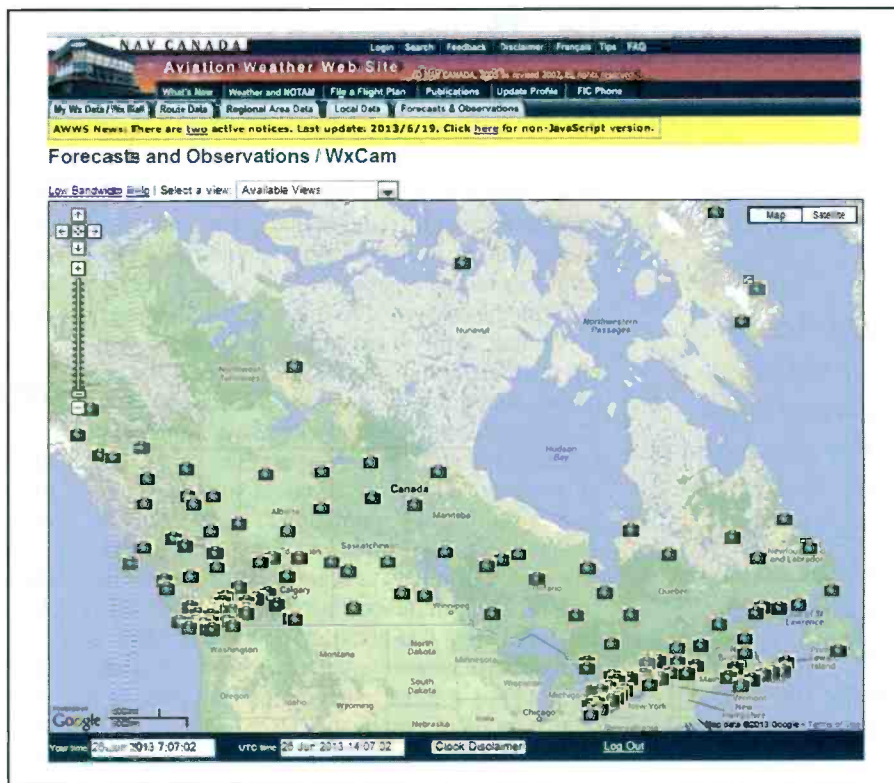


Figure 4

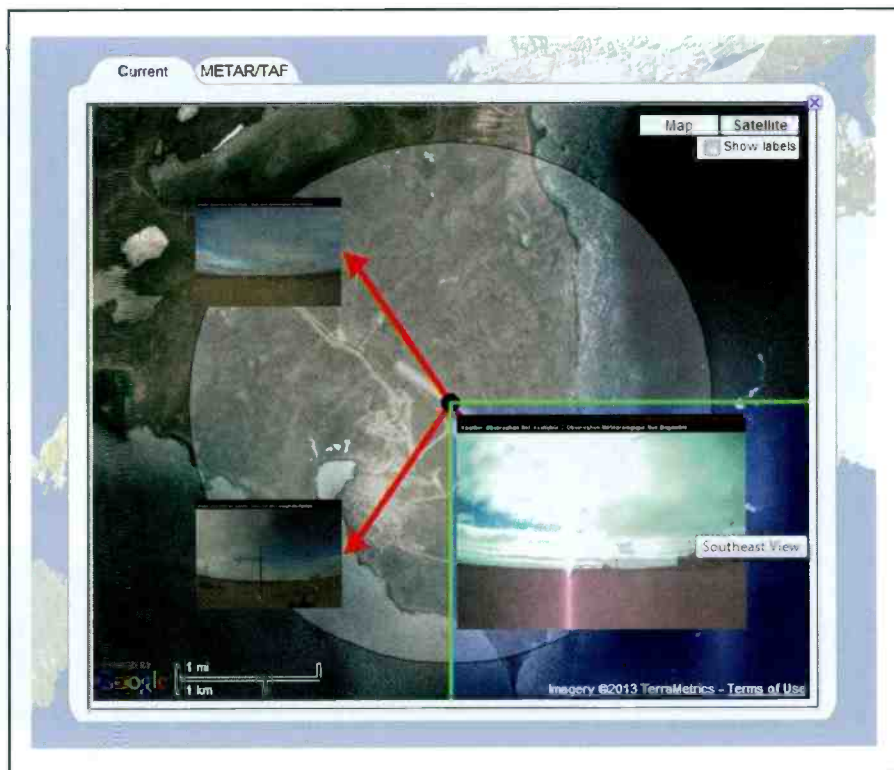


Figure 5

This Month, the E-Region Goes Up in Thin(ner) Air

By Tomas Hood,
WPC7USA/NW7US

“This is also the region that interacts with solar plasma in a way that can be visually stunning, as well as in a way that can provide a unique mode of propagation.”

In past columns we explored the ionosphere from the perspective of radio signal propagation and space weather. Remember that the Ionosphere has a number of layers, one of which is the *E*-region.

September is one of two periods in the yearly movement of the Earth during which an incredible phenomenon occurs in the *E*-region. The *E*-region, extending from about 56 miles to about 65 miles, has considerably less “air” than lower layers of the atmosphere. As a result of this thin air there are fewer collisions of ions and electrons, resulting in a population of molecular ions.

The *E*-region absorbs soft X-rays and is highly variable from day to night. One of the significant attributes of this region of interest to the radio amateur is that it is also the region that interacts with solar plasma in a way that can be visually stunning, as well as in a way that can provide a unique mode of propagation.

This is the phenomenon known as “the aurora.” Propagation modes that result from the interaction between radio waves and the aurora include Auroral-E, Sporadic-Auroral-E, and Auroral

Backscatter. Additionally, changes in the auroral zone, which occurs around each magnetic pole, causes changes in how shortwave and medium-wave radio waves are absorbed, changing the dynamics of propagation in lower latitudes.

What’s Behind This?

Why is September one of two special months associated with aurora and these unique modes of radio propagation? It is all about the Earth’s orbit around the Sun.

Around September 5 and March 5 each year, the Earth lies at its highest heliographic latitude. The Sun’s rotational axis is tilted eight degrees with respect to the Earth’s orbit. The solar wind blows more rapidly from the Sun’s poles than from its equator. Starting in September and March, the Earth is lined up to this tilt in such a way as to maximize the influence of the solar wind, so that by October and April we move into the heat of the aurora season.

Another event that occurs during September



Photo A. The Aurora Borealis illuminates the early-morning sky over Eielson Air Force Base, Alaska, on September 8, 2004. (Courtesy of Senior Airman Joshua Strang, USAF)

is the Autumnal Equinox. This year, this moment takes place on September 22 at 2044 UTC, as the tilt of the Earth's axis in relationship to the Sun is inclined neither toward nor away from the Sun. This means that the center of the Sun is in the same plane as the Earth's equator. At 2044 UTC on September 22, the Sun crosses the equator on its southward journey in its position in our sky.

These events, with the Sun directly over the equator, result in various changes in the Ionosphere, and in the influence of space weather. And, that means variations in radio propagation.

What is the Aurora?

Aurora is a direct result of solar plasma interacting with gasses in the upper atmosphere. It is common to see Aurora during active-to-severe Geomagnetic storms. Geomagnetic storms develop when strong gusts of solar wind carrying solar plasma from coronal jets flowing out away from the Sun's polar regions, coronal holes, or from coronal mass ejections (CMEs), interact with the Earth's magnetosphere in just the right way.

The Earth's magnetosphere is filled with electrons and protons that are normally prevented from escaping into space, or descending to the ground, by lines of magnetic force. The magnetic force is generated by the earth, as the Earth is like a giant dipole magnet.

The impact of solar plasma breaks loose some of those trapped particles, causing them to rain down on the atmosphere. Gasses in the atmosphere start to glow under the impact of these particles,

Photo A.

Different gasses give out certain colors. Think of a neon sign and how the plasma inside the glass tube, when excited, glows with a bright color. These precipitating particles mostly follow the magnetic field lines that run from Earth's magnetic poles, and are concentrated in circular regions around the magnetic poles called "auroral ovals." These bands expand away from the poles during magnetic storms depending on the strength of the storm. Sometimes they grow so large that people at middle latitudes, like California, can see these "Northern Lights."

The Science of 'Being Ready'

Look for Aurora-mode propagation when the K_p rises above 4, and look for

visual Aurora after dark when the K_p rises above 5.

The higher the K_p , the more likely you may see the visual lights. But, you don't have to see them to hear their influence on propagation. Listen on shortwave frequencies for stations located over the poles. They will sound raspy or fluttery.

Look for VHF DX of stations normally not heard. Sometimes, radio aurora will enhance a path at certain frequencies but *not* others only a few kilohertz away. At other times it will degrade the signals, like those in the shortwave band. Sometimes signals will fade quickly, and then come back with great strength.

The reason for this is that the radio signal is being refracted off of the more highly ionized areas that are lit up. These ionized areas ebb and flow, so its ability to refract changes, sometimes quickly.

At the same time, some signals will be

blocked by the *E*-region ionized cloud, when those signal are coming from the other side of a path making its way through the ionized patch. I've observed the effect of aurora and associated geomagnetic storminess even on lower HF frequencies as well as medium-wave frequencies.

Understanding and Using Radio Aurora

If there are enough solar particles flowing down the earth's magnetic field lines and colliding with atmospheric atoms and molecules, ionization occurs. This ionization may be sufficient enough to reflect VHF and lower UHF radio waves, generally between 25 and 500 MHz.

This usually occurs in conjunction with visual aurora, but the mechanism is a bit different and it is possible to have one (visual or radio) without the other.

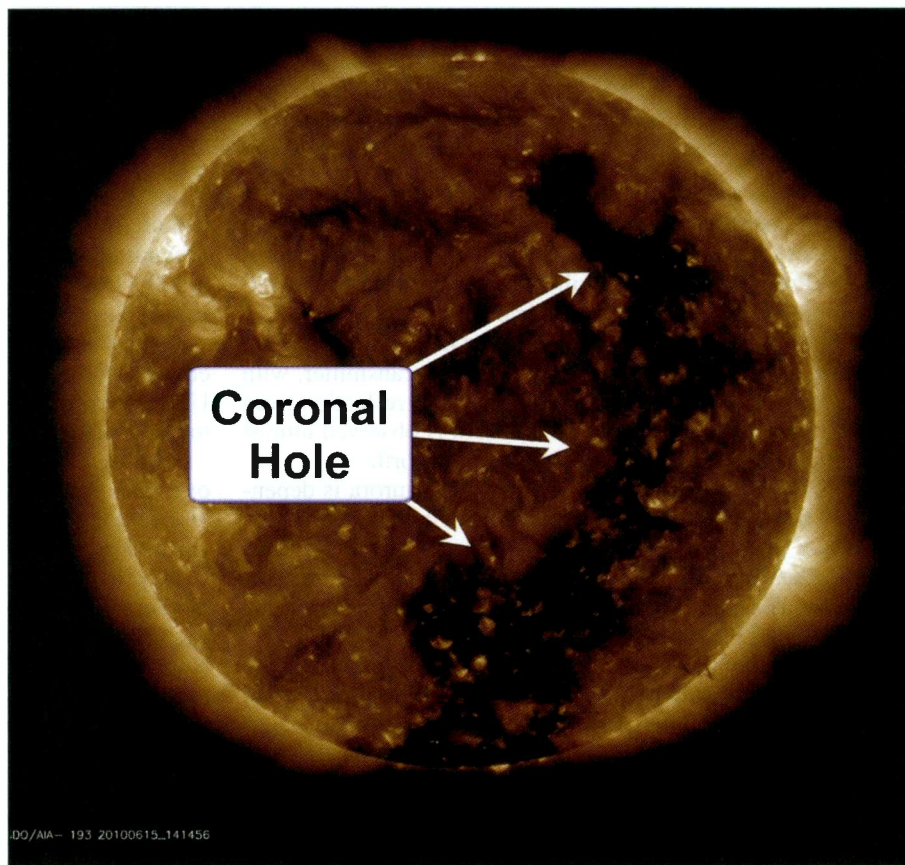


Figure 1. This image as seen through the 193-Angstrom filters of the Solar Dynamics Observatory's Atmospheric Imaging Assembly instruments (SDO/AIA) reveals a large coronal hole that has rotated into the "geo-effective" zone of the Sun. The geo-effective zone is the area on the Sun that "lines up" with the Earth by way of the solar wind. The solar wind does not blow straight out away from the Sun, however. It follows a spiral (the Parker Spiral) much like a rotating water sprinkler sprays out water that arcs as the sprinkler spins. When a coronal hole rotates into the geo-effective zone, the solar plasma escaping the gravity of the Sun at high speed races toward the Earth and typically causes geomagnetic disturbances and even storms (and, in turn, may trigger aurora). (Courtesy of Solar Dynamics Observatory/Atmospheric Imaging Assembly)

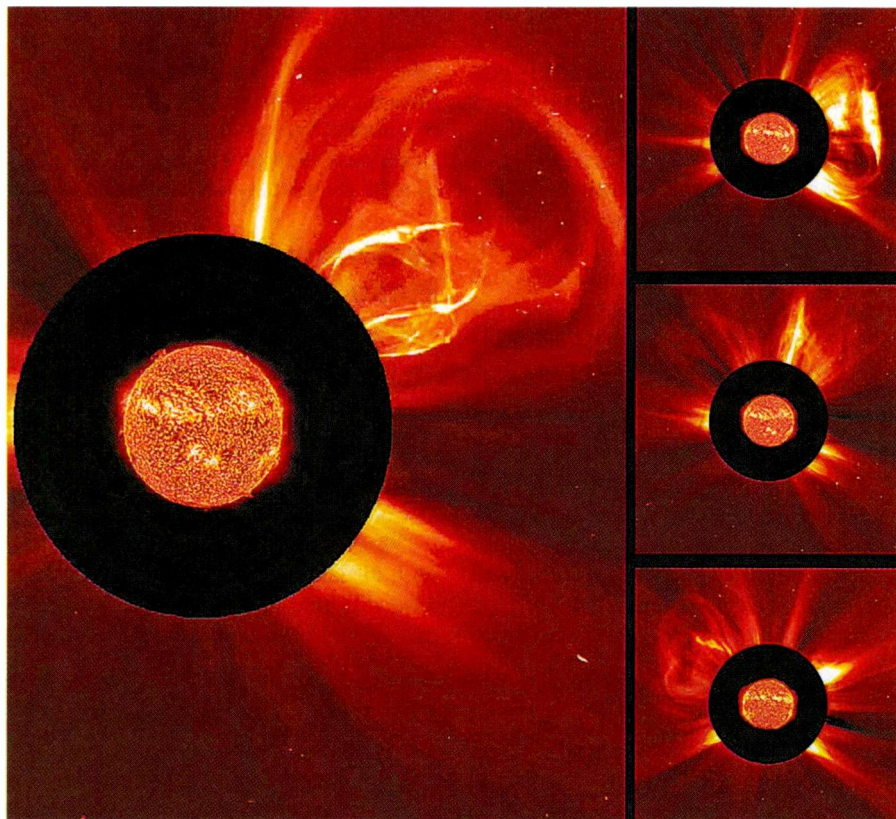


Figure 2. Since the Sun produced about a dozen coronal mass ejections (CMEs) in eight days, it did seem like it was working overtime (Nov. 22-28, 2011). The SOHO C2 coronagraph shows the storms (both large and small) blasting out in different directions. The Sun itself taken by the Solar Dynamics Observatory in extreme UV light was scaled appropriately and superimposed on the coronagraph. This image shows a composite of some of the larger CMEs. The times of the three stacked LASCO C2 images featured in the still are (top to bottom): 11/26/2011 at 07:48:06; 11/23/2011 at 10:48:06; and 11/29/2011 at 08:00:05. CMEs flow out from the Sun, riding the solar wind. If a plasma cloud from a CME blows by the Earth, it has an impact; sometimes aurora is triggered. Aurora is more than just a beautiful display of the ionosphere and atmosphere protecting us from the Sun, but is also a source for unique, exotic propagation modes. See text. (Courtesy of NASA/SOHO/SDO)

Using radio aurora, the chances of contacting stations over greater distances than would ordinarily be possible on the VHF frequencies is increased. Like its visual counterpart, radio aurora is very unpredictable. The thrill of the chase draws many VHF weak-signal DXers to working auroral DX.

VHF auroral echoes, or reflections, are most effective when the angle of incidence of the signal from the transmitter, with the geomagnetic field line, equals the angle of reflection from the field line to the receiver. Radio aurora is observed almost exclusively in a sector centered on magnetic north.

The strength of signals reflected from the aurora is dependent on the wavelength when equivalent power levels are employed. Six-meter reflections can be expected to be much stronger than 2-meter reflections for the same transmitter output power. The polarization of the reflected signals is nearly the same as that of the transmitted signal.

