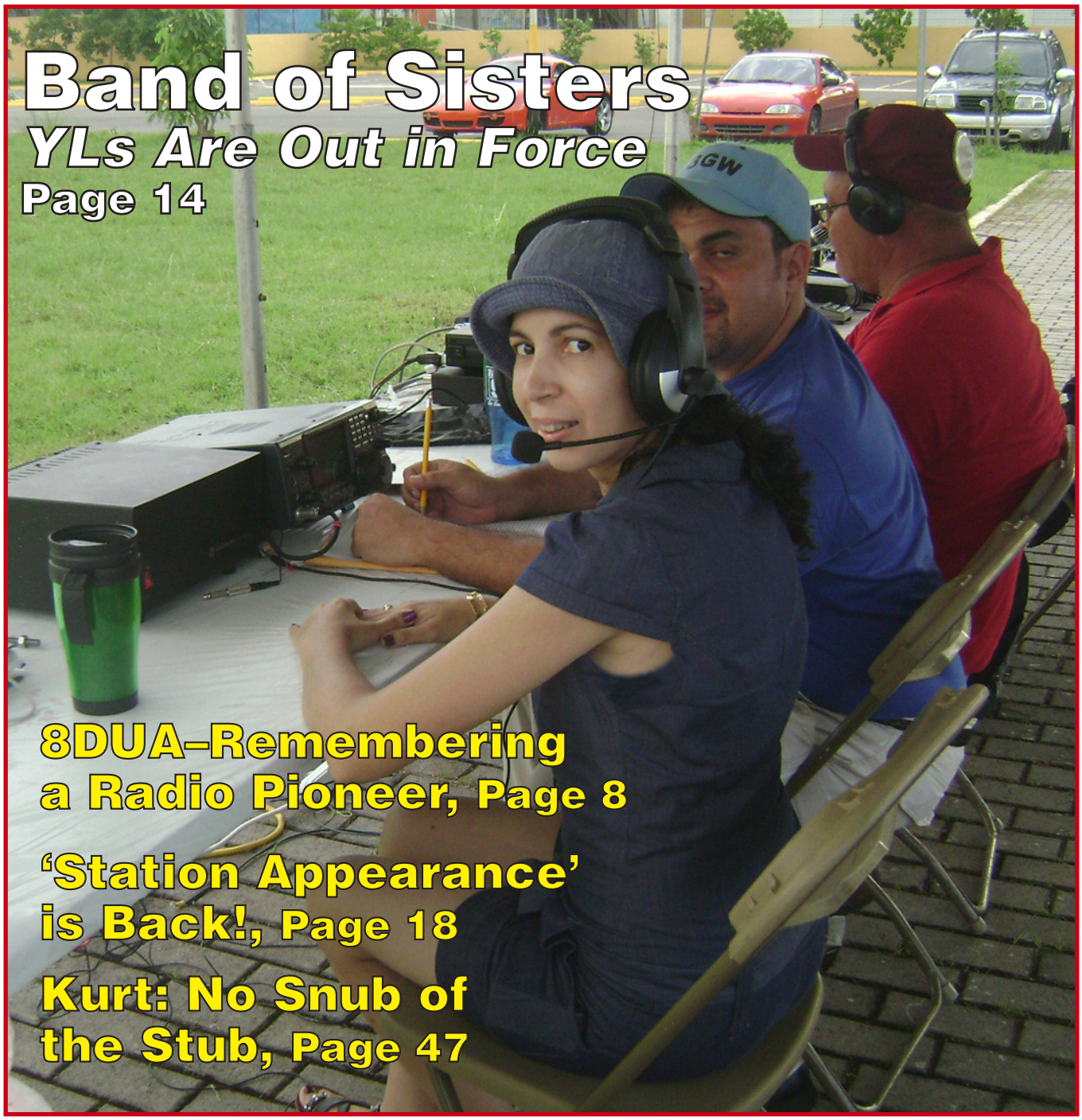
WorldRadio ONLINE

Year 40, Issue 3 SEPTEMBER 2010



Band of Sisters
YLs Are Out in Force
Page 14

NEWS • FCC • DX • QCWA • CONTESTS • HAMFESTS • YL • AERIALS • CW

FCC's Indecency Ban Thrown Out on Appeal

Ruling the policy "unconstitutionally vague," a federal appeals court in July struck down the government's prohibition against indecency on broadcast television and radio, saying it creates a "chilling effect" that violates the First Amendment protection of free speech.

According to the Los Angeles Times, the July ruling by a three-judge panel of the U.S. Second Circuit Court of Appeals in New York "is a major victory for the broadcast TV networks, which jointly sued the Federal Communications Commission in 2006 in the wake of a tougher crackdown on indecency over the airwaves. The suit stemmed from an FCC ruling in March 2006 that unscripted expletives uttered impromptu on live broadcasts violated indecency rules and were subject to fines."