As noted, the K index is a good indicator of the expansion of the auroral oval, and the possible intensity of the aurora. When the K index is higher than 5, most readers in the northern states and in Canada can expect favorable aurora conditions. If the K index reaches 8 or 9, it is highly possible for radio aurora to be worked by stations as far south as California and Florida. Your magnetic latitude can be found using the map at <http://g.nw7us.us/12nuR73>.

I have a wealth of links at <http://aurora.sunspotwatch.com> that provide up-to-the-minute Aurora information and data. Also, check out *CQ VHF* magazine for details regarding VHF propagation through the spring and summer.

Propagation Overview for September

Once again, it's time for some of the best long-range DX openings of the year. With autumn right around the corner, the season for radical improvement in radio propagation conditions

is beginning. This is the time to make sure that you finish any antenna project, double-check your coax, ladder line, and grounding system. The DX "hunting" season is opening this month! Let's get right to the exciting shortwave propagation conditions starting in September.

At the end of September, the Sun will be directly over the equator. On the Autumnal Equinox (September 22 at 2044 UTC), everywhere in the world, the hours of daylight are equal to the hours of darkness.

This results in an ionosphere of almost similar characteristics over large areas of the world. This makes for the best time of the year for long DX openings between the temperate regions of the northern and southern hemispheres on all shortwave bands.

Expect a vast improvement on the higher frequencies (22 meters up through 11 meters) with more frequent short-path openings from mid-September through mid-October between North America and South America, the South Pacific, South Asia, and southern Africa. The strongest openings will occur for a few hours after sunrise and during the sunset hours. Many international shortwave broadcast stations will soon change from their summer schedule to a winter schedule, taking advantage of this change in propagation.

Long-path openings improve, as well, during the equinoctial periods. A variety of paths are opening up on 31 and 22 meters. Expect a path from southern Asia around sunset, daily morning openings from southern Asia and the Middle East, expanding to Africa.

Also, look for signals from the Indian Ocean region long path over the North Pole. Afternoons will fill with South Pacific long path, and then extend to Russia and Europe. Look for possible long-path openings on 31, 41, 49, 60, and 75 meters for an hour or so before sunrise and just before sunset.

The winter DX season is slowly approaching, making for additional exciting DX conditions. While the weather is still

Optimum Working Frequencies (MHz) - For September 2013 - Flux = 136, Created by NW7US

UTC	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
TO/FROM US WEST COAST																								
CARIBBEAN	27	26	24	22	20	18	17	16	15	14	13	13	12	16	20	23	24	26	27	27	28	28	28	28
NORTHERN SOUTH AMERICA	35	35	33	30	28	25	23	22	20	19	18	17	17	18	23	26	28	30	32	33	34	35	35	35
CENTRAL SOUTH AMERICA	35	31	29	26	24	22	21	19	18	17	17	17	16	21	27	30	32	33	34	35	35	36	36	35
SOUTHERN SOUTH AMERICA	35	33	31	28	26	24	22	20	19	18	17	17	17	17	21	26	30	32	34	36	37	38	38	37
WESTERN EUROPE	12	12	11	11	11	10	12	11	11	11	10	10	17	19	21	22	23	23	22	22	21	20	18	15
EASTERN EUROPE	11	11	10	12	16	15	12	12	11	11	11	10	15	18	20	21	20	19	19	18	16	14	11	
EASTERN NORTH AMERICA	29	28	25	21	19	18	17	16	15	14	14	13	13	22	25	28	29	30	31	31	32	31	31	30
CENTRAL NORTH AMERICA	17	16	15	14	11	10	10	9	9	8	8	7	7	9	13	14	15	16	17	17	17	17	17	17
WESTERN NORTH AMERICA	9	9	8	8	7	6	5	5	5	4	4	4	4	4	5	7	8	8	9	9	9	9	9	9
SOUTHERN NORTH AMERICA	28	27	26	24	21	19	18	17	15	15	14	13	13	13	19	22	25	26	27	28	29	29	29	29
HAWAII	25	25	24	24	23	21	19	18	16	15	14	13	12	12	11	11	14	17	19	21	23	23	24	25
NORTHERN AFRICA	14	13	12	12	11	11	12	11	11	11	10	10	17	20	21	22	23	24	24	22	20	17	15	14
CENTRAL AFRICA	18	17	16	15	14	12	12	11	11	11	10	10	17	19	21	22	23	23	24	24	24	23	21	19
SOUTH AFRICA	23	21	20	18	16	15	14	14	13	13	13	12	19	23	26	27	28	29	30	30	30	29	27	25
MIDDLE EAST	11	11	11	10	17	13	12	12	11	11	11	10	16	18	20	21	22	21	19	15	14	13	12	12
JAPAN	25	24	24	23	22	21	18	13	12	12	11	11	11	10	10	12	11	11	11	14	19	21	23	24
CENTRAL ASIA	25	24	24	23	22	21	18	13	12	12	11	11	11	10	10	13	17	16	15	15	14	16	21	25
INDIA	18	18	18	18	18	18	15	12	11	11	11	10	10	11	11	10	10	10	10	12	15	16	16	17
THAILAND	22	24	24	23	22	20	18	13	12	12	11	11	11	10	10	16	19	19	18	17	16	15	14	18
AUSTRALIA	31	33	34	36	34	32	29	26	24	22	21	20	18	18	17	16	20	19	18	17	19	23	27	29
CHINA	23	24	23	23	22	20	18	13	12	12	11	11	11	10	10	12	12	11	11	11	10	16	20	22
SOUTH PACIFIC	37	38	37	36	35	33	30	28	25	23	22	20	19	18	17	17	17	19	25	29	32	34	36	

UTC	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
TO/FROM US MIDWEST																								
CARIBBEAN	30	29	27	25	23	21	19	18	17	16	15	14	16	21	24	26	28	30	31	31	32	32	32	31
NORTHERN SOUTH AMERICA	32	32	30	27	25	23	21	20	18	17	16	16	15	19	22	25	27	28	30	31	31	32	32	32
CENTRAL SOUTH AMERICA	34	31	28	26	24	22	21	19	18	17	17	17	19	25	28	30	32	33	34	35	35	36	35	35
SOUTHERN SOUTH AMERICA	35	33	30	28	25	23	22	20	19	18	17	17	17	21	25	29	31	33	35	36	37	37	37	37
WESTERN EUROPE	12	12	11	11	10	10	10	11	10	10	10	10	17	20	21	23	23	23	23	22	21	20	18	14
EASTERN EUROPE	15	11	12	14	12	12	11	11	11	10	10	17	19	21	21	21	20	20	20	19	19	18	17	16
EASTERN NORTH AMERICA	21	20	17	16	14	13	12	12	11	11	10	10	13	17	19	20	21	22	23	23	23	23	22	22
CENTRAL NORTH AMERICA	10	9	9	7	7	6	5	5	5	4	4	4	7	8	9	10	10	10	10	10	10	10	10	10
WESTERN NORTH AMERICA	17	16	15	14	12	11	10	9	9	8	8	8	7	9	13	14	16	16	17	17	18	18	17	17
SOUTHERN NORTH AMERICA	20	19	18	16	15	14	13	12	11	10	10	9	9	12	15	17	18	19	20	20	20	20	20	20
HAWAII	29	28	27	26	24	21	20	18	17	16	15	14	13	13	14	13	16	20	23	25	26	28	28	29
NORTHERN AFRICA	18	17	14	13	12	12	11	11	11	10	10	18	21	22	23	24	25	25	25	25	25	22	21	19
CENTRAL AFRICA	19	17	13	13	12	12	11	11	11	10	10	18	21	22	23	24	25	25	25	25	25	24	22	20
SOUTH AFRICA	23	21	20	19	18	17	18	19	18	17	16	20	26	30	33	35	36	37	36	35	33	30	27	25
MIDDLE EAST	12	11	11	11	12	12	11	11	11	10	10	18	20	22	23	24	24	22	20	17	15	14	13	13
JAPAN	24	23	22	21	19	15	13	12	11	11	11	10	10	10	12	11	11	11	11	13	19	21	23	24
CENTRAL ASIA	24	23	22	21	19	15	12	12	11	11	11	10	10	13	18	18	17	16	15	15	14	15	21	24
INDIA	13	14	15	15	15	12	12	11	11	11	10	11	16	16	15	15	14	12	11	10	10	10	10	10
THAILAND	21	23	22	20	18	13	12	12	11	11	11	10	10	17	19	21	21	19	18	17	16	15	14	17
AUSTRALIA	32	34	35	34	31	28	25	23	22	20	19	18	17	16	17	21	19	18	18	17	20	24	27	30
CHINA	22	23	22	20	18	13	12	12	11	11	11	10	10	13	12	12	11	11	11	10	10	14	19	21
SOUTH PACIFIC	38	37	36	35	33	30	27	25	23	21	20	19	18	17	18	17	16	22	27	31	33	35	37	

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

warm and fair, tighten hardware on your antenna system, check coax cables, and fine tune your radio station. Get ready now, to reap the DX in the comforts of home during those cold months ahead.

During September, we'll see a number of days when aurora will occur, so be ready for interesting VHF propagation well beyond line-of-sight. When the planetary K-index (K_p) is higher than 5, there is a good chance of aurora.

High-Frequency Propagation

Radio signal propagation on 11 through 22 meters will sport some F-region propagation on paths mostly near the equator. Additionally, some short-range, E-region propagation may still occur. On these higher bands, conditions may be marginal during the month, but these bands are certainly coming alive as Sunspot Cycle 24 picks up energy.

There will be less polar propagation as we move toward winter, though, making some parts of the world difficult to hear over these paths. To catch the openings over high latitudes, get on these bands shortly after sunrise, or watch for polar signals as they close for the evening.

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by Mark Francis, KI0PF



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Sixteen meters, used by a larger group of broadcasters, will be the most reliable higher band. This band will usually supply day-path propagation even over the polar paths. A considerable improvement is expected, with the band opening shortly after sunrise and remaining open until after sundown.

However, 16 meters will not stay open late into the night like it typically does during the spring season. Openings should be possible from all areas of the world, with conditions best from Europe and the Northeastern U.S. before noon, and from the rest of the world during the afternoon hours. Openings from the

South Pacific, Australia, New Zealand, and the Far East should be possible well into the early evening, particularly when propagation conditions are High Normal or better.

The 19- and 22-meter bands compete with 16 for the best daytime DX band this month. Look for 19 and 22 to open for DX at sunrise and remain open from all directions for a few hours. It should be possible to hear many areas of the world throughout the daylight hours, with a peak in the afternoon.

Nighttime conditions will favor openings from the south and tropical areas, but some openings will also be possible from

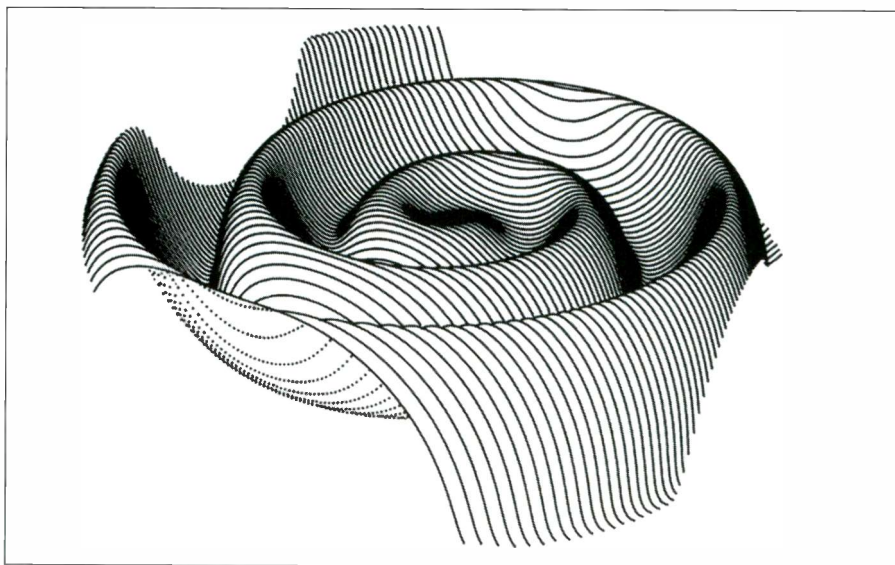


Figure 3a. The heliospheric current sheet is shaped like a ballerina's skirt and extends to the outer reaches of the Solar System, resulting from the influence of the Sun's rotating magnetic field on the plasma in the interplanetary medium. On this sheet ride the solar winds. See text. (Courtesy of J. R. Jokipii, University of Arizona)

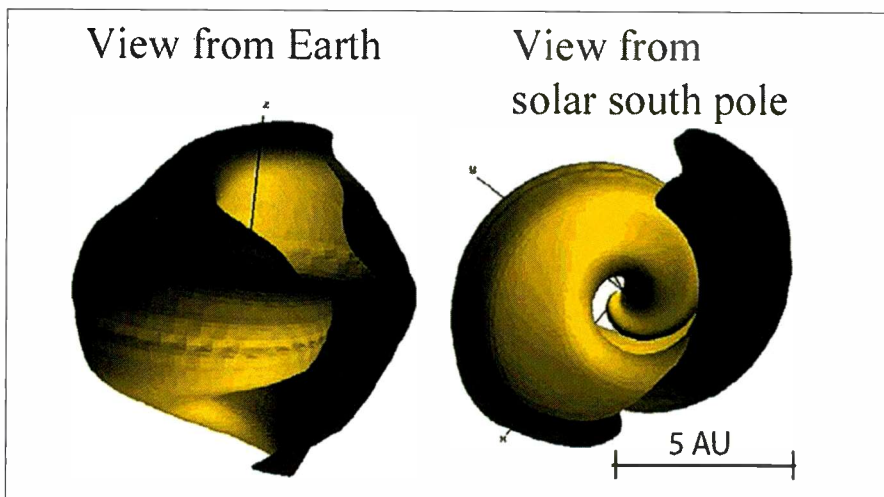


Figure 3b. The shape of the heliospheric current sheet in March 2000 as calculated by the Blue Horizon supercomputer using data from several spacecraft. (Courtesy of NASA)

other areas. Look for polar gray-line propagation from Asia. Long path is common on 19 from southern Asia, the Middle East, and northeastern Africa as well as the Indian Ocean region via the North Polar path.

The 25- and 31-meter bands are all-season bands. Expect an incredible amount of activity on these two hot bands. Many broadcasters choose these, targeting their audiences during prime times (morning and early evenings). The conditions prevalent on 19 and 22 are more pronounced, and last much longer, on these bands. Look for exotic stations a few hours before sunrise through early morning, then again in the early evening before sunset, until around midnight.

After the Autumnal Equinox, expect ever-improving nighttime DX conditions on 41, 49, 60, 75, 90, and 120 meters into October. This is due to the gradual increase in the hours of darkness and a seasonal decrease in the static level. Forty-one meters should be best for worldwide DX from sunset to sunrise. Forty-nine and 60 meters are used by a lot of the larger, stronger broadcasting stations, so you can always depend on hearing signals from early evening (from before sunset) to a few hours after sunrise. For exotic regional signals, check 75 through 120 meters during the hours of darkness, especially for an hour or so before local sunrise.

Medium-Wave Propagation

With a possible increase in geomagnetic activity this month, there is a chance for occasional weak to moderate geomagnetic disturbances that can attenuate medium-wave DX over northern latitudes.

This can be a blessing for those trying to DX tropical AM broadcast stations and mid-latitude medium- and low-power stations, since the interference from strong stations on signal paths crossing the higher latitudes is reduced.

Signals below 120 meters will improve after this month as the hours of darkness increase, and because of the decline of noise-producing weather. Seasonal static which makes it difficult to hear the weak DX signals, is decreasing little-by-little as we move away from the Autumnal Equinox. Stretch out those beverage antennas, and start looking for signals along nighttime paths.

VHF Conditions

The Sporadic-E season we experienced earlier in the year is pretty much over, now.

There will be a few openings late this year, but this is not the month typically associated with Sporadic-E.

Troposcatter is a real possibility, however. Look for signals on paths crossing through stalled high-pressure zones in the Midwest, or along cool, wet air masses.

Additionally, toward the end of September, Trans-equatorial (TE) propagation will begin to occur between southern North America and northern South America. Openings will generally occur in the late afternoon to early evening. F-

region propagation activity may occur during the day on the lower VHF bands, though the 10.7-cm flux levels are not going to support reliable propagation at these higher frequencies. Don't expect any east-west paths to be open.