"I am shocked by such an anti-family decision coming out of the Second Circuit Court of Appeals," said FCC Commissioner Michael J. Copps. "Sadly, the court focused its energies on the purported chilling effect our indecency policy has on broadcasters of indecent programming, and no time focusing on the chilling effect today's decision will have on the ability of American parents to safeguard the interests of their children . . . I call on this Commission to move forward immediately to clarify and strengthen its indecency framework to ensure that American parents can protect their children from the indecent and violent images that bombard us more and more each day."

India Amateur Satellite Set for Launch

An amateur radio satellite being built by students at S-R-M University in India is scheduled for launch this month by the Indian Space Research Organization.

According to Amateur Radio Newsline, an S-R-M University press release describes the new satellite - called S-R-M-SAT - as "a 15-watt satellite weighing between 10 and 15 kg and measuring one meter."

"S-R-M-SAT may use the bands 145.8MHz for the uplink and 434.5MHz for the downlink," the report said. "It will launch along with the primary payload known as load Cartosat and two other amateur radio satellites called STUDSAT and TISat-1." *(ARN, NDTV-India)*

Delaware Exempts Hams from Mobile Communications Law

In a unanimous vote, the Delaware State Legislature has passed an amendment exempting amateur radio communications from a house bill that outlaws mobile use of "two-way communication" devices.

"State Representatives Ruth Briggs King and Dave Wilson recognized the deficiencies in the wording and introduced an amendment to correct them," a report carried on Amateur Radio Newsline said. "It then became the work of the Delaware ham community to assure its passage.

"According to a public posting by Dennis Karol, KB3MJ, on the QRZed.com website, some 15 Delaware amateurs not only wrote, called and emailed to their state representatives and senators, but actually spent endless hours at Legislative Hall in Dover . . . They spent that time educating legislators about radio communications in general and amateur radio in particular. In the end, the amendment passed with yes votes from 100 percent of the representatives and senators who were present in both Houses." *(ARN, KB3MJ via QRZ.com)*

First 10-Meter Beacon On the Air in Poland

The first-ever 10-meter beacon is in operation in Poland, according to Sylwester M. Jarkiewicz, SP2FAP.

Operating on 28.203 MHz, SR4TEN is located in the office of the Polish amateurs' radio journal QTC Magazine in grid square JO94RG.

Its power output is 3-watts and reception reports are welcomed. Write: QTC@post.pl.

Reports have been confirmed from: DF7UH, DJ7KG, DK1IZ, DL8AAM (DE8AAM), DL8WX, F1AAK, F1EXL F4EJW, F5BLN, F8LDX, G3UFI, G7CNF, GI4NKB, M0CCQ, M0DDO, SP2DX, SP2FAV, SP2LNW, SP2DX, SP3AMO, SP4KDX, SQ2BXI, TK1CX and YO2IS. (SP2FAP)

Internet-connected Amateur Operations Under Scrutiny in New Zealand

New Zealand's Ministry of Economic Development (MED) has raised concerns with the New Zealand Amateur Radio Transmitters (NZART) over Internet-connected amateur radio operations – IRLP, D-Star, Echolink, APRS and all similar unattended transmitter supervision – because they do not appear to fit within the nation's amateur radio license conditions.

MED, which acts as the nation's telecommunications regulator, points particularly to use of unattended transmitters and unlicensed digipeaters for APRS. It is concerned, as well, over the possibility of overseas radio amateurs operating a New Zealand-based amateur station without specific MED sanction to do so.

NZART Administration Liaison Officer is Don Wallace, ZL2TLL, is "putting together a paper on this topic and would appreciate input from all interested New Zealand amateurs." *(ARN, ZL2BHF)*

UPDATES: July 2010 WorldRadio Online

CORRECTION: Two Internet addresses were inadvertently omitted from the ***YLs*** column on Page 24 in the July edition of WorldRadio Online magazine.

For information on the **Australian Ladies Amateur Radio Association ALARA Award,** visit: http://www.alara.org.au/contests/.

For full details on all the **YLRL** awards go to: http://www.ylrl.org/ and click the tab for contests and awards.

CORRECTION: In the feature ***Links Across the Yukon: Canadian Amateurs Provide a Special Style of Northern Exposure*** on Page 8, the law enforcement affiliation of the old-time radio character Sergeant Preston was incorrect. He was a member of the North-West Mounted Police which was later to become the Royal Canadian Mounted Police.

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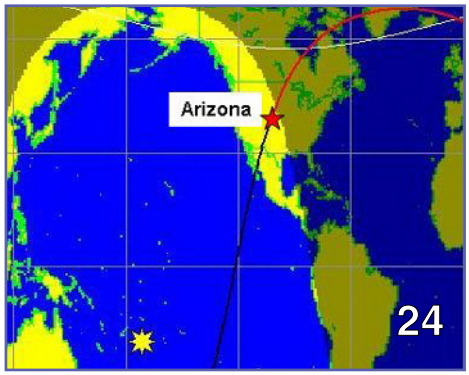
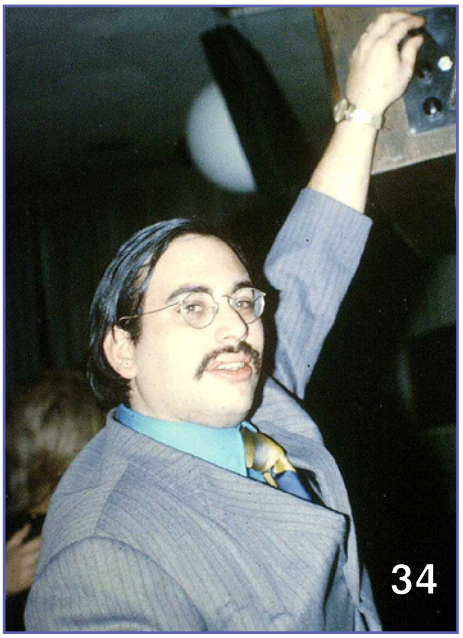