Tropospheric conditions are generally very good for many of the VHF bands during September with the appearance of different weather fronts. This will be the primary mode for working up to 300 miles. Continue to expect a high number of coronal mass ejections, possibly trig-

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gering Aurora during September and October. Look for days when the K_p index is above 5.

Don't forget to check out the *CQ VHF* for more details on VHF propagation and conditions. If you use Twitter.com — you can follow <@hfradiospacewx> for hourly updates that include the K index numbers. You can also check the numbers at <<http://SunSpotWatch.com>>.

Current Solar Cycle Progress

The Royal Observatory of Belgium, the world's official keeper of sunspot records, reports a monthly mean sunspot number of 78.7 for May 2013, up a slight amount from 72.4 for April, significantly up from March's 57.9. The low for the month was 33 on May 31. The high of 135 occurred on May 16. The mean value for May results in a 12-month running smoothed sunspot number of 59.7 centered on November 2013. That is almost a point up from 58.6 centered on October 2012. Following the curve of the 13-month running smoothed values, a smoothed sunspot level of 85 is expected for September 2013, plus or minus 12 points.

Canada's Dominion Radio Astrophysical Observatory at Penticton, British Columbia reports a 10.7-cm observed monthly mean solar flux of 131.3 for May 2013, up from 125.0 for April, up significantly from February's 104.4. The 12-month smoothed 10.7-cm flux centered on November 2012 is 120.1. A smoothed 10.7-cm solar flux of about 136 is predicted for September 2013.

The geomagnetic activity as measured by the planetary-A index (A_p) for May 2013 is 10, showing a definite increase in solar activity. The 12-month smoothed A_p index centered on November 2012 is 7.3. Geomagnetic activity should be increas-

ing over what we have had during August. Refer to the Last Minute Forecast in *CQ Amateur Radio* for the outlook on which days that this might occur.

I'd Like to Hear From You

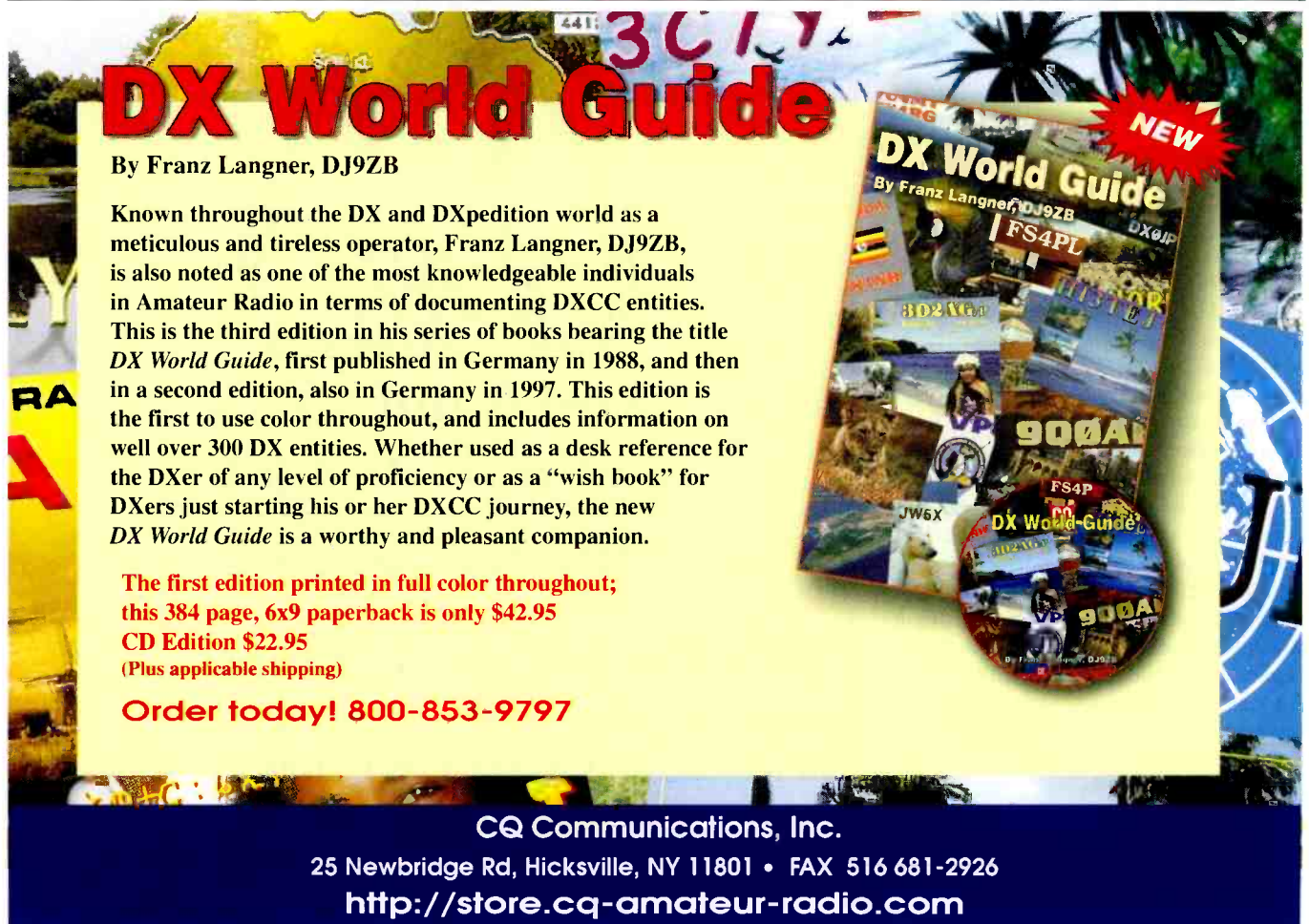
I welcome your thoughts, questions, and experiences regarding this fascinating science of propagation. You may email me, write me a letter, or catch me on the HF amateur bands.

On Twitter, please follow <@NW7US> and if you wish to have an hourly automated update on space weather conditions and other radio propagation-related updates, follow <@hfradiospacewx>.

I invite you to visit my online propagation resource at <<http://sunspotwatch.com>>, where you can get the latest space data, forecasts, and more, all in an organized manner. If you are on Facebook, check out <<http://www.facebook.com/spacewx.hfradio>> and <<http://www.facebook.com/NW7US>>.

Speaking of Facebook — check out the *Popular Communications* magazine fanpage at <<http://www.facebook.com/PopComm>>. This is a great place for the monitoring community — for you — to participate and share information, tips, DX spots, and photos of your antennas, radios, or your excursions into the field with your radio gear for that DX hunting trip.

Until next month,
73, Tomas, NW7US
P.O. Box 27654
Omaha, NE 68127
<nw7us@nw7us.us>
<@NW7US>
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DX World Guide

By Franz Langner, DJ9ZB

Known throughout the DX and DXpedition world as a meticulous and tireless operator, Franz Langner, DJ9ZB, is also noted as one of the most knowledgeable individuals in Amateur Radio in terms of documenting DXCC entities. This is the third edition in his series of books bearing the title *DX World Guide*, first published in Germany in 1988, and then in a second edition, also in Germany in 1997. This edition is the first to use color throughout, and includes information on well over 300 DX entities. Whether used as a desk reference for the DXer of any level of proficiency or as a "wish book" for DXers just starting his or her DXCC journey, the new *DX World Guide* is a worthy and pleasant companion.

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The Shortwave Community Loses a Legend and Giant

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

“I couldn’t even begin to relate all of Don Jensen’s hobby achievements, but I’ll try to highlight them in tribute to him in this month’s GIG.”

A giant has fallen. All too often I have had to use these pages to report on the closure of yet another shortwave broadcaster.

This time the bad news makes the mere loss of a radio station seem anemic by comparison. The shortwave hobby has lost Don Jensen of Kenosha, Wisconsin.

I couldn’t even begin to relate all of his hobby achievements, but I’ll try to highlight them:

- He was the founder and first Executive Secretary of the Association of North American Radio Clubs (ANARC).
- Was Editor-Emeritus of *Passport to World Band Radio*.
- He reorganized and rejuvenated the then-troubled North American Shortwave Association (NASWA) and for several years edited its *Short Wave Center* column.
- Don edited and operated the weekly “Numero Uno” shortwave broadcast DX newsletter for some 30 years.
- Edited the bi-annual *Communications World* publication, and wrote columns and articles for *Communications Handbook*, as well as various columns and features for nearly every other radio or electronics magazine, including *Pop’Comm* in its early days — all over a multiyear period.
- He hosted “Don Jensen’s Journal” on Ian MacFarland’s *SWL Digest* program on Radio Canada International.

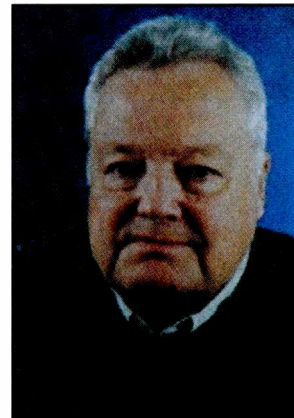
I was just one of the hundreds — more likely numbering the thousands — of DX listeners and shortwave enthusiasts who learned from him, looked up to him, and who honor him now. We are all vastly the better for having known him. *R.I.P., Giant!*

Shortwave Newslines

China Radio International is planning an expansion of its languages aimed at India. Gujarati, Punjabi, Malayalam will be added to CRI’s language lineup. CRI will open an in-country office there, as well. These moves will obviously create a cause-effect situation:

I expect India to react by expanding and beefing up its own service, particularly in the cross

Donald N. Jensen,
1935-2013. R.I.P.



border area. You can be pretty sure that the *2014 World Radio TV Handbook* (WRTH) will have several added pages and services from India and China reflecting such an expansion, so watch out.

Radio Algerienne has two new sites a-building, one at Orgula and one at Bechar. Each will have one 300-kilowatt, DRM-capable transmitter beaming to the Sahel area of northwest Africa. I don’t know whether — or if — the addition will have any effect on Algeria’s use of the Issoudun, France’s transmitter site.

Expect more **Radio Australia** relay time via the Kranji, Singapore site soon. Another 250-kilowatt unit formerly used at the BBC Skelton site will be in operation there shortly.

Radio Patria Nueva, 6025 in La Paz, Bolivia, reported by others recently, also operates under the better known name Radio Illimani. The station had been inactive for some time.

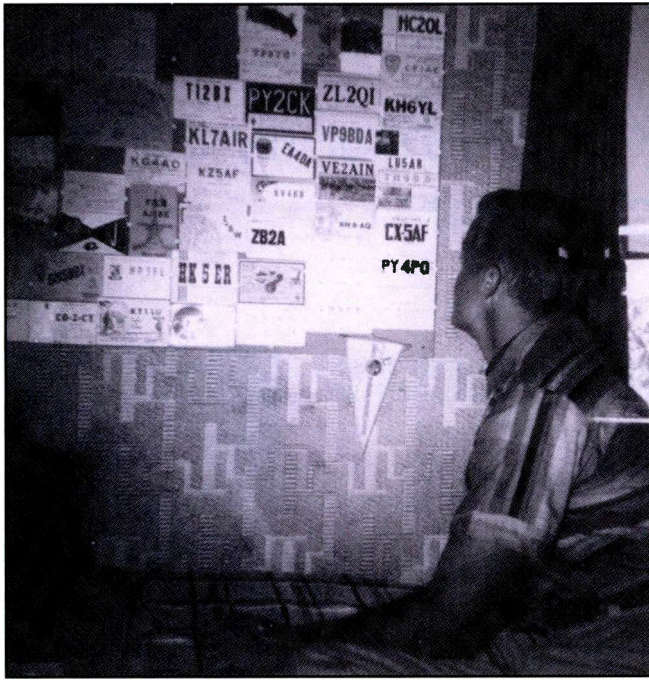
Radio Free Sarawak says it has suspended operations, but expects to resume them at some future date, probably when the organizers see more favorable conditions for their views.

It now appears that **Cyprus Broadcasting Corporation**, relayed by the now-closed BBC Cyprus Relay station, has had to cease its Friday through Sunday broadcasts, as expected.

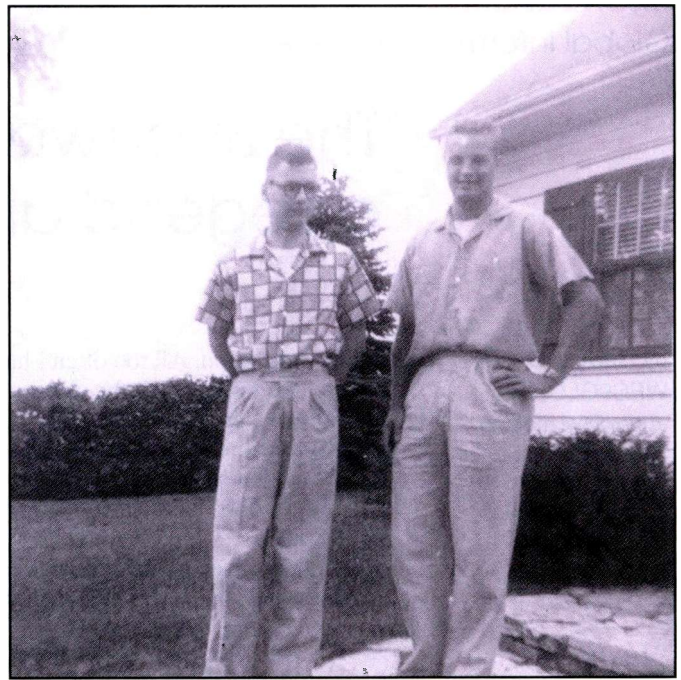
Does anyone hear EE from the **Broadcasting Service of the Kingdom of Saudi Arabia**? It’s scheduled at 1400-1553 on 17660.

Radio Omdurman (Sudan) has moved to 7205 kHz from its long-used 7200. It’s usually heard in AA around a 0300 sign on.

Station KVOH, based in Simi Valley, California, which has been silent for quite some time, is due for a rebirth one of these months. The



Don visits Gerry at his shack in Waterloo, Iowa, circa 1953.



Gerry visits Don at his home in Racine, Wisconsin in 1955.

new approach will have the station broadcasting in Spanish and EE toward Mexico and Cuba, but no on-air date has been announced.

As we were warned a couple of months ago, **Sri Lanka's worn out Ekala transmission site** has now been closed. Its last operational day was May 31.

Calling All Listeners . . .

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 its home country and include your last name and state abbreviation after each. By the way, stations using multiple transmitter sites should be specified as to their location in your logs.

Listen Globally, Think Visually

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 where's that photo of you at your listening post? It's way past your turn to grace these pages!

SWL Catches for September

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 English (EE) is assumed.

ALASKA—KNLS, 7355 at 1209 with *Postcard from America's Last Frontier* on a carver of native Alaskan art, f/by *True Stories from the Bible*. (Sellers, BC)

ALBANIA—Radio Tirana, 9850 at 2312 in Albanian with local music, ID and talks. (D'Angelo, PA)

ALGERIA—Radio Algerienne, 7295 via Issoudun at 0447 with a M reading from the Qur'an. Also, 9535 at 0538 with AA prayers. (Klauber, NY)

ARGENTINA—Radio Argentina al Exterior, 11710 heard at 0200-0230 opening EE pgm with ID, e-mail, address and music. (Miller, GA) In FF at 0330 with W anc over slow, random plucked notes on a guitar. Pips at BOH. (Parker, PA) 15345 at 2105 with a talk in GG. (Brossell, WI)

ASCENSION ISLAND—BBC-Atlantic Relay Station, 9915 with world news at 2100, 15105 in FF at 1820. (Brossell, WI)

AUSTRALIA—Radio Australia, 9660 at 0722 interviewing a M guest on the Australian film industry and 21740 at 2205 with another interview. (Klauber, NY) 9855 at 2344 interviewing an Australian songwriter. (Coady, ON) 9965 via Palau at 1300 open in CC. (Sellers, BC) 11880 at 1615 with in-depth analysis and a correspondent report, but tough to make out the subjects. (Barton, AZ) 1729 with top Aussie hits. (Brossell, WI) 15240//15160 at 0400 with news headlines and *World of Sports*. (Miller, GA)

Australian Northern Territory Service, 4835-Alice Springs at 1227 with jazz. (Brossell, WI)

HCJB Global, 15400-Kununurra at 1100 with *Spotlight* pgm. (Fraser, ME)

AUSTRIA—Adventist World Radio, via Mossbrunn 9770 in listed Dyula language at 2016. (Brossell, WI) 11955 at 2156-2159* with W and EE closing. (D'Angelo, PA)

BANGLADESH—Bangladesh Betar, 15105 (p) at 1258 with traditional vocals. M anc, but could not confirm if EE or not. (Sellers, BC) 15505 at 1423-1430* with local vocals and W in (l) Urdu. Closedown with ID and anmts at 1430. (D'Angelo, PA)

BELARUS—Radio Belarus, 11730 at 2040 just above noise floor with something about Belarus and the E.U. (Maxant, WV) 2146-2300* with M in EE hosting music pgm, music fanfare at 2200 f/by ID and news by a W anc. Closed at 2256 with rap until carrier termination. (D'Angelo, PA)

BOLIVIA—Radio Yatan Ayllu, Yura, 4716.6 at 0034 with hard rock, Andean-type flute at 0358, M vocal at 0046, T/storm caused missed ID at 0100. (Wilkner, FL)

Radio Santa Ana, Santa Ana del Yacuma, 4451 at 0000 with M fading in, 0015, music at 0020. (Wilkner, FL)

Radio Santa Cruz, Santa Cruz, 6134.7 at 0007 with continuous LA music hosted by W with occ. SS anmts, nice canned ID by M at 0030 and again at 0036. (D'Angelo, PA)



Don visits Gerry in Lake Geneva in 1971.