DEPARTMENTS



ON THE COVER: At the 2010 Field Day site of KP4FD in Cataño, Puerto Rico, Vilmarie Rivera, NP3YL, the only YL on the team, gets experience on HF phone. Seated beside her is Angel Santana, WP3GW, along with Angel Rodriguez, KP4BC.
(Courtesy of WP3GW)

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The Icom IC-718 covers 160-10 meters. This radio is very easy to operate with one touch band switching, direct frequency input via keypad and auto tuning steps (senses the rate at which the tuning knob is turned). The receiver section features IF Shift, Adjustable Noise Blanker, RIT and formerly optional UT-106 DSP Automatic Notch/ Noise Reduction. These big rig features give you the necessary tools to fight interference. You get 99 regular memories and 2 scan edge memories. You can scan memories or scan between two specific frequencies. The transmit section features up to 100 watts of RF output and AF speech compression to increase average audio output. A Morse keyer is built-in. The meter shows output power, ALC and VSWR. The layout and basic operation of this rig is simple, but through a menu system you can adjust many operational parameters such as: peak-hold on the meter, mode lock out, RF/SQL knob behavior, key type, etc. The TS function allows you to vary the tuning increment to your liking. The easy-to-read, large LCD and front firing speaker make this rig ideal for either mobile or base installations. The IC-718 comes with the HM-36 hand mic and DC power cable. The IC-718 requires 12 VDC at 20 amps. 9.7 x 3.8 x 9.5 inches 8 Lbs 6 oz. The IC-718 is a great value, providing reliability and DSP at a 'used rig' price. With **free carry case** for a limited time. *Order #0718* ***Call for special price***

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EDITOR'S LOG

On Attracting More People – Especially Youngsters – to Amateur Radio

One of the most gratifying things about hosting the ***WRO Live Online Chat*** each month is that you never know where the conversation will lead.

On July 11 we had more than 90 people logged-in during the hour-and-a-half session and a single comment by **Mike Herr, WA6ARA,** from Ridgecrest, California, opened a wide-ranging thread focusing on strategies for attracting more people – especially youngsters – to amateur radio.

"We had a great Field Day here," Mike wrote. "Took a group of newly licensed hams to Cottonwood Lakes. They did great! One of my top FD in 45 years . . . I was glad to just get the newbies on the air – and they did. They even built an antenna while there."

"On the subject of getting young people to become hams," **Cory Sickles, WA3UVV,** of Glassboro, New Jersey asked, "what is your club (or you) doing to pull in kids from other organizations? . . . Still need to come up with a way to be more attractive to YLs in that age range. Any suggestions or proven ideas?" He also noted that "we are working with home school groups to get more kids into ham radio . . . ties in nicely with so many subjects. It's a fresh way for 'mom' to teach."

Rick Crockett, WØPC, of O'Fallon, Missouri, noted that his Field Day group "had four Eagle Boy Scouts work our GOTA (Get On The Air station) on PSK-31. They are ready to sign up for a license class."

Gene Bartsch, WI7N, from Banks, Oregon, said attracting people when they're really young is key. "I used to have the local Scout troop at my house for Jamboree On The Air each year, but by the time they're old enough for girls and cars, it's too late. I've given presentations to Cub Scouts, and that seems to work better."

WRO **Propagation columnist Carl Luetzelschwab, K9LA,** wrote from Fort Wayne, Indiana that his wife Vicky, AE9YL, "is starting a club station at the elementary school she teaches at. But it still looks like it will be a struggle competing with sports and other school activities."

Scott Hernandez, KD5PCK, of Mandeville, Louisiana, said he usually donates his "issues of magazines to the local high school when I am done reading them. I try to get them to the school within a month after I receive them – that way they are still pretty current."

Gerry Bell, VE3PYJ, of Pickering, Ontario, Canada found that helpful: "That's a great idea Scott, I have just been wondering what to do with all the magazines I have." Meanwhile, **Nick Nichols, WB5BKL,** wrote from Burnet, Texas that his old radio magazines "go to the local hospital. KD5PCK's idea is better. I try to give the magazines to anyone who will show an interest."

At Field Day, "we have a separate site just for our Boulder Amateur Radio Club, Jr. (juniors, for ages 6 to 18) to operate," wrote **Jack Ciaccia, WMØG,** from Colorado. "Thirty-five kids there with their Elmers and parents. Ran as **KCØWBA** which was the call of their newest Extra Class ham (Logan Garbarini), age 14. We have had a youth club for 19 years now and have graduated over 180 hams. Our BARC, Jrs. have been speakers at the Dayton Youth Forum for 18 years in a row! (They) meet every week for two-hours, 11 month/year."