BOTSWANA—VOA Relay, Mopeng Hill, 9885 monitored at 0345 with talks. (Parker, PA) 0401 with news and many correspondent reports, then into *Science World* at 0405. (Coady, ON) 15580 at 2046 with W hosting music pgm, f/by news at 2100. (D'Angelo, PA) 2120 with a top 40 hit parade. (Brossell, WI)

BRAZIL—(All in PP, gld)

Radiodifusora de Congohas, 4774.9 at 0023-0055* reactivated with PP ballads, religious anmts, and comments. Began the day's shutdown sequence at 0049. Suffered mainly from t-storm static. (Perry, IL)

Radio Caiari, Porto Velho, 4785 at 0935 beginning news theme, M/W with comments, "bom dia" repeated. (Wilkner, FL)

Radio Clube do Para, Belem, 4885 at 0326 with talks. (Brossell WI) 0621 with a "remix" pgm with Michel Jackson songs and M ancr. (Wood, TN)

Radio Cultura Filadelfia, Foz de Iguacu, 6104.8, rarely heard but showing several days this week. Sign on appears to be nominal *0945. The reception window, peaks around 1000 to total fade out by 1005-1010. Canned ID at 1000, including frequencies and two tones on the hour. (Perry, IL)

Super Radio Deus e Amor, Curitiba, 9585 (p) at 0405 with several revival-type preachers before a large crowd and 11765 at 0322 with an impassioned speech before a cheering crowd and QRM from Havana on 11760. (Parker, PA) 11765 with an impassioned speech at 2241. (Brossell, WI) With a sermon at 2349. (Klauber, NY)

Radio Voz Missionaria, 9665 at 0358-0402 with upbeat music and am preacher taking phone calls. (Parker, PA)

Radio 9 de Julho, Sao Paulo, at 0349 with an inspirational pgm. (Parker, PA)

Radio Nacional de Amazonia, Brasilia, 6180 monitored at 0240 with two M sportscasters doing *futbol*, 11780 at 0016 with a PP musical pgm. (Klauber, NY) 0015 with live p-b-p. (Barton, AZ) 0307 with upbeat music,

Help Wanted

We believe the Global Information Guide — month after month — offers more logs than any other monthly SW publication. (Just under 300 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 submitted are used. There are usually a few which are obviously inaccurate, unclear, or lack a time or frequency. Also discounted are unidentified, duplicate items (same broadcaster, same frequency, same site), and questionable logs. — WPC9GLD*

M with ID at 0317. (Parker, PA) 2141 with talks. (Brossell, WI)

Radio Brazil Central, Goiania, 11815 at 0234 with Brazilpops hosted by M ancr. W with news at 0256. 4985 was covered by some sort of noise pollution. (D'Angelo, PA) 0313 with M and schmaltzy music. (Parker, PA)

CANADA—Bible Voice Broadcasting, via Nauen heard at 0307 with W and AA talk with occasional string music bridges. (Coady, ON) 15215 via Wertachtal at 1717 with M preaching in EE. Poor, with heavy fading. (Klauber, NY)

CKZN, St. John's (Newfoundland), 6160 on rescue personnel. (Brossell, WI)

CHINA—China Radio International, 6100-Xi'an in AA at 2005, 9745-Urumqui in (I) Esperanto at 2011, 11865-Urumqui on the Chinese economy. (Brossell, WI) 9515 via Albania at 0604 in AA with M ancr. (Klauber, NY) 9460-Kashi at 2250-2300* with vocals ending listed SS pgm. 2+1 time pips at 2300 f/by opening of CC pgm until carrier was terminated 30 seconds later. (D'Angelo, PA)

China National Radio, Network One, PBS Xizang, Lhasa (Tibet) 7450 at 1140-1232 with news and comment pgm by M/W and orchestral music bridges and pgm change at top of hour. (Perry IL) 9875 at 2311 in Mandarin with M/W ancrs and apparent news with bits from reporters and commentators, apparently to jam Radio Free Asia in Tibetan. (Coady, ON) 12870 at 1030 excellent level in CC. //12370. Apparently a new Chinese jamming technique as these CNR bests are on channels normally occupied by the Firedrake jammers. (Barton, AZ) Xinjiang BC Station, 4980-Urumqui in CC at 2332. (Brossell, WI)

Firedrake jammer, 9905 at 1720 presumably after Radio Free Asia via Palau. (Brossell, WI)

COLOMBIA—Alcaravan Radio, Puerto Lleras, 5910 with a pgm of Colombian songs intro'd by M SS ancr. (Klauber, NY)

CUBA—Radio Havana Cuba, 5040 and also parallels 6060, 6100, 11680, 11760, 11840, 15230, and 17705 in SS monitored at 0115 with M/W doing news. Also, noted 6165 in EE at 0245 with W hosting various talks,

0300 into M/W doing news. (Klauber, NY) 11760 at 1920 with EE sports news. (Fraser, ME) 11880 at 2345 with under-modulated Cuban music, also 17580 with a long speech regarding the late Hugo Chavez, //17730. (Barton, AZ)

Radio Rebelde, 5025 in SS at 0200. (Klauber, NY) 0600-0620 in SS with M/W ancrs and traditional Cuban music. (Wood, TN)

DJIBOUTI—Radio Djibouti, 4780 in AA at 0300 with a vocal anthem and W with ID at 0302, f/by an HOA music bridge and apparent news, then Qur'an pgm. (Coady, ON)

EGYPT—Radio Cairo, 9965 at 0340 in EE and AA language lesson. Rapid QSB but clear audio. (Parker, PA) 2251 with M/W talk, accompanied by some instl music, apparent news at 2300. A booming signal but almost no audio. How can professional engineers manage to do this so consistently over the years? (D'Angelo, PA) 11890 at 2128 with songs in AA and EE ID at 2130. (Brossell, WI)

ENGLAND—BBC via South Africa, 3255 at 0400 with world news. (Brossell, WI) 9440 in Hausa at 0551 hosted by M with typical North African music, W ancr closing broadcast at 0600. 9500-Wooferton in Farsi at 0247 with M talk, into music selections at 0250. Also, 9915 in FF at 0600 and M/W with news. (Klauber, NY) 9500-Wooferton in Farsi at 0240-0253 with W and ID, before M and long talk. (D'Angelo, PA) 11855 via Moldova in Farsi at 0310. (Parker, PA)

ERITREA—Voice of the Tigray Revolution, 5950 in (I) Tigrinya at 0340. (Brossell, WI) Voice of the Broad Masses (1st Pgm), 7205 at 0255 with a loop of HOA vocals from 0303. Fair, under Radio Omdurman. Also, 9705 with 2nd Pgm at 0312 in apparent Tigrinya with HOA vocals to 0330, then M with ID and news. (Coady, ON)

FRANCE—Radio France International, 15300 in FF at 1757 with an ID and news by W. (Klauber, NY) 1620 with talks in FF. 17615 with talks in (I) Hausa at 1650. (Brossell, WI)

GERMANY—Deutsche Welle, 5905-Rwanda Relay in (I) Swahili at 0339 and

In Times Past

Here's your "blast from the past" for this month: Radio Horizonte, La Paz, Bolivia, on 6005 at 1016 on August 13, 1989 with a domestic service in SS.

12070 in (I) Hausa at 1825. (Brossell, WI) 9470-Rwanda Relay at 0500-0510 with an ID and news then into talk of African politics. (Wood, TN) 0348 with EE features. (Parker, PA) 11865-Rwanda Relay at 2101 with M and EE news f/by *Inside Europe*. Fair and //12070, 11800-Rwanda Relay with news in EE f/by news features at 2105. (D'Angelo, PA) 12045 at 0505 on French rioting. (Maxant, WV) 12070-Rwanda Relay at 2017 on Sierra Leone's economic recovery. (Fraser, ME) 15275-Rwanda Relay in FF to Africa with M taking a listener's phone call at 1748. W talking prior to 1755 sign off. (Klauber, NY)

GREECE—Voice of Greece, 9420 at 0237 playing Greek music. (Klauber, NY) 15630 at 1635 in Greek. (Brossell, WI) 2146-2250 M/W and talks in Greece and pgm of

Greek music. (D'Angelo, PA) 15650 in Greek at 1423 with selections and commentary. (Parker, PA)

ERA3RS Macedonia, 7450 at 2234-2252* with a nice pgm of Greek music hosted by M anc in Greek, f/by ID. closedown anmts and NA. (D'Angelo, PA)

GUATEMALA—Radio Verdad, Chiquimula, 4055 at 0228 with filler pgm of instl scores of Broadway hits. Into an SS religious pgm at 0301. (Coady, ON) 1045 with organ music and a church service in EE. (Barton, AZ)

INDIA—All India Radio, 9629-Aligarh at 1309 in Sindi with Indian contemporary music, 9870-Bangaluru with Vividh Bahrati service with Hindi songs. (Sellers, BC) 9835 at 1530 with various instls. (Barton, AZ) 11670 at 2035 on rapes of Indian women

would be dealt with harshly. Also, 13710 with domestic music at 1345 and station ID. (Maxant, WV) 12025-Panaji (Goa), in (I) Malayalam at 1812, 13640 at 2015 with music pgm hosted by W in FF. (Klauber, NY)

Athnikiyayathra Radio, 15150 via Nauen heard at 1615 in (I) Pashto to Afghanistan. (Brossell, WI)

INDONESIA—Voice of Indonesia, 9526 at 1300 with an O/C, opening suddenly with ID "RRI World Service/Voice of Indonesia," giving frequencies, including those in the 11 and 15 MHz bands not in use for years. Pgm line-up at 1302 and into news. (Sellers, BC) 1430 with pops and W presenter. (Barton, AZ)

Radio Republik Indonesia, 4750-Makassar (Sulawesi), at 1228 with Indopops with M and mention of "Jakarta" and W hosting between songs. (Sellers, BC)

IRAN—Islamic Republic of Iran Broadcasting/Voice of Justice, 13650-Sirjan at 0344 with W and EE news. f/by ID and commentary, but was deteriorating by 0410, //15470-Kalamabad was poor. (D'Angelo, PA)

JAPAN—Radio Japan, 5910 via France at 0216 with M/W playing older U.S. pops. (Klauber, NY) 0255-0306 with W in JJ f/by instl music and ID at 0259, time pips at 0300, another ID and news in JJ. (D'Angelo, PA) 0400 with man opening in JJ and news. The Colombian station was also in the mix. (Barton, AZ) 15445 via Wertachtal in JJ at 1825 and 17735 via France in JJ at 1655. (Brossell, WI)

KUWAIT—Radio Kuwait, 15540 at 1830 with local and international news. (Brossell, WI) 1850 with pops, ID and address for reception reports. (Klauber, NY) 1850-1900 with music on the EE pgm, ID by W at 1900. (Handler, IL) 1930 with *Today in History* feature, M with ID and frequencies, e-mail, and postal addresses, then pops. (Coady, ON) 2015 with ID and U.S. rock song. (Maxant, WV) 2021-2101* with pops and EE anc host, PSA about parking safety, closedown ID and anmts at 2058, time pips at 2100, f/by AA news which was terminated a minute later. Also, 17550 at 2310-0000* with M anc and AA talks and local features. (D'Angelo, PA)

LIBYA—Radio Libye, 11600 at 1908-1950 with mainly talks in AA. Seemed an extensive group discussion in AA with several remotes. (D'Angelo, PA)

MALAYSIA—Klasik Nasional, 5965 at 1230 playing Malaysian music and several "Radio Klasik" IDs at 1233. (Sellers, BC)

Asyik FM, 6050 at 1247 in Bahasa Malay with Malaysian pop song, ID at 1250 and into another song. (Sellers, BC)

Wai FM, 11685 at 1246 in Bahasa Malay with M teaching or preaching about Islam and into Qu'ran. (Sellers, BC)

MOLDOVA—Radio PMR, 9655 at 2346-0001* with a classical music pgm and W anc giving ID and closedown in an eastern European-like language f/by closing IS. 9665 at 2301-2340 noted with news in EE being heard M-F, f/by the FF pgm at 2315. (D'Angelo, PA)



Don Jensen, left, the late Clayton Howard of HCJB and whatshisname in 1967.



Rick Barton's neat shack in El Mirage, AZ.

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MOROCCO—Radio Medi Un, 9579 at 2337 in AA with M.E. male vocals and cheering between selections. (Coady, ON) 2347 with M/W talk but noise made determining the language a problem and apparent news at 0000. (D'Angelo, PA) 0418 in AA with talks and music bridges. (Parker, PA)

MYANMAR—Myanmar Radio (p) 9730.8 relaying Padauk Myay FM running way past schedule, noted several recent mornings in the 1045-1135 time frame. M/W talks in unid language. (Perry, IL)

NEW ZEALAND—Radio New Zealand International, 6170 with vocals and M presenter at 1340, 9700 with pops, ID and news from 1550 tune in. (Barton, AZ) 9655 at 1130 with *Mailbox* pgm. (Coady, ON) 9700 at 1100 with program on opera singers of the past. (Fraser, ME) 11725 at 0510-0515 with news on budgets and clips of the parliamentary debate. (Wood, TN)

NICARAGUA—El Buen Pescador, 8989u in SS with an impassioned preacher at 2329. (Coady, ON)

NIGERIA—Voice of Nigeria, 7255 with M in (I) Hausa with some short Afropop, then news at 2255, ID and closedown with orchestral NA at 2259. (D'Angelo, PA) 15120-Ikorudu with Afropops and talk of the performers f/by listener letters and mentions of having a new transmitter. (Wood, TN) 15120 at 1555 giving frequencies and preparing for closedown. (Brossell, WI)

NORTH KOREA—Voice of Korea, 9435 at 1540 with M in KK with a soprano vocalist. Seemingly, they have dropped 9335. Also noted on 9665 at 1515 with a soprano vocal, 11710 at 1715 with an unhappy-sounding M in KK. (Barton, AZ)

Korean Central Broadcasting Station, 11680 in KK at 2042 with variety of classical and instl music to time pips at 2100 and M with news. (Sellers, BC)

OPPOSITION—Democratic Voice of Burma (via Armenia to Burma), 11595 at 0007 with talks in Burmese, W talking over instl music at 0024 f/by M with seeming ID and their closedown routine. (D'Angelo, PA)

Radio Payam e-Doost (via Moldova to Iran), 7460 at 0246 with W in (I) Farsi at 0246-0315*. More talks at 0304 with some music mixed in until carrier cut at 0315. (D'Angelo, PA)

Sound of Hope, Taiwan to the mainland, 13530 in Mandarin at 1445. (Brossell, WI)

Radio Miraya (Bulgaria to Sudan), 0422-0437 with W asking questions about agriculture, Minister of Finance, universities and a spend-

ing bill, f/by pgm previews, jingles and into AA at 0439. Next night noted opening in EE at 0415. (D'Angelo, PA)

Voice of the People (South Korea to North), 3480 at 1230 with W in KK over co-channel North Korean jammer. (Barton, AZ)

Nippon No Kaze, 9965 via Palau in listed KK at 1545. (Brossell, WI)

PAPUA NEW GUINEA—NBC Sanduan, 3205 at 1217 in Tok Pisin with island music, ancr took phone call at 1224. Poor and fading as the sun rose at my location. (Sellers, BC) NBC-Madang (New Guinea), 3260 at 1202 with W and news in EE, talk in Tok Pisin on education. ID for "National Radio 90.7 FM" inviting call-ins for a quiz pgm. Off suddenly at 1208. (Sellers, BC)

Wantok Radio Light, Port Moresby (Papua), 7325 heard at 1219 with Christian songs, M ancr and definite ID prior to another song. (Sellers, BC)

PERU—Radio Vision, Chiclayo, 4790 with great Peruvian music and a good signal at 0847, possible ID at 0903 but the music was winning over ancr speech. (Wilkner, FL)

Radio Cultural Amuata, Huanta, 4955 at 2359 with a hyper W with partial ID and into brief OA musical bridge. (Wilkner, FL)

Radio Libertad, Junin, 5039.1 at 0945 with SS soprano vocal at 0946. (Wilkner, FL)

PIRATES—Captain Morgan Shortwave, 6925u at 0153 with occasional pop/rock and dead air in between. Email to <captainmorgan-shortwave@gmail.com>. (Hassig, IL)

Rave on Radio, 925u at 0207-0155 with mournful C&W. I find this music too sad. <raveonradio@gmail.com> (Hassig, IL)

Wolverine Radio, 6935u at 0240-0258* with rock vocals with M ancres and station ID at 0247 just prior to close at 0256. (D'Angelo, PA)

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 prizewinner is **Harold Sellers**, of Vernon, BC, who now sports a Universal Radio T-shirt. I hope it's warm enough to wear on those early morning listening sessions he does from his car. Maybe thoughts of Universal's giant catalog filled with radio goodies will be enough to keep him warm on those pre-dawn mornings. You can also check out Universal's super collection on their website at <<http://www.universal-radio.com>>, which also includes a long and current list of their reconditioned equipment bargains. Write or call them at 6630 Americana Parkway, Reynoldsburg, OH 43068 (614) 866-4267 to discuss your needs or request a free catalog.



Ted Cohen, N4XX, credits the G.I.G. column for his tour of the BBC, shown in this photo collage done by his wife, Susan.



Radio Cincos de Mayo's name sounds as if it was a 60-meter Peruvian, unearthed by Ralph Perry around 1000 one winter morning. Actually, it's a pirate using 6925u, QSL'd by Rich D'Angelo.

Radio Cincos de Mayo, 6925u at 0022 with M anc with SS IDs and email of <radiocincodemayo@gmail.com> hosting pgm of Mexican-type music. (D'Angelo, PA)

WDDJ, 6935u with soft rock and various oldish pops at 0150. (Hassig, IL)

Delta Fox Radio (t) 6930.9 at 0001-0027* with M/W and some sort of drama discussion f/by some vocals. Talk of first wedding in outer space and closing anmts at 0027. (D'Angelo, PA)

Left Lane Radio, 6925u at 0015 with pop/rock things. (Hassig, IL)

XLRS, 6925u heard at 0100 with dance music and esoteric rock. (Hassig, IL)

Red Mercury Labs, 0100 with a variety of '70s and '80s pop/rock. <redmercurylabs@yahoo.com>. (Hassig, IL)

Black Cat Radio, 6925 at 0232 with a Memorial Day pgm, heavy metal version of the NA. (Hassig, IL) 2246-2333* open and close with SSTV sounds, two M anc with periodic IDs and email address as <blackcatradio@gmail.com>. (D'Angelo, PA)

All Along Watchtower Radio, 6925u at 0109 with pop/rock. Email ancd as <aatwradio@gmail.com>. (Hassig, IL)

WFUQ, 6925u heard at 0010-0112 ending pgm with rock number, "Happy Trails," mentioned "free radio café" and "good night." (Hassig, IL)

Radio Free Whatever, 6945 at 2154 with DJ "Dick Weed" sign on with USSR NA, number by the Ramones, mentioned reports from various places in North American, heavy metal numbers. No address noted. (Hassig, L)

ROMANIA—Radio Romania International, 7335 at 0111 with a classical music pgm in Romanian and 9700 at 0542 on ethnic discrimination in Romania's educational system. (Klauber, NY) 9700 at 0537-0544 on Romanian agriculture and on Romanians living in Spain having trouble finding work there; 9740-Tiganesti at 2338-2357* with M in SS and pgm of Romanian folk tunes, ID at 2356, f/by their familiar IS; 15300-Tiganesti heard at 2122-2145 with W in SS playing

Romanian folk tunes. Best signal on the band. (D'Angelo, PA)

RUSSIA—Voice of Russia, 9465 via Armenia at 9453 in SS. (Parker, PA) 13800 at 2030 sign on with *Week in Review* and news, 9465 with *As the World Turns* pgm on events in Russia. (Maxant, WV) 15670-Novosibirsk at 1302 with W and EE news, //12030-Vladivostok. (Sellers, BC)

SAOTOME—VOA's Afia Darfur Radio, 7260-Sao Tome Relay in an AA dialect at 0302 with M and news and correspondents. (Coady, ON) Voice of America, 1900 in FF at 2114. (Brossell, WI)

SAUDI ARABIA—Broadcasting Service of the Kingdom, 15205 in AA with a prayer service at 1743. (Klauber, NY)

SINGAPORE—BBC-Far East Relay Station, 9810 at 1520 with a long talk in (l) Pashto. (Barton, AZ)

SOLOMON ISLANDS—Solomon Islands Broadcasting Corp., 5020 at 1153 with a country song, 1200 close with brief anthem, ID and frequencies, then cut off in mid-sentence. (Sellers, BC)

SOMALIA—Radio Hargeisa, 7120 at 0359 with a clear mention of "Somaliland" and then (p) news in Somali. (Brossell, WI)

SOUTH AFRICA—Channel Africa, 7230 at 0510 on a shark attack off the coast and into world news. (Maxant, WV)

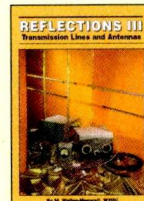
Radio Sonder Grense, 3320 at 0030-0345 with good signal and classical music and M anc with EE comments. (Wilkner, FL) 0204 in Afrikaans with local pops and M with small talk, string of ads and back to pops at 0220. (Coady, ON) 0401 with talks in (l) Afrikaans. (Brossell, WI), 7285 in Afrikaans at 0506 with anmts about upcoming pgms. (Parker, PA)

SOUTH KOREA—KBS World Radio, 9800 via Wooferton at 0214 with M/W reading news, and at 0715 and M hosting phone calls, 15360 in RR at 1805 with M reading news. (Klauber, NY) 11810 at 2207 with W reporting on South Korean-Thai relations ending news. (Coady, ON) 2215 with news by M and W, (Fraser, ME) 15575 at 1334 with pop

REFLECTIONS III

by Walter Maxwell, W2DU

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features hosted by W anc with short EE talks. (D'Angelo, PA)

SPAIN—Radio Exterior de Espana, 3350-Costa Rica Relay at 0225, //6125, with a musical bridge and W with brief talk and interview in SS. (Coady, ON) 9535 with W in SS at 0248, then a M hosting listener calls. (Klauber, NY) 11815-Costa Rica with live p-b-p sports. (Barton, AZ)

SUDAN—Radio Omdurman, 7205 in AA at 0238 with Qu'ran, M with AA talk and a couple of Middle Eastern musical bridges. (Coady, ON) 0303 with AA news f/by a music pgm, mainly covered by amateur QRM. (D'Angelo, PA) 9505 at 0403 with M and AA news and local music pgm. The signal began deteriorating around 0420. (D'Angelo, PA) 0441 with indigenous rhythmic music. (Parker, PA)

SWAZILAND—Trans World Radio, 9500 at 0500 with EE religious talk, music and an offer for a Bible course. (Miller, GA)

TAIWAN—Radio Taiwan International, 15440 via Florida at 2220 on possible sighting of an extinct Asian leopard. (Fraser, ME) 15485 with a call-in pgm and questions about Taiwan. (Brossell, WI)

Yuye Fishery Station, 11549.8 with its Wednesday shortwave transmission from *0859 with IS and W talk, into CC chant-like music and talk to carrier cut at 0929, IS again at 0929 and W ID with nice modern CC vocals and discussions. Temporary carrier cut again at 0940 and then end of pgmng at 0958*



Pirate SDF1 Radio QSL'd D'Angelo for his reception via Pirate Radio Boston on 6930.



Here's a view of Alex Klauber's listening post in Oneida.



KBS World Radio, South Korea, airs a program called *Bridal Mask* which QSL'd D'Angelo for his reception via the Skelton (England site).

(Perry, IL) (**NOTE:** *If I had a testosterone award for logs that would be the runaway winner for this month!* – gld)

THAILAND—Radio Thailand, 9390 at *1200 sign on with EE ID, bells and chimes before going into the Malay service which runs to 1215. Back to EE at 1230. (Perry, IL) 1237 with M/W doing news in EE. (Sellers, BC)

UGANDA—UBC Radio, 4976 at 0305 with Afropops, M/W talk about local youth. (Coady, ON) 0400 with EE news. (Brossell, WI)

UNITED STATES—Voice of America, 9855-Sri Lanka relay at 0000 with news and into M/W and news in Tibetan. (Coady, ON) 12040-Philippines relay in listed Mandarin at 1443. (Brossell, WI) VOA/Deewa Radio, 12035-Kuwait Relay with news in Pashto at 0120, 15115 in PP at 1733. (Klauber, NY)

Radio Free Asia, 9905 via Palau in (I) Mandarin at 1542, 11945 via Tajikistan in listed Mandarin at 2132, 11995-Northern Marianas in (I) Korean at 2133 and 15480 in (I) Mandarin at 1524. (Brossell, WI)

Radio Free Europe/Radio Liberty, 9740-Lamperthein relay in (I) Circassian at 0353. (Parker, PA)

Radio Farda, 7280 via Nauen at 0127 with (I) Farsi pgm with vocals, time pips to 0130 f/by ID and news. (D'Angelo, PA)

Radio Marti, 5980 in SS at 0752, ID at 0758 and into SS news by W at 0800, 7565 at 0239 in SS with phone calls. (Klauber, NY)

Adventist World Radio, 15170 at 1750 in (I) Kabyle language. (Klauber, NY)

WTWW, Tennessee, 5830 reading scriptures at 0205, 9930 at 1855 with two M on Bible study. (Klauber, NY)

WWCR, Tennessee, 3125 at 0547 with blues, rockabilly, and country. (Wood, TN) 4840 at 0000 asking for donations, f/by Gospel things, 5890 at 0209 with a preacher, and 9980 with Brother Stair. (Klauber, NY) 15825 at 1437 with *The Talking Machine Show*. (Parker, PA)

WRNO, Louisiana, 7596.4 heard at 0302 with M vocals, ID. (D'Angelo, PA)

WRMI, Florida, 9955 at 0300 with a best from the Rein-Main Radio Club in EE/GG with talk on the club's activities, along with musical numbers. (D'Angelo, PA)

WHRI, Indiana, 5920 at 0208 with a pgm on pirate radio, 7315 with news at 0100 f/by music, 9840 at 1900 with M on Bible study. (Klauber, NY)

WINB, Pennsylvania, at 0024 with religious programming. (Klauber, NY)

WBCQ, Maine, 7490 with Brother Stair at 0233. (Klauber, NY)

WEWN, Alabama, 7555 in SS monitored at 0535 W talking in SS in sequence with M ancr, it sounded like she was talking on the phone. (Klauber, NY)

VATICAN—Vatican Radio, 11750 on deaths in Syria, and times/frequencies of broadcasts. (Maxant, WV) 13765 at 2020 with two M in EE. (Klauber, NY)

VIETNAM—Voice of Vietnam, 6135 via Wertachtal at 2024 in (I) Russian. (Brossell, WI) 6175 via Cyprus Creek in SS at 0304 with W reading news. (Klauber, NY) 9840 at 1252 on education there, then traditional music to closing anmts at 1257, //12020. (Sellers, BC)

ZANZIBAR—ZBC Radio, 11735 with lively W vocals at 2025, M with talk in Swahili, then M vocals. (Coady, ON)

And there you have it. Sincere thanks, high fives and all that good stuff to the following who came through with their reports this month. Namely: Steve Handler, Buffalo Grove, IL; William Hassig, Mt. Pleasant, IL; Mark Coady, Peterborough, ON; Joe Wood, Greenback, TN; Rick Barton, El Mirage, AZ; Charles Maxant, Hinton, WV; Rich D'Angelo, Wyomissing, PA; Alex Klauber, Oneida, NY; Harold Sellers, Vernon, BC; Bob Wilkner, Pompano Beach, FL; Bob Brossell, Pewaukee, WI; Rich Parker, Pennsburg, PA; Ralph Perry, Wheaton, IL; Bob Fraser, Belfast, ME; and John Miller, Ochlocknee, GA. Many thanks to each of you!

Until next month — good listening!

That Old Red Head

by Shannon Huniwell,
WPC2HUN
<melodyfm@yahoo.com>

“Mr. Godfrey, the Old Red Head, is dead,” Aunt Gretchen added. “Long live Old Red Head!”

Jared Raynor's Aunt Gretchen and Uncle Corkey had an odd little kitchen radio they called the *Old Red Head*. At least that's what the *Pop'Comm* subscriber thought when his eccentric relatives would bark the command, “Fire-up Old Red Head!” within seconds after having put the kettle on for breakfast. The tiny AM's name also came with an obvious clue. Reportedly, sometime during the early 1950s, Uncle Corky — no doubt in one of his playful fits of reckless abandon — had sloppily brushed leftover barn paint across the top of the diminutive two-tube Arvin. Some 20 years later when Jared spent what he defines as “the silliest spring vacation” of his childhood with the kooky couple, that red-topped receiver remained a focal point in their morning ritual.

“Morning Miss Gretchen. Did you sleep especially well?” Uncle Corky would yawn as he trudged into the cramped kitchen of the shrimpy Boston area home and still sporting his baggy polka dot PJs.

“You ought to know, as you were holding onto me for dear life and snoring like a jack hammer all night long!”

“Well, I bet you wouldn't complain if it were Old Red Head who was the one sawing a few logs

during the wee hours,” Uncle Corky predicted as he suggestively smooched his over-dramatically protesting wife on the back of the neck.

“Aw, go on now!” she fenced at him with a spatula. “Quit that stuff before you poison young Jared with your worldly ideas!” At that, Uncle Corky usually grabbed the longest cooking utensil he could find and engaged his petite mate in a sword fight that ran the full length of the pair's two-tone green linoleum floor. Somewhere between the cry of his uncle's “On guard!” and Aunt Gretchen's satisfied “Touche!” the taller of that daring duo would exclaim to Jared, “Quick, Boy, fire up Old Red Head! That should calm her down.”

By this time, Jared was in hysterics as he carefully maneuvered through the lanky man's and even skinnier wife's Musketeer mayhem and then quickly reached for the radio. Jared recalls that it took almost a minute for the thing to warm up, revealing an obvious AC hum and finally “an incredibly boring radio show,” at least from a kid's early 1970s perspective.

“I heard this slow-talking sappy guy,” the *Pop'Comm* reader remembers.

“The avuncular geezer sounded like he was smiling through tranquilizers and chatting with

Photo A. Sans a blotch of gooey-looking red paint atop its “unbreakable duo-tone metallic cabinet,” here's an Arvin “Arvinet” like the one in our story; a 1938 mini. Advertised to perform as well as a radio with four tubes, this model used only two “double purpose” components, a 25B8GT and 70L7GT. Jared Raynor recalls that the “dial was backwards,” as the bottom of the broadcast band (540 kilocycles) was on the right of the dial, opposite most other makers' models.

THE MIGHTY ARVIN
Arvinet

MODEL 40A
IVORY FINISH
Illustrated
1/2 Actual Size
\$695
LIST
WITH AERIAL
I.C.S. Columbia, Inc.



← So Small It Tucks Away into Luggage to Take Anywhere

SPECIFICATIONS MODELS 40 AND 40A

<p>Operates on AC-DC. Two new-type, double purpose tubes, 25B8GT and 70L7GT, produce normal 4-tube performance.</p>	<p>Band Coverage 540 to 1750 KC, with some police at high frequency end.</p>	<p>Power Output 1 1/2 Watts. Power input only 2 1/2 watts. Sensitivity—200 microvolts at 200 milliwatts output.</p>
<p>Attached aerial, 20 feet. Uses no line cord resistor or ballast tube.</p>	<p>7-in. Electro-dynamic Speaker. Full volume control and two-gang tuning condenser. Ivory plastic tuning and volume control knobs.</p>	<p>Unbreakable Cabinet in ivory or walnut enamel. Duo-tone metallic, embossed dial and control face.</p>
<p>SWANKY SUEDE CARRYING CASE Illustrated below. Made of durable ply zeed, bonded to rubber. Fawn and brown, with ivory lining. Zipper fastener and double strap handles. Protects radio—makes it easy to carry separately, or pack with luggage. List price, only \$100</p>	<p>Compact Size, 6 1/4" wide, 5 1/2" high, 3 3/4" deep.</p>	<p>UNDERWRITERS' APPROVED—ONE-YEAR FACTORY SERVICE GUARANTEE</p>



Photo B. Word count parameters in the main article didn't allow any coverage of the red radio hat pictured on June 1949's *Radio Electronics*, but *Pop'Comm* reader Jared Raynor's Uncle Corky brought one of the weird units home from some charity rummage sale and promptly crowned his wife with it. He then pronounced her an official "radio redhead," his term for rabid fans of the Old Red Head, Arthur Godfrey. "The crazy thing never worked right," Jared notes. "My Uncle couldn't find the correct batteries to light the tubes, so all we got was faint static and some buzz from his electric shaver!"

equally monotonous guests, some of whom were asked to sing the style of songs best suited for little round speakers in a department store ceiling."