"OK, here's another thought provoker," wrote **WA3UVV** to further stir the pot. "Should we be teaching kids to enter ham radio as Technicians or Generals, so they have some HF (phone) possibilities right from the start?" We conducted a ***WRO*** **Live Online Chat instant poll:** *"Should we encourage young people to get their General instead of entering as Techs?"* we asked. Of those responding, 77 percent answered *Yes,* while 23 percent said, *No*.

And so it went . . .

There were many more questions, comments and suggestions about attracting newcomers. Good ideas and challenges for us all to consider. To see a full replay of the July 11 chat, visit the ***WorldRadio Online Blog***.

Upcoming WRO Live Online Chats

Please join us for a ***WRO Live Online Chat*** beginning at 8 p.m. Eastern time on selected Sundays: September 12, October 3, November 7 and December 5. To take part, simply visit the ***WorldRadio Online Blog*** at chat time and click on the ***Cover It Live*** box. You'll be launched into the conversation, which – as you can see – can lead just about anywhere. Hope to see you there. ***- Richard Fisher, KI6SN***

WorldRadio Online

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A publication of

CQ Communications, Inc.
25 Newbridge Road
Hicksville, NY 11801-2953 USA

WorldRadio Online, Year 40, Issue 3, published monthly by CQ Communications, Inc., 25 Newbridge Rd., Hicksville, NY 11801. Telephone 516-681-2922. FAX 516-681-2926. Web Site:<http://www.cq-amateur-radio.com> Entire contents copyrighted © 2010 by CQ Communications, Inc. *WorldRadio Online* & CQ Communications,Inc. assume no responsibility for information, actions or products on/from external links/sites.

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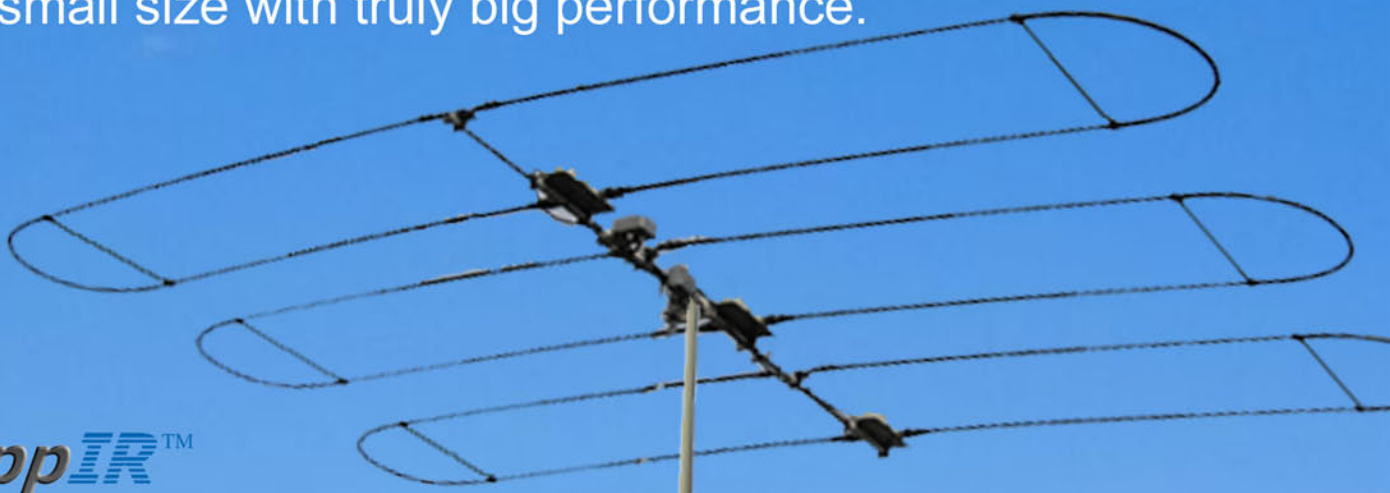

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Picture is an artistic rendition to show scale and portability of antenna.

Sadly, a Vanishing Breed

A Tribute to James A. MacGregor, 8DUA/W8DUA

By Edward A. Chittenden, W3ERN; with James R. MacGregor

James Arthur MacGregor, W8DUA, died three months shy of his 100th birthday – the last chapter in a radio communications love story that spanned from the spark-gap days of the 1920s to Jim's intrigue and savvy in the digital age.

With his death in late 2009, the amateur radio fraternity lost another of a brand of early pioneer who seized technological opportunities, persevered through remarkable challenges and contributed extraordinary advances throughout the 20th century. Sadly, it's a vanishing breed.

A 43-year professional career found Jim as: a shipboard radio operator on a high-seas liner and Great Lakes tugs and freighters at the height of the Great Depression; a designer/ implementer of pioneering, two-way mobile radio systems for city police and public transit entities and an engineer in the developing field of television broadcasting.

Jim finished his professional career as a radio communications specialist in public safety/security and the nation's defense sectors in various postings worldwide with the federal government, notably the U.S. State Department and U.S. Army Strategic Communications Command (USASTRATCOM).

Crystal Sets, a Single-Tube Receiver and a Battery-Powered Rig

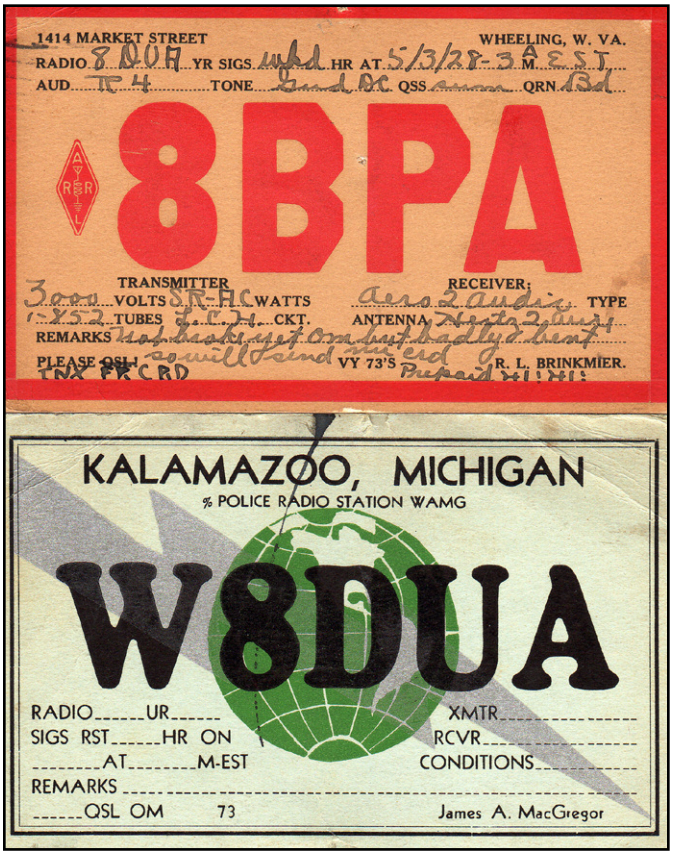
Raised on a small farm in Van Buren County, Michigan, Jim was born in December 1909 and began experimenting with electrical components an uncle had given him – first building crystal sets, which eventually led to the building of his first radio transmitter.

In 1927-28, he built his first, single-tube receiver, followed by a battery-powered transmitter of moderate design, and purchased his straight key – a Western Electric – that he would use his entire life. His father helped him cut and raise three tamarack conifer poles to support a wire antenna array. Through reading and self-study, Jim became a licensed amateur by age 18, with the call sign 8DUA. His call transitioned about six months later to W8DUA (no mid-life "vanity call" election for Jim).

Jim's first confirmed contact as a licensee was with 8BPA in Wheeling, West Virginia, on May 3, 1928. In the absence of AC power on the farm, 8DUA's CW transmitter used a receiver tube (201A) – as a self-excited oscillator – for output, powered by a car battery plus two-series B batteries (90 volts). This could light a 6-volt light bulb if inserted in the antenna circuit.

A two-blade, double-throw switch was used to shift power from transmitter to receiver. In those days, hams who had AC used glass jars with soda and water – perhaps 20 or more jars – to rectify AC to DC voltage to power their transmitters, Jim recalled.

After high school, Jim attended the Dodge Radio Institute, later becoming Valparaiso Technical Institute, in Indiana. In early 1929, he was granted a FRC commercial radiotelegraphy (20 wpm) license, helping launch his professional career. (The



(Top) QSL of 8DUA's first confirmed contact, 8BPA, Wheeling, WV, at 3 a.m. EST on May 3, 1928. Note the remarks - "Not broke yet OM but badly bent so will send ur crd prepaid Hi Hi." (Bottom) W8DUA's own QSL card, c1936-41, with postal address of "c/o Police Radio Station WAMG, Kalamazoo, Michigan," the fixed, two-way, 100-watt radio system at police headquarters that Jim implemented in 1936, in advance of two-way radios he designed/ installed in its cruisers.

Federal Radio Commission was the predecessor of the Federal Communications Commission, or FCC, which was formed in 1934.)

The Hobbyist Takes a Professional Turn

With the encouragement of an uncle, at the age of 19 Jim boarded a train from Chicago to New York City, to seek adventure as a shipboard radio operator. Balancing an avocation, employment, and a relationship with Faith Winters, his high school sweetheart, presented a formidable challenge in the early days of radio, since related jobs were few and far between.

Telegraph operators were basically limited to the shipping industry at the time. After arrival in New York, Jim was hired – on the strength of his skill at receiving code and typing messages simultaneously – by RMCA/RCA, the former province of the Marconi Wireless Telegraphy Co., as a 3rd Radio Operator. He was assigned to the passenger steamship S. S. Minnekahda, the only Atlantic liner then carrying tourist third cabin passengers only.