The Nicest Guy on America's Airwaves

Neither Jared nor his Uncle cared much for the easy-going fellow on Aunt Gretchen's radio ... but Aunt Gretchen sure did. It was she, Jared soon deciphered, whom most affectionately referred to the sappy announcer — *not* that cute, carrot-top Arvin radio — as Old Red Head, an exaggerated color reference to his thick mane. And, apparently millions of other media consumers were in strong agreement with Aunt Gretchen's glowing assessment of this CBS broadcasting star, Arthur Godfrey. So was President Dwight D. Eisenhower.

Circa 1955, Eisenhower quietly asked the media personality to record a series of public service announcements for emergency airing immediately after a nuclear war. Ike figured that any folks surviving an atomic blast could be calmed down simply by hearing Old Red Head suggest that everything would be OK if they just stayed tuned for news and official information.

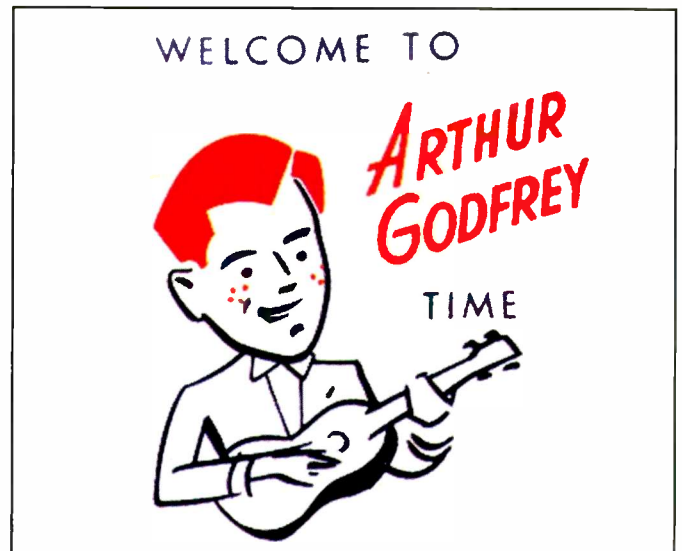


Photo C. Studio audience members of Arthur Godfrey's morning radio show were treated with sugar packets to sweeten their complimentary tea or coffee. This red-headed graphic graced the little bags and got the CBS visitors in a jovial mood to cheer on their favorite radio personality — applause and laughter that Godfrey's technical staff were ready to capture on well positioned ribbon microphones.

While Godfrey's relaxed voice had a peaceful effect on Aunt Gretchen, Uncle Corky branded Old Red Head as a "phony," though didn't dare make that pronouncement if his wife was in one of her moods. On her talkative days, she boasted of having been one of Godfrey's very first listeners back in Virginia, and could recite his biography on par with any Hollywood publicist. Jared remembers Uncle Corky's hands waving in protest prefacing his complaint, "Oh no! Gretchen please, not Old Red Head's life story, again!"

Truth be told, however, in terms of authentic radio experience, Godfrey was the real thing. Not only did his resume boast commercial broadcaster, but included foundational years as a Naval and Coast Guard shipboard radioman, proficient electronics technician, and licensed amateur radio operator — K4LIB. Near the end of his Coast Guard hitch, Godfrey put on his happiest Vaudeville-esque voice, tuned-up his faithful ukulele, entered a Baltimore talent show, and parlayed the chance 1929 event into a modest run as host/performer on a peanut whistle radio station there.

He followed this with a gig on larger WFBR Baltimore, and took a staff announcer position at NBC's Washington-based WRC. A 1931 car crash kept him home and close to the radio for hours on end. Time he devoted to analyzing the way "typical" announcers conveyed the words on their scripts. Godfrey soon realized that most all of them "sounded" like radio announcers rather than real people. By the conclusion of his recuperation, he decided that when he returned to work, he'd address the microphone as if it were someone he knew well. The resulting folksy, one-to-one delivery — with a friendly dose of smile in his voice — rapidly connected with DC-area listeners. So much so that CBS hired him to helm *The Sundial Show*, a pioneering version of the morning drive format on its Washington owned and operated outlet, WJSV.

Godfrey wasn't the complete faker Uncle Corky judged him to be. Rather, Old Red Head developed a large ego and wore his heart on his sleeve. Though he possessed what, at best could



Photo D. Occasionally, Arthur Godfrey would take his morning radio show on the road, hosting it as a local promotional event from various CBS affiliates. Here, Old Red Head is the big fish in a small pond at Harrisburg, Pennsylvania's WHP, where station officials were sure to prominently position their mike flags for the photographers chronicling the special appearance. Though it looks as if Godfrey — or perhaps WHP's star announcer, Dick Redmond (at left) — required Kleenex® tissues, a Thermos® of chicken soup, and Bayer® aspirin, the products were props supplied by Godfrey's sponsors. Reportedly, Godfrey would sometimes draw out product names (as in Bayer *ass*-pir-in) to make them more memorable for listeners and to needle the sales staff.

be called a “pleasant” singing voice, he often sang as if it were his only calling, often intrinsically prompted to burst into song with first-class guest crooners. This enthusiasm combined with occasional opinionated quips bathed in the friendly delivery of a helpful neighbor, made him a radio host increasing numbers of listeners raptly trusted.

CBS capitalized on Godfrey's overwhelmingly positive audience feedback by awarding him the host spot of *Professor Quiz* in 1937 and later moved him from its Washington outlet to the company's New York City flagship (today's WCBS).

Circa 1942-1945, portions of his morning gig were broadcast over Columbia's Big Apple and DC stations. In April 1945, however, Godfrey was headquartered in the nation's capitol when President Roosevelt died. Old Red Head knew that FDR had been one of his loyal listeners, and the normally jovial radio personality was so severely grieved during his on-the-spot coverage of Roosevelt's funeral that his audience could feel the emotion of the procession as if each one of them were standing along side Godfrey, hats in hand.

Breaking into tears, Old Red Head requested over the air that the studio complete the broadcast — which was about to conclude anyway. Nonetheless, this dramatic exit made a significant impact not only on local listeners, but on CBS brass who rewarded Godfrey by permanently moving him to the network's New York facility where he could helm a coast-to-coast, Monday through Friday morning radio slot, titled *Arthur Godfrey Time*.

The largely unscripted variety program featuring Old Red Head's cheery banter, ukulele strumming, singing, soft interviews, lots of guests, and live commercials. Within a couple of

K4LIB Paeonian Springs, Va.

To Radio Confirming our QSO

of 195 At E.S.T.

On MC Your Sigs R S T

Collins 75A4 Receiver

Collins KWS1 Transmitter

Tri-Band Rotary Beam

Best 73's
Arthur Godfrey
73's
Arthur Godfrey.

Photo E. In addition to his CBS endeavors, Arthur Godfrey found time to keep his airplane pilot's license active and make an occasional contact or QSO from a ham radio station based in his Virginia farmhouse. Old Red's QSL card noted he ran a Collins KWS1 transmitter and caught signals with a Collins 75A4 receiver.

years of the show's debut, Godfrey was also doing other CBS audio broadcasts, such as the nighttime offering, *Arthur Godfrey's Talent Scouts*. By 1948, Columbia management, eager to do serious video battle with chief competitor NBC, wagered their biggest personality asset on the emerging TV jackpot. The gamble paid off, first with a simulcast of Godfrey's talent program and then, in 1952, by televising his morning radio show. (**WATCH:** *A video of Arthur Godfrey's Talent Scouts* <<http://bit.ly/147Mqwi>>. -WPC2COD) And there were several other regular TV projects Godfrey hosted both daily and weekly, making him the most ubiquitous person on Truman/early Eisenhower-era electronic media. Reportedly, he single handedly accounted for about 15 percent of CBS' revenues and would have done even better had he not embroiled himself in a controversy with popular performer, Julius LaRosa, a talented young crooner whom Godfrey had originally discovered and brought to nationwide fame on his CBS broadcasts.

Uncle Corky's Complaint

LaRosa's first infraction was committed by surpassing Godfrey in fan mail, arguably making Old Red Head see red and hyper sensitive to LaRosa's having skipped a mandatory dance class Godfrey arranged for his performers. When LaRosa hired a manager to help further his career, Godfrey considered the action as a fatal insult. As the clock ticked toward the conclusion of his October 19, 1953 morning show — after the TV simulcast portion had ended for the day — Godfrey prompted LaRosa to sing a particular song. After which Godfrey termed it LaRosa's “swan song,” then quickly and somewhat cryptically wished him luck, thus firing him right on the air, leaving no time for a response.

Uncle Corky claimed that the incident exposed Godfrey's broadcast warmth as being only skin deep and revealing a heart as cold as ice. He recalls being so angry about LaRosa being humiliated by someone who portrayed himself like the youthful singer's caring grandfather that he immediately phoned the switchboard of local CBS station, WEEI 590, to register a strong complaint. Apparently, even the girl on duty there concurred with Uncle Corky's assessment of Old Red Head's “insensitive treatment of a decent kid who just wants to sing and meant no harm to anyone in his life!”

All across the Columbia chain, Uncle Corky and that candid WEEI telephone operator had company. So much so that Godfrey was pressured into staging a press conference. To make matters even worse, however, the Old Red Head blamed the firing on the fact that the young crooner wasn't humble enough. Many folks perceived Godfrey's charge to be blatant hypocrisy, public opinion solidified by Godfrey's subsequent firings of other popular cast members, and via rumors of the CBS host's mercurial handling of his people when the On-Air light wasn't illuminated.

Certainly by the early 1960s, Godfrey's TV fortunes had waned considerably, though his CBS morning radio show continued generating sufficient profits for the audio division to keep him on the Network until April 30, 1972. Coincidentally, that date was included in our story's Jared Raynor's visit to his Aunt and Uncle. All three heard Godfrey's final morning show broadcast on CBS' Boston property, WEEI 590. Only his Aunt Gretchen grieved the loss, an emotion that was reasonably assuaged by his serendipitous tuning of the goofy red-topped Arvin to the old WCRB, a local Boston-area AM that defined the commercial classical music format and became a new and classier ritual in his relations' breakfast-time radio listening.

The WCRB That Used To Be

Like the Columbia Broadcasting System's "original" 590 WEEI (*NOTE: now a callsign held by a former Boston rival — once known as WHDH — on 850 kHz. — WPC2HUN*), the "real" WCRB's handle is today claimed by another Beantown area station; the former WSSH (FM) Lowell, Massachusetts. WCRB was named the Charles River Broadcasting Company with the famed New England waterway in mind. The Federal Communications Commission OK'd the fledgling station's identity during the fall of 1947, not long after granting Charles River Broadcastings' ownership, Washington DC-based communications lawyer Richard O'Hare, and a pair of Bethesda, Maryland businessmen — John Hoffler and L.P. Liles — a daytime-only construction permit to run 500 watts of power on 1330 kHz at Waltham, Massachusetts.

An obscure reference in the 1950 *Broadcasting Yearbook* lists Newton as Waltham's WCRB's co-city of license. For reasons long forgotten, Mr. Hoffler sold his interest in the station to a Mr. Deuel Richardson, a few months prior to WCRB's late 1948 debut.

When the Waltham AM took to the air, it did so as a suburban service, independent of the big city radio/network fare associated with the major market signals that blanketed its hometown some 10 miles northwest of downtown Boston. According to our radio archivist, Jan Lowry, WCRB'S programs were produced in "studios in the Commercial Building at 4 Gordon Street. Its transmitter and tower were located on South Street, south of center Waltham."

About a year after WCRB's birth, the individual most associated with the facility's future renown, bought out L.P. Liles and realized a 33 percent share in the licensee firm. Theodore "Ted" Jones' 1949 WCRB arrival coincided with the modest daytimer jumping its RF output to a full kilowatt. Jones had gotten into radio at WKIP Poughkeepsie, New York in 1940 as way to augment wages earned doing farm work during the daylight hours. When the sun set, the conscientious World War II objector peddled advertising/airtime for WKIP and by 1945 became sufficiently skilled at radio sales to convince the owner of WHOB Gardener, Massachusetts to hire him as the general manager.

Reportedly the conservative licensee regretted that decision, however, when hearing a public affairs program praising Planned Parenthood over WHOB. Jones got canned, took legal action against his erstwhile employer, and won \$3,000 in resulting arbitration related to the case. The money became available just as Jones discovered fledgling WCRB and the fact that a piece of it could be had by an industrious individual with some radio sales/managerial experience and several thousand bucks in cash.

By 1952, Ted Jones' continued investment in WCRB netted him a 50 percent slice of the Waltham radio action. His influence was seen in WCRB's 1952 move to 834 Main Street, Waltham, and a format switch the following year that would set the tone for the call letters' legacy offering — classical music.

When on the road selling his station's wares, Jones sampled Boston daytimer WBMS on 1090 kHz dubbed the World's Best Music Station, and admired its light classical programming. The outlet's sudden 1951 shift to country records gave Jones the impetus to co-opt the format on WCRB. That accomplished, he set out to petition the FCC for night authorization, gaining the go-ahead to install two new 200-foot-tall towers at the station's 750 South Street transmitter site in the summer of 1954 and begin 1,000-watt, full-time operation using a two-pattern directional array. Construction also included building studios at the transmitter shack.

In early 1957, day power was increased to 5,000 watts. WCRB program origination was then housed in tonier digs in Boston's Sheraton-Plaza Hotel. At that locale, Jones received word of Commission approval to use 5 kilowatts at night, a grant actualized in 1961. Jan Lowry wanted me to note that, by this time, WCRB was very well known in "good music" radio circles and "began syndicating its classical format on high-fidelity tapes. Known as the CRB Network, the service boasted affiliates from coast to coast." Jan indicates this was a short-lived venture, "phased out [circa 1963] when WCRB affiliated with the QXR Network in June of that year; airing classical music tapes recorded by the *New York Times*' WQXR AM and FM." Also ephemeral, "the QXR liaison ended the following year." WCRB's ownership was more comfortable producing its own brand of classical formatting that made at least a little bit of room for folk music and an occasional Broadway show tune.

Receiving The New Sound Of Some Very Old Music

In 1965, WCRB studios were relocated from the Sheraton to more economical settings back at the Waltham transmitter site. It was from this venue during April 1972 that WCRB's programming and daytime pattern's signal caught the attention of Jared's Aunt's two-tubed Old Red Head. That's not to suggest that the diminutive Arvin table radio cared anything about high-brow music, but when Jared Raynor's Aunt Gretchen was finally convinced of Arthur Godfrey's CBS cancellation, with faux tears streaming, she directed her nephew to end her misery and dial another station.

Who knows what possessed Jared to zip past the host of other signals between 590 and 1330 kilohertz. When Uncle Corky sniffed the first strains of symphonic sound on WCRB, however, he ruffled his hair into bangs, arranged his bathrobe as if it were a long-tailed tuxedo, ordered the boy to bring him the depleted paper towel roll protruding from the garbage pail, and began conducting the music with maestro-like concert hall flourish. The next WCRB selection — some lighthearted, morning-appropriate waltz — prompted his funny relatives to fully



Photo F. A late 1940s publicity still — showing a hefty control board — from the Raytheon Corporation’s broadcast equipment catalog shot at WCRB, the Waltham station which shared the electronics maker’s Massachusetts hometown. Raytheon almost got into TV station ownership, holding a 1940s FCC construction permit for channel 2 WRB(TV) Waltham. The firm never built its proposed commercial video outlet, but channel 2 in Boston debuted in 1955 under non-commercial ownership as public broadcaster WGBH-TV.

exhibit their ballroom dancing acumen, while Jared observed the whole non-sequitur scene through an incredulous grin. Practically breathless after the piece’s conclusion, Uncle Corky wheezed, “Kiddo, do not touch that dial again! It has found a new home.”

“Mr. Godfrey, the Old Red Head is dead,” Aunt Gretchen added. “Long live Old Red Head!”

“Hey,” Uncle Corky pointed. “Let’s call the Arvin radio, Marvin The Maestro, and let it bring us the classics at breakfast everyday.”

Aunt Gretchen, her Godfrey-withdrawal depression lifted, agreed and commenced cooking a huge omelet casserole crafted from lots of diverse leftovers. Jared recalls that it tasted much better than it looked ... especially when something as fun as the William Tell Overture was being broadcast.