The Minnekahda departed New York on June 29, 1929 for London with 809 passengers and Jim, with his "first paid radio job – call KDKK," as he'd proudly reminisce.

Because of his increasing interest in Faith Winters, however, Jim soon sought a change in venue to the much closer Great Lakes, following his one roundtrip transatlantic run. In 1930, Jim became a shipboard radio operator for Ford Motor Company, River Rouge, Michigan, on the varied vessels of its Great Lakes shipping fleet.

His first assignment was on the steel-hulled, 426-ton tug "Barrallton," whereon many a rough-weather day was encountered in towing the fleet's barges – converted freighters called "Lakers," ranging from 3,200-5,900-tons – around the Lakes.

The Barrallton's shipboard station of call KIDT employed a quenched, spark-gap transmitter; RF test, load-coil "cans;" a lightning grounding switch; and for the power source a bank of 20, 6-volt batteries in series, an array of switches for power input or battery (series-parallel) charging purposes.

Distress and standby listening (watch) wavelength was 600 meters, just below the broadcast band. Shore and ship stations monitored this "calling" wavelength, and operators then shifted to higher "working" wavelengths.

The Barrallton made use of a *cylindrical,* multi-wire antenna array, suspended between its fore and aft masts, which allowed the relatively short, horizontal antenna to present a greater antenna-to-ground capacitance when resonating on the MF 600-meter wavelength, affording a more effective low-angle, transmitting lobe.

Jim's standard RCA receiver (IP-501) had one tube with external "cat whisker" for use as backup in event of tube failure. A separate cabinet held a two-tube amplifier so that a loudspeaker could be used in lieu of earphones.

Jim would simultaneously copy received messages, weather reports, etc., to a typewriter, and his telegraphy proficiency was honed in the process. He progressed to serving on Ford's ore-carrying freighters on the Great Lakes, such as the "M/S Benson Ford," often making runs between River Rouge and such northerly ports-of-call as Marquette, Michigan, and Duluth, Minnesota, on Lakes Huron, Michigan, and Superior.

Great Lakes icing during the winter-off seasons, coupled with Ford cutbacks in the length of its annual shipping season during the Great Depression, forced Jim to shift to electrical work in Ford's foundry or other plants. After steaming the Big Lakes for three years, the last one as a newlywed, Jim sought a more landsman existence.

Moving to Battle Creek, Michigan, he found jobs scarce during the Great Depression. In 1933 Jim resorted to selling magazines door-to-door for Curtis Publishing Co., while gradually working into a permanent electrician's position with Kellogg Co.

In mid-1934, Jim and Faith moved to nearby Kalamazoo and started to raise a family, that grew to include son James R. and daughters Marilyn – who died in infancy – and Laurie.

Jim noticed that the officers in city police cruisers in Kalamazoo had to regularly stop at telephone call boxes to check in with headquarters. He was soon struck with the idea of a two-way radio system capable of providing efficient, direct communication to/from its patrol cars.

Following many persistent overtures to this effect to then Kalamazoo police commissioner Ralph Chapman, Jim was hired in fall 1934 as an engineer in Chapman's department to design, build, and implement the first two-way radio system for the city's squad-car fleet.

Through Jim's perseverance, the mobile system was completed, tested, and installed in 1937 and widely hailed in major cities across the state as a pioneering model (preceding by two years, incidentally, Galvin's first two-way, "Motorola" mobile radio).

During his early years in the emerging field of wireless mobile communications, Jim adopted an unusual amateur radio QSL address of "c/o Police Radio Station WAMG, Kalamazoo, Michigan," the new radio dispatching/receiving station at headquarters he implemented in 1936, paving the way for installation of two-way radios in the cruisers.

Jim's ensuing 13 years produced follow-on Kalamazoo police radio system conversions from AM to FM, HF to VHF, and he also built two-way mobile radio systems for the Kalamazoo Township Fire Dept., as well as the local Greyhound bus line and a local taxi company.

Jim MacGregor, age 19, summer 1929, in dress uniform as a newly hired 3rd Radio Operator assigned to the transatlantic passenger liner S. S. Minnekahda.

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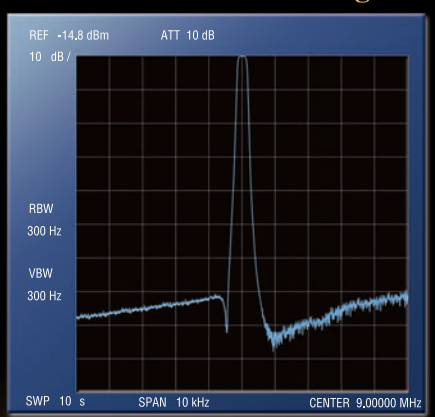
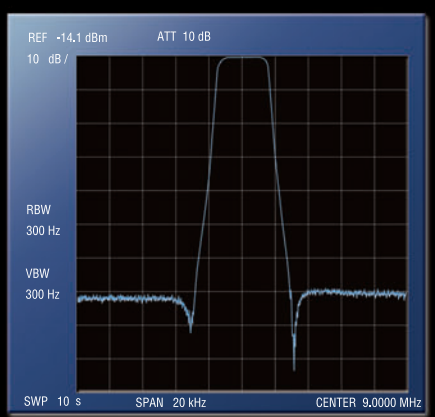