It was shortly before Christmas 1979 when Jared next visited his Aunt and Uncle. He’d just finished the fall semester at a New Hampshire college, was heading home to New Jersey, and honored a

promise to spend a couple of days with “the favorite old Boston relatives.” By then, the little Arvin had been replaced by a small cassette boom box stocked with a nearby cabinet of various and sundry tapes suitable for a variety of breakfast tastes.

“Would you like the old Arvin Red Headed Marvin ... or whatever in the heck Aunt Gretchen called the darn thing?” Uncle Corky asked. “I put it down the cellar somewhere.”

Jared was assured that the radio still worked OK, but that WCRB kept changing “names and music” so much that the purchase of a tape player seemed the best solution.

Uncle Corky was probably referring to the AM outlet’s October 1975 switch to the WHET calls and an oblique Big Band/Sports format. Ted Jones retained the WCRB calls for the original’s sister FM that he debuted in 1954. That name distinction accomplished, Jones sold the AM station for \$850,000 in 1978. New ownership (Anthony Martin-Trigona) established WHET’s studios at 473 Winter Street in Boston and instituted a beautiful music format. Sometime during April 1979, WHET became WDLW with a country music focus. A cable TV company — Acton Communications —

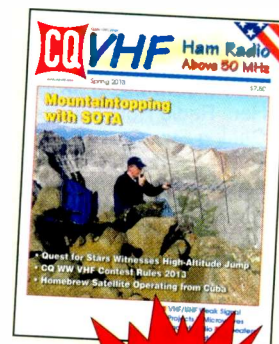
secured WDLW for \$875,000 in 1982, after the previous owner was sent to prison for mail fraud and other infractions.

Acton sold WDLW in April 1989 for \$1,150,000 to James LaMarca’s Boston Radio Group, which moved the studios to a Cambridge, Massachusetts address and used a Motorola Q-QUAM AM stereo generator to give the 1330 AM left and right channels. Though the call sign WAFN was requested by LaMarca and subsequently FCC approved, the letters were never used on the Waltham station. By late 1989, however, another name change request — this time to an undeniably official radio-sounding set of letters, WRCA — went into effect concurrently with 1330’s exit from country music and installation of something termed a “showbiz” format. That lasted until WRCA’s 1991 inauguration of ethnic fare including Polish, Haitian, Indian, and Arabic content prefaced a 1992 inclusion of urban contemporary music. SMY Media bought WRCA in 1993 for \$1.5 million, and majored its new property in Tropical Spanish music programming. Three years later, a \$1.7 million sale to ADD Radio Group continued Spanish formatting and gave these owners a chance to cash out in 2000 with a \$6 million trans-

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action to Beasley Broadcast Group. This firm ran Spanish fare for a couple of years before settling on a “brokered ethnic” operation in which a smorgasbord of languages is offered by anybody with the dough to buy some airtime and target one of the dozens of minority groups living in the Boston metropolitan area.

Jan says WRCA’s footprint got potentially large enough to step into most every corner of this market when it “was granted an FCC permit in early January 2003 to raise power from 5,000 watts to 25,000-watt days and 17-kilowatt nights and change its transmitter/tower site from Waltham to Newton, Massachusetts, and change its city of license from Waltham to Watertown, Massachusetts.” The engineering and related local logistics took several years to complete.

“Finally in 2007,” Jan reports, “WRCA (the original WCRB) moved to the new Kintronics-brand transmitting facility at Newton, and power was increased. WRCA, as well as WKOX Framingham, and WUNR Brookline triplex from the site on shared towers.”

Meantime, WCRB’s classical music legacy continues under ownership of the WGBH Educational Foundation. Ted Jones had added an FM companion to

WCRB in 1954 partly by purchasing the remains of a defunct Haverhill, Massachusetts frequency modulation facility. Along with its older AM sister, WCRB-FM 102.5 participated in 1950s-era binaural broadcast (*NOTE: one channel of a “stereo” presentation transmitted on its FM frequency and the other channel aired over the AM –WPC2HUN*) experiments for which audiophiles would simultaneously listen to both bands. Jones’ Frequency Modulation arm was also a very early adopter of FM stereo multiplex transmission. In the December 9, 2009 issue of *Boston Business Journal*, Alan Earls notes that “these experiments and work by WCRB engineers contributed to the development of broadcast standards that were incorporated in modern multiplexing stereo. In fact, WCRB-FM was one of the first three stations in the world to broadcast in stereo, starting in 1961, using equipment hand built for the station by early high-fidelity gold standard, H.H. Scott, which at the time was based in nearby Maynard, Massachusetts.

“Greater Boston has a long history as a technology hotbed for audiophiles — it’s the original home to companies like H.H. Scott, KLH, Advent, Bose, Tivoli Audio, and others. Indeed, [a WCRB

engineer] recalls a ‘hi-fi’ show at Boston’s Hotel Touraine in 1954 attracting some 30,000 visitors in a single day. Intimately linked to that bit of history is the story of [commercial] classical radio station WCRB.”

The saga continued through the 2005 Charles River Broadcasting Trust (Jones had died in 1991) sale of WCRB-FM and new owners flipping the 102.5-MHz frequency, calls and format with a Lowell, Massachusetts-based Boston FM at 99.5 MHz. In 2009, WGBH interests acquired the 99.5 version of WCRB(FM), converted it to a non-commercial classical facility augmented by several repeater stations and translators.

Trying To Grasp A Few Radio Days Gone By

Jared admits regret that he had hesitated when given the opportunity to search Uncle Corky’s basement for the oddball Arvin. Now decades later and eons since both his colorful relatives passed, he happened to hear the tail end of a documentary featuring a brief clip of Arthur Godfrey’s radio program. The sounds fast transported him back to the dated linoleum and varnished plywood kitchen in his Aunt’s and Uncle’s shrimpy Cape Cod style cottage. There, on an envisioned countertop, proudly performed the tiny dual tube wonder. And, Old Red Head, ukulele in hands, warbled some campy tune through the radio’s 4-inch speaker grill.

Last winter, the memories led Jared to search for an Arvin just like Aunt Gretchen’s. Somewhere along the way, a former owner of the one Jared managed to acquire from an eBay seller snipped its power cord and inexplicably surgically removed various components from the dusty wire labyrinth beneath its chassis. That electronic disability discovered, Jared decided to download some classic Godfrey air-checks and piped the audio into the Arvin’s nicely survived speaker. A quick, misty shot of red from some dollar store spray can helped Jared further replicate his childhood on the auction site find. The results provided him with a touch of the epoch’s spirit. But just like the original WCRB’s reconstituted renaissance on a rimshot Boston-area FM frequency, the experience left him longing for the real thing and the long-ago times into which those now evaporated radio waves once danced so innocently.

And so ends another day of radio history on *Pop’Comm*.

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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/K16SN

'A Dial Twister's Delight' and KPRO Fuel the Memory Machine

Editor, *Pop'Comm*,

Well, *Pop'Comm* Editor Richard Fisher, KPC6PC, has done it with his piece headlined "A Dial Twister's Delight — The Hendricks 'Scout Regen' is a Throwback to Radios of a Bygone Era," **Photo A**, in the May edition beginning on page 10.

He has taken me back to my past when I was given my first crystal set, followed by a shortwave receiver — when a whole world was opened to me. *Literally!*

I was five years old when my dad moved us into his first house. He was just out of the Navy and had landed a job with the county in which he had lived since 1930.

That was also the same year that I was given a Lionel train set for Christmas, although the train seemed to be more for my father than for me.

As the years went by, I found a great many uses for the train set's transformer. I could use it to light up old series string-type Christmas lights, make electro-magnets by winding wire around large nails, and lots of things that probably would have horrified the Lionel Corporation.

So, for my seventh birthday, instead of receiving more Lionel track or another freight car, I got a crystal set kit! My father, who was just a little above having problems loading batteries into a flashlight, did his best in helping with the assembly of the kit by locating a nice piece of wood to mount the components on.

It seemed to take months for me to properly count out the turns of wire on a cardboard coil form, find additional screws to make a number of Fahnestock clips <<http://bit.ly/1cvVw7F>>, and properly mount the holder for the galena detector.

The instructions recommended a long-wire antenna and a good ground. There was enough wire left over from my experiments with the train set to drop a wire out of my bedroom window to a garden faucet next to the house.

The antenna wire came from a doorbell transformer that I took apart with a claw hammer and a screwdriver — used as a chisel. The secondary yielded enough enamel-covered wire to reach a tree about 50 feet from my bedroom window.

I didn't tell my parents that I was about to make the final connections, afraid I might be embarrassed if it wouldn't work.

I slid on the headphones and connected the antenna. Only a faint click was heard. I nervously checked my connections and ran the tuning bar across the part of the coil where I had sanded off the enamel insulation.

In my excitement I bumped the cat whisker. A loud click! "Adjust the cat whisker... I'd forgotten to adjust the cat whisker!"

Although this little crystal set didn't have lots of dials — not like the "Scout Regen," anyway — there were certain adjustments necessary for its proper operation. But, as was the case in May's *Pop'Comm*, I, too, was greeted by the strong signal of KPRO in Riverside, California. Only in those days, it was on 1440 kHz AM.

KPRO was Riverside's only radio station back then, **Photo B**. It was located in a large field in the middle of town. The large open area also served as

RECEIVER KIT REVIEWS, PART I

A Dial Twister's Delight

The Hendricks 'Scout Regen' is a Throwback to Radios of a Bygone Era

By Richard Fisher, K16SN

Some shortwave listeners like to park their receiver on a foreign broadcaster's frequency, lean back in the listening post chair, and soak in the dulcet tones wafting from the loudspeaker. Set it and forget it, as the TV pitchman likes to say.

Others, like me, are knob twisters. We lean in on the radio and constantly fiddle with the dials. Shifting to BFO (beat frequency oscillator) to check zero beat. Tweaking the antenna tuning capacitor for maximum signal. Playing with the audio filtering switch, volume, and selectivity controls. It's perpetual motion.

Many of us "twisters" might have cut our teeth in radio using a regenerative receiver, invented by the renowned Edwin Howard Armstrong. I certainly did.

The Major discovered that a tuned circuit added to the output of an Audion tube amplifier could be adjusted to dramatically increase the gain, and push the circuit into self-oscillation.

"The pure joy of SWling with the 'Scout' is largely found in continually tweaking the radio's four front-panel dials to get incoming signals 'just so.'"

Without getting overly technical, it was a breakthrough in receiver design. Both AM and continuous-wave (CW) Morse transmissions could be copied. Best of all: *there were more dials to fiddle with.*

Of course, Armstrong's experimentation was with high-voltage, cumbersome vacuum tubes. Fortunately, there have been great advances in regenerative receiver design since then using superior low-voltage, solid-state components.



Photo A. The Hendricks ORP Kits Scout Regenerative Receiver is a handsome all solid-state kit designed for two coverage ranges: 3.3 to 5.1 MHz and 5.1 to 10+ MHz — perfect for shortwave AM and sideband monitoring, as well as "reading the mail" on some popular amateur bands. (Photography by KPC6PC)

Photo A.



Photo B. As Shannon Huniwell, WPC2HUN, wrote in a caption for this picture in *"That Riverside Radio Summer"* (*Shannon's Broadcast Classics, Pop'Comm, May 2013, page 80*), "The kid who sprayed graffiti on that dead end sign probably eyed those KPRO sticks as ultimate avenues for his artwork. But a perimeter fence and individual fencing around each of the four towers discourages unauthorized entry. KPRO's specifies that those vertical radiators can send Riverside, California-area listeners 5 kilowatts during daylight hours and just 192 watts at night. (Courtesy of KPC6PC)"

Riverside's first heliport with connections to Los Angeles Airport — today known as LAX. Now the area is covered by tract homes.

KPRO played popular music of the time, **Photo C**, advertisements for local businesses, gave the important *Frost and Dew-Point Report* for the region's citrus growers, and featured the Sunday evening *Old-Time Revival Hour* with the late Dr. Fuller. By the way, his recorded broadcasts *can still be heard* on KPRO on its "new" frequency of 1570 kHz.

My parents would often find me asleep in bed at night with the headphones on, subconsciously listening to KPRO's *Dawn Patrol* program when the station went to a 24-hour format. No matter where I tuned, KPRO was all my crystal set would receive — *which was still a satisfying accomplishment for me.*

As the years moved on, and as my dad received promotions in the Riverside County Probation Department, we moved from that little house at Magnolia Avenue and Verde Street to a place near the University of California, Riverside campus.

The additional elevation helped as I graduated to an RCA Radiola Senior Regenerative one-tube receiver. My grandfather had given it to me, and I wish I still had it. Then I moved on to a Zenith Wave Magnet set, given to me by a neighbor working at March Air Field. He repaired radios in his spare time.

By the time I was nine, my dad gave in to the growing web of wires I had placed on his roof. The model train layout workbench in the garage was transformed into a workbench for my short-wave listening post. I was WPE6CIV in the old *Popular Electronics* Short-Wave Monitor program. And after a few years



Photo C. Anyone know who these musicians are? Years ago, they were apparently a hit at KPRO-AM in Riverside — posing for a picture with the station's call letters. (Courtesy of Don Jeffrey)

I had my first amateur radio station as Novice licensee: WN6FWH, and moved up to WB6DFV from there, **Photo D**.

Now, those were the days. Out there in the corner of my dad's garage I spent hours logging shortwave stations from all over the world. At all hours of the night the sounds of Radio Moscow, HCJB, BBC World Service, Radio Havana Cuba and the continuous din of radio amateurs from all over the world could be heard from the speakers of my Philco, Zenith, and Majestic receivers. And never a complaint from the neighbors!

I saved and saved my lawn-mowing money and finally bought a used Hallicrafters SX-28 from Mission Ham Radio Supply in West Riverside. I still have it. Yes, those were the days.

Thanks for a great regen article and all of the other things appearing in *Popular Communications*.

— Don Jeffrey,

Monrovia, California,

WPE6CIV, WPC6CIV,

11W3626-4, KFA3559, KAE1968,

ex-WN6FWH and ex-WB6DFV

Don: August 5 marked the 28th anniversary of my arrival in Riverside, and your thoughts have stirred the nostalgia in me, as well. I remember when KPRO had talk radio segments with local hosts firing up the audience about local issues. On a couple of occasions, listeners would call in and warn the hosts they were "coming down to the station." There was never any harm done, but it sure made for entertaining talk radio. Filling in more of the blanks about the station's history is so enlightening. Thank you! And I, too, get misty-eyed thinking about the radios I've played with in my hobby communications past. In fact, all of this attention to regenerative receivers has inspired me to restore a three-tube set I built as a teenager. Thank you for a most interesting contribution to "Across the Spectrum."

— KPC6PC

What's the Restoration Situation?

Editor, *Pop'Comm*,

First, I wish to thank you for providing many years of enjoyment. My interest has been in the restoration of radio equipment.

Following retirement from the plumbing trade, I'm affiliated with the Southern California Antique Radio Society (SCARS) as a hobby. *Popular Communications* and other publications have provided me with restoration-related reading of great value.

Lately, I've noticed that the magazine's *Wireless Connection* column has not been appearing consistently.

I realize technology has run away from those of us who think a cell phone should have a crank, but there is something about a glowing 01-A that warms the soul.

— Don Jensen

Don: You are a keen observer of all things Pop'Comm. Thanks for your query. We have been trying to gauge the interest in boat anchor restoration and Wireless Connection in particular. Your email adds another piece to our puzzle. We'd like to hear from as many Pop'Comm readers as possible to help us provide content that is most relevant and entertaining to them. Please stay tuned as we assess the feedback we've been getting regarding vintage radio restoration.

— KPC6PC

A Warm Welcome to Shannon's 15-Year-Old Protégé

Editor, *Pop'Comm*,

Regarding 15-year-old Ryan Archer, KPC6KPH's, companion piece to Shannon Huniwell, WPC2HUN's, "Shannon's Broadcast Classics" in the May 2013 *Pop'Comm*, page 78, **Photo E**.

Please allow me to add my appreciation for sharing his story with us about his great-grandpop. The article was very enjoyable and made me more than a bit envious of Ryan's relationship with him. His great-grandpop was, and is, so very proud of him, and Ryan has done his legacy justice already — and will no doubt continue to do so.

Ryan, enjoy that great radio collection — it is a real treasure!

— Robert Gulley, AK3Q,
Bellevue, Kentucky

Editor, *Pop'Comm*,

Please let young Mr. Archer — *an ancestor of Capt. J. Archer, U.S.S. Enterprise, NX-01, perhaps?* — take over Ms. Hunniwell's space for a while so she can come to Maine and *eggs-plore* her family roots here in Pittsfield and look up some radio history in the Pine Tree State. You know, WABI-TV in Bangor turns 60 this year!

Mr. Archer did a very good job with his first major league at bat. I hope *Pop'Comm* decides to keep him around a while before you send him back to AAA — as a member of the Pawtucket (Rhode Island) Red Sox, I hope.

— Don Hallenbeck,
KAAK-0783, KME1CW,
Pittsfield, Maine

Mr. Gulley and Mr. Hallenbeck: I can hardly believe people as far away as Kentucky and Maine have read my story in May's Pop'Comm. Wow! The magazine staff forwarded your emails. You are so nice to write me — and with such kind words. As you can tell, I miss Pop very much, but he must be smiling to see your letters about our story. Thank you for taking the time to say such nice things. I appreciate your emails very, very much.

— Sincerely, Ryan Archer, KPC6KPH

When 'Cutting the Cord' Is Your Only Option, Headaches Arise

Editor, *Pop'Comm*,

I read with interest the comments of Bob Phillips in March 2013's *Pop'Comm* concerning not "cutting the cord" to his cable system. (*SEE: "Before Cutting the Cord, Consider Cable TV's Benefits," Across the Spectrum, page 38.* — KPC6PC)

While I respect his decision, I find his expenditure of "less



Photo D. *Now those were the days!* Don Jeffrey had a special spot in his father's garage for his amateur radio station. In this classic photograph, circa 1962, his operating position was obviously *right in the operator's comfort zone.* (Courtesy of Don Jeffrey)

than \$150 a month" a bit pricy, considering that is my food budget for one month. Having to spend that amount in order to watch commercials seems excessive to me.

I live about 50 miles west of Washington, D.C. near the Shenandoah Valley of Virginia. I live on a ridge. While I am not the highest thing around, many of my neighbors are much lower than I am.

During the "analog days" of television reception, I used to receive between 28 and 34 television stations — depending upon your tolerance for snow on the TV screen.

Since the switch to digital, my winter reception amounts to six watchable stations. One is in mandarin Chinese, I assume. One is put out by the Ethiopian national broadcast service and is incomprehensible to me. One is *France24* in English, and one is shared between Irish TV, Indian TV, Israel TV, and the Pakistan national broadcast service, mostly in English. One is the English broadcast of CCTV — China Central Television — and one is *RT — Russia Today*, in Spanish.

In the summer, when the leaves come out on the trees, there is so much signal attenuation, the only watchable channels are the *France24* feed, and the *Russia Today* Spanish feed. Unfortunately, while I do speak a little Spanish, my ability in that language is about that of an eight-year-old — hence I cannot keep up with a "news-reader" (crawl) on the typical "CNN format" television station.

I began watching television in the 1950s, when black and white TV first appeared in the DC area. At that time, it only operated in the evenings. I had the honor of watching the first color television — the CBS/Columbia demonstrations of their color system, which was certified as the U.S. national standard before the RCA system deposed it. The CBS system used rotating color filters in front of a black and white television.

I later earned a bachelor's degree in electrical engineering and after that a masters specializing in communications from George Washington University in Washington, D.C. I have earned a living designing satellite Earth-terminals for the military and the State Department, as well as high-frequency SSB communications networks for long-haul communications links in various parts of the world.

I have done my share of link budgets for various systems, from HF to Ku band, and then had the hardware built and installed it.

My considered opinion is that whoever did the design work for these digital systems grossly *missed the boat*. They have cut

My 'Roary': A Great Grandpop and Real Radioman

By Ryan Archer, KPC6KPH

Amateur operators have their "Elmer," a term made up by a ham in 1971 meaning "a mentor." I've never heard of such a thing for SWLers or scanner monitors. So I'm declaring one now: Roary.

My Great Grandpop, Herbert "Roary" Wallace, Photo A, was the spark that ignited my interest in shortwave listening, scanner monitoring, CB, and radio history. Cross my heart: The OM — old man — had more stories than the announcer on *DXers Unlimited*, the weekly SWling show Grandpop and I often listened to out of Radio Havana Cuba. "All omegas radiotelephonists around the world, continuing to enjoy the revival of good shortwave propagation conditions for DX! I am your host here in Havana." Arnie Coro once opened the show on 11880 kHz.

Anyhow, Pop — that's what I called him when just my family was around — had a flourish of his own. When I was very little, he'd plop into an overstuffed, funny-smelling chair in the parlor, sit me on his knee and fill my imagination with the adventures of the Kon-Tiki Expedition, and foreign broadcasting during the World Wars, and how ham call signs came to be — his voice rising to a to a holler and then dropping to a whisper. I shivered as his eyes opened wide during the scary parts. The rest of the family rolled their eyes. Me? Spellbound!

As I grew older, the more stories Pop told, the more curious I became. He knew something about everything related to radio — from personal experiences, or from a friend of a friend. I



Photo A. That's my Great Grandpop Herbert "Roary" Wallace and Great Granny Margaret in their backyard. I don't know how long ago it was taken: The only thing Pop loved more than radio, was Great Granny. They were a perfect pair — just like me and Pop would come to be. (Courtesy of Margaret Wallace)

78 POP'COMM MAY 2013

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Photo E.

the power back so far, that unless you are just a few miles from the transmitter, you cannot get a usable signal.

I never thought that they would shut down broadcast television in this country, but they've done it. In analog mode, from my location between Winchester and Front Royal, Virginia, I could receive Norfolk (Channel 14); all the Richmond stations; all the D.C. stations; and all the Baltimore, Maryland stations. Also: Harrisburg, Pennsylvania, all West Virginia UHF educational stations, and Harrisonburg, Virginia.

With *exactly* the same receive equipment — antennas, low-noise preamps, and receivers — today, I can receive only what I noted earlier. This is with a 9-foot-long Yagi UHF antenna, equipped with a 4-dB noise figure mast-mounted preamp, low-loss coax, and Ham-M rotator.

Using the same antenna and down-lead against UHF push-to-talk police and fire communications in Norfolk, Richmond, and North Carolina, I note the same performance as was measured before the digital television changeover.

This shows that the antenna system is not degraded. I have tried three digital converter boxes, and they all produce the same reported signal quality measurements from the same few stations — indicating that the converter boxes are performing as well as they can.

It is highly unlikely that all three would be degraded exactly the same amount. Similarly, I have tried several television receivers on the output of the converters — with the same results. *Oh, yes:* I also tried a TDR (time domain reflectometer) on all my coax runs. It showed no abnormalities in the cables.

I get no local news, weather, public television, or other U.S. broadcasting. *France24* does do a cursory job of U.S. weather — if you wait long enough for the U.S. to come up. It does the entire planet — so this takes a while.

My television viewing is limited to playing DVDs that I have made off of downloaded files from the Internet — *Al Jazeera*, *France24*, and *CCTV*. I can watch these either on my notebook, or my somewhat-larger television at home.

Short of a several-hundred-foot tower to get me above the trees, I don't see any way to achieve winter quality television when the leaves are out. As the trees grow higher, I suspect that eventually I will be unable to get any usable signals at all from terrestrial transmitters.

As Internet coverage in my area is limited to dial-up, I cannot

(REFERENCE: "Seeing is Believing: A Simple DTV Antenna 480 PSI rated at 23 degrees")

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10 POP'COMM FEBRUARY 2013

Photo F.

download video at home. I resort to driving to a cyber café, buying a coffee, and download what I can during my hour of Internet time. I *could* get satellite Internet or WWLAN here, but that gets me into the \$200+ per-month expenditure range again. Sprint wants \$80+ per month for 1 gig of download on WWLAN. Yeah, *right!* Right now I get more than that for the price of a cup of coffee — \$2.02.

I have had numerous people attempt to sell me "bundled" services — such as "free" long distance service, and so on. I signed up for a Skype account some time ago. For \$48, I get unlimited long distance phone service with my PC, within the U.S. from the cyber café — so their offer of free long distance has no value to me.

Likewise, claims of "400 television channels" are without value. What you get with that in my experience is four or five news feeds, 10 shopping channels, 20 movie channels, and 300 preachers. To see a motion picture, I can get used movies at the DVD store for \$3 to \$5.

If I want to order a specific movie, Amazon or other vendors sell new ones for \$4 to \$10, and I don't have to wait for them to come up on the movie channels or worry about recording it to watch later. Shopping I can do better on the Internet. The preachers you can keep.

I suppose that I'm going to have to put in an 8- to 12-foot dish with split C/Ku band feeds and see what I can turn up on the various satellites in FTA — free to air — service. At least the trees might not be as much of a problem.

— (Signed only) Rabbit

Rabbit: I think many of us can feel the pain you're in with OTA DTV. It's just not fair. Pop'Comm contributor Philip Karras, KE3FL, has written extensively on the trouble he has gone through to pick up Washington, D.C.-area "cutting-the-cord" TV. If misery likes company, you might want to refer to a couple of pieces he wrote two years ago at about this time. ("To a Neighbor's Rescue: Now She Can See Her DTV," August 2011, page 12; and "A Made-For-DTV Mystery (Continued)," September 2011, page 21.) He gave readers, as well, an innovative reception solution with "An Omni-Directional DTV Antenna — With Gain!" in the February 2013 Pop'Comm, page 10, Photo F. Please don't be discouraged. Pop'Comm has lots of brilliant readers who may have ideas for making your DTV viewing more plentiful and enjoyable. Hang in there, and thanks for sharing your challenges.— KPC6PC

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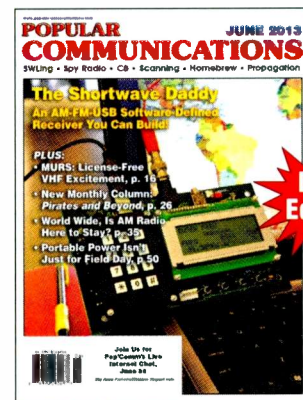
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As Is Always the Case, 'I Need More Stuff!'

By Bill Price, N3AVY

"I'm just not sure what it is until some catalog or ad shows me what I wish I had."

September. Back to school. As a dinosaur, I remember shopping for back-to-school supplies long before schools distributed a mandatory list of what a child should bring on his or her first day.

My book bag held nothing but a few pencils, erasers, and the little twist-and-break-the-point pencil sharpeners. I don't think I bothered carrying it after that day. It was dorky-looking anyway. This was when backpacks were for hikers.

Hobbies are more fun to shop for. You don't need a special "back-to-school" event to want stuff. Catalogs are as much fun as a good magazine when they show things you really want, and every new issue of a magazine treats us to ads featuring the latest goodies we can't live without. There is even one website or seller of hobby goodies called something like "I need more stuff." Well, I *do* need more stuff. I'm just not sure what it is until some catalog or ad shows me what I wish I had.

Things are getting back to normal here in Cowfield County. Mrs. N3AVY's new titanium hips are working just fine, and I'm a little jealous of them. My original equipment is not so hot. I may look into some new joints myself. My original equipment lungs seem to be working OK (with a little help from the "mother ship" that concentrates oxygen for me, and the cute little travel tanks I carry when I stray beyond the reach of my hose). I tried using helium to make me weigh less, but it messes up my voice.

If you've never experienced sleeping with a surplus gas mask over your face, I don't recommend it. Do you suppose I'll have to wear this stuff in the hereafter? I'm sure that the fighter pilots who wear a combination oxygen mask-microphone have something a little more comfortable, but then again, they're not trying to go to sleep. *I hope.*

Soon it'll be time to begin teaching some local scouts some Morse code. As a dues-paying dinosaur, I really like the code, and think everyone else should as well. I have to start out by teaching that knowing the code makes a person one of an elite group. Easier to learn than a foreign language and fun to mess around with,

whether by radio, flashing light, or electric bicycle horns.

Some will earn merit badges or their Cub Scout equivalent, and every so often, one kid will really pick up on it and take it to the next level — maybe with radio. That's what I'm hoping for. Maybe I should write a special version of this column with dots and dashes, just to see who really wants to hang on my every word. . - . -, - . . - (period). Way too hard to use punctuation.

My friends Norm and "Jeff the Cop" (retired) put on a Novice license class once in Jeff's home territory, and I had the privilege of helping teach it. I was the "Vanna White" of their show, turning letters, pointing to examples on the blackboard, and holding up exciting things like radios and electrical components.

It was fun and worthwhile, even if we didn't give away a new car. We created some new hams with that intense three-day class — it would be great to know if any of you Suffolk County readers were in attendance back then.

My smart phone has an application (OK, an "app") which announces callers with a Morse code version of their name — unless they're a bill collector who blocks that information. Every so often, someone will hear it and show that he knows what was said. That happened the other day in the checkout line in MegaMart. It's a fun way to meet hams without wearing an antenna on your hat.

Good friend David G. in Massachusetts has gotten a new toy at work. Because he must connect and solder hair-sized wires in his daily work at his HPJIE,* the eyestrain makes his daily chores difficult. He got himself a gadget — I know he told me the name, but I forgot it — whose camera acts like a moderate-power microscope and displays his work on a video monitor on his desk. 'Twas not so long ago (in dinosaur years) that such a system would weigh quite a few pounds and cost quite a few bucks, but I think he told me it was in the \$100 range. I still can't figure how my shirt-pocket smartphone can possibly be real. *Eat your heart out, Dick Tracy.*

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- Receiver is programmable and manageable through a USB computer interface
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- Optional interface unit enables remote control via the internet
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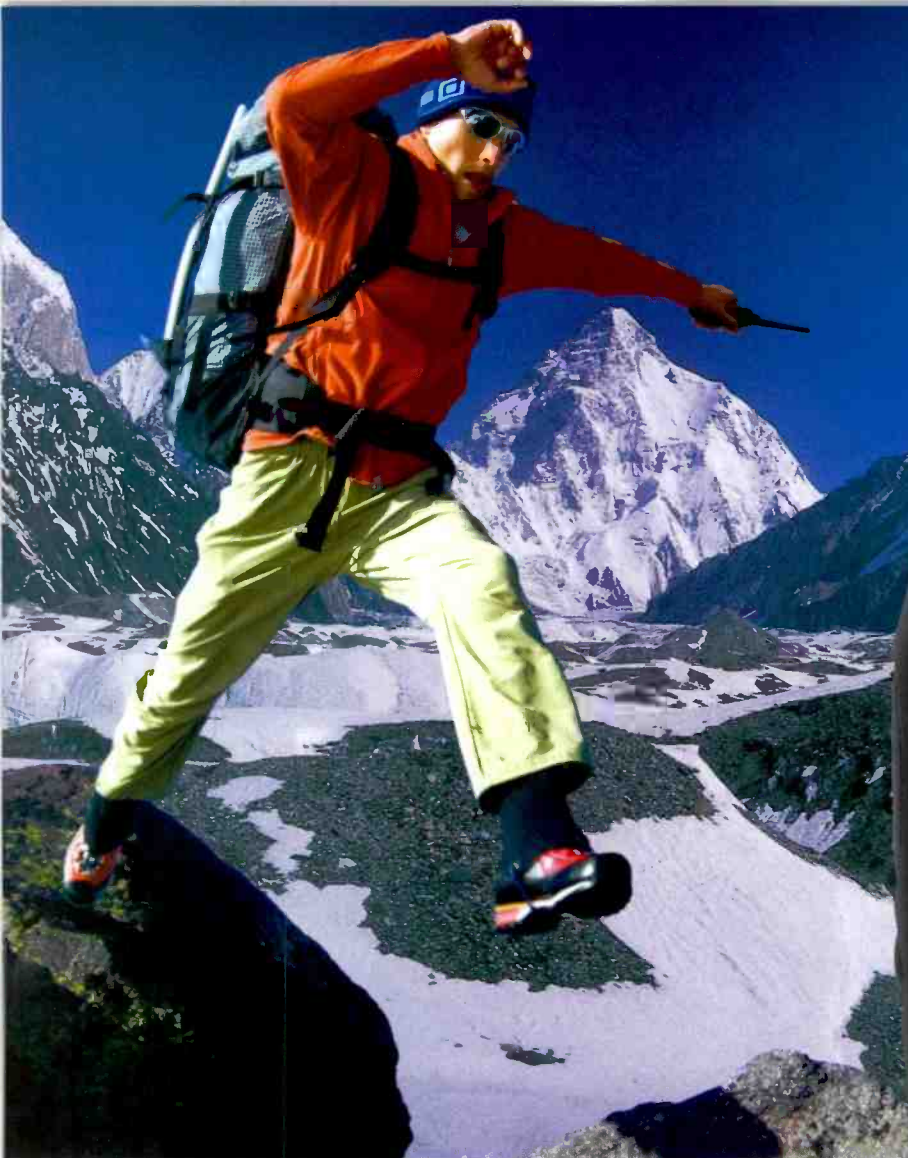


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