300Hz



3kHz

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HF/50 MHz 200 W Transceiver
FT DX 5000D

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- 600 Hz Roofing Filter included
- 3 kHz Roofing Filter included

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FT DX 5000

- Station Monitor SM-5000 optional
- ±0.5ppm TCXO included
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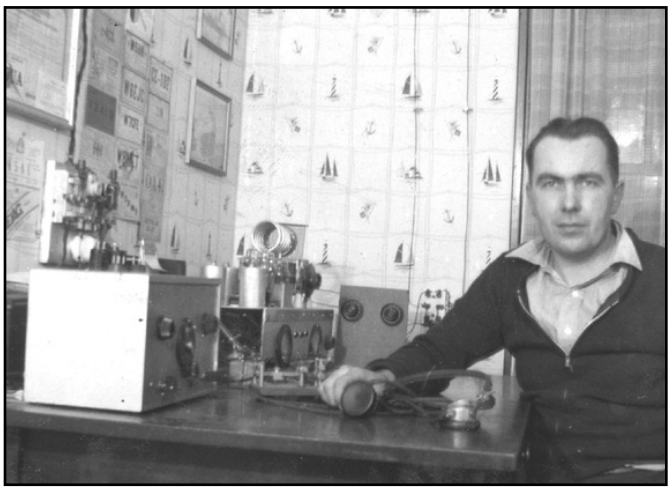
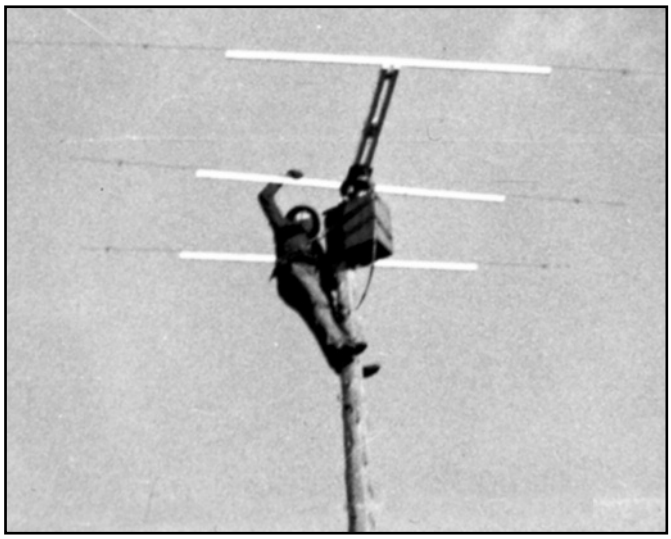
Meanwhile, Jim's CW ham shack continued to bustle with lots of foreign and domestic QSOs/QSLs. On December 6, 1941, Jim completed building his first AM ham transmitter, intending to try for his first AM QSO on December 7. As Jim mused in 2008, "I turned on power on December 7th and that evening heard ARRL broadcasting 'Get off the Air' to all hams." Forced to store his new rig in his father's barn until the war's end, Jim's dreams of AM QSOs were dashed in those few, agonizing years.

The post-war year 1946 ushered in Jim's first serious ham antenna installation, a classic "33" beam and homebrew rotator atop a 50-ft pole in his backyard. Accompanying photographs capture both this antenna/rotator and his post-war CW/AM ham station, respectively.



Jim MacGregor, W8DUA, in this 1939-dated photo is seated at his amateur radio station consisting of a homebrew, superheterodyne receiver and breadboard transmitter which had an 807 output tube. A vertical two-inch "downspout" Zepp on the roof of his two-story home on Hayes Park St., Kalamazoo, ably served as the station's antenna.



Jim MacGregor, W8DUA, in this c1947-dated photo is shown servicing a classic "33" beam and homebrew rotator atop a 50-ft, utility-like pole in his home's backyard on Fletcher Ave., Kalamazoo. Jim made use of a washing machine motor in the approximately 40-lbs. homebrew rotator, encasing it in metal. Installing the rotator atop the pole - and then further mounting the beam antenna above it - was a nightmarish challenge.

Jim became very adept at scaling heights and towers in the 1940s – with the provision and use of proper safety equipment – to install *commercial* antennas. Some notable examples were atop a city water tower and – for the city police and a taxi-cab company – atop the then highest, 15-story structure in downtown Kalamazoo, the American National Bank Building.

Meanwhile, regional television broadcasting was dawning and, in June of 1948, W8DUA hosted members of the Kalamazoo Radio Technicians Association at his home in the first recognized, successful demonstration of TV reception in the city of Kalamazoo, aided by his specially-tuned, homebrew antenna mounted in his backyard, on a 50-ft pole. The group viewed a snowy-quality wrestling match transmitted from Chicago.

In 1950, with an FCC first-class radiotelephone license among his credentials, Jim and family moved to Grand Rapids, where he spent five years as a radio/TV engineer for commercial station WOOD TV/AM. There he helped launch and install its new, developing TV studios and transmitter site.

Jim subsequently joined the federal government in 1955 as a communications specialist with the Federal Civil Defense Administration/Office of Civil and Defense Mobilization (FCDA/OCDM) national headquarters in the former Percy Jones Hospital, in Battle Creek. He remained there for five years in a prime role of reviewing and assessing acceptability of applications from states and cities vying for matching-funds procurement of civil defense communications equipment, while also developing his skills for aspiring advancements at the national level to follow.

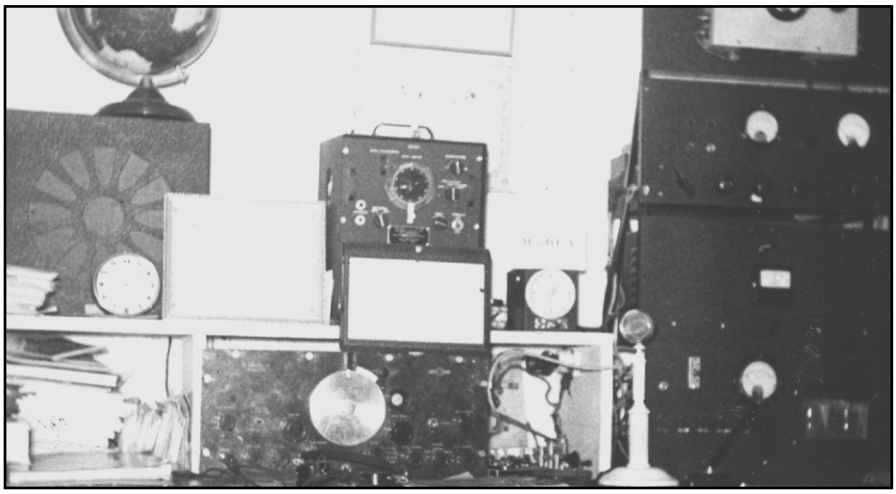
From Washington, DC to Foreign Lands of Intrigue

Jim's professional career took yet another important turn in 1960 upon joining the U.S. State Department's Agency for International Development (AID), Washington, DC, as a communications advisor posted to the Chief of Internal Security, Ankara, Turkey. He remained there for two years which encompassed separate, 30-day detachments to Madagascar and Mozambique to review their respective public safety/security/emergency communications needs and to recommend the best AID response.

He was then posted in a similar capacity in Jakarta, Indonesia, from 1962-64. In early 1963, Jim was temporarily detached to the island of Bali to facilitate the delivery of battery-powered transceivers and help coordinate emergency communications in support of rescue operations in response to Gunung Agung's major, deadly volcano eruption.

Amid mounting Indonesian political unrest during Jim's tour, Faith, who had accompanied Jim throughout his foreign postings, returned stateside three months early; and within months following Jim's return, President Sukarno's regime was in a downward spiral.

In 1964, Jim's next AID assignment was scheduled to be in Bolivia for two years. However, after making necessary preparations, including passing high-altitude breathing tests and acquiring cold-weather clothing, Bolivia's incumbent government was overthrown. So, Jim was assigned instead to a desk in the U.S. State Department, Washington, DC, as an RF communications specialist and equipment expeditor to South Vietnam.



W8DUA's CW/AM home station at Fletcher Ave., Kalamazoo, 1946-50: a Hallicrafters "Ultra Skyrider," SX-10 receiver (lower center); a U.S. Army BC-221 frequency meter, used as a VFO (atop receiver); and a stacked, homebrew CW/AM transmitter - his first AM one (at right).

In that same year of 1964, on his seldom-neglected ham front, Jim was granted his Amateur Extra-Class license. After two years of dedicated, extended-hour work days in Washington - encompassing separate, 30-day detachments to the Philippines and Jordan for the conduct of public safety/security communication surveys - Jim wanted to return to his native Michigan.

He was a regional communications specialist from 1966-73 in his last position of an illustrious 43-plus year professional career, evaluating RF communications capabilities at the highest security levels such as its HF and VHF vulnerabilities to potential nuclear and other threat effects, with the U.S. Army Strategic Communications Command (USASTRATCOM), Federal Center, Battle Creek, MI.

Interests as a Ham and Computer Wiz

Jim was an active and loyal member of the amateur radio fraternity, with his ARRL membership enduring over 70 years (1937-2007). He was exclusively a CW man until 1946, when he added AM operation.

At 91, a relaxed Jim MacGregor, W8DUA, in August 2001, seated in his home in Kalamazoo, at his TS-450 SSB/CW- and HT-44 Thunderbolt linear amplifier equipped station as it had been configured from 1982 to January 2008, when Jim elected to cease hamming - after 80 years - and focus more on his home computer operations.

In 1966, he converted to SSB, selectively running a kilowatt amplifier, and using a three-band Yagi antenna atop a new steel, self-standing 50-ft tower, allowing a much improved placement of his vintage homebrew rotator - then at the tower's base - with a light-pipe, mast-extension to the antenna.

In the 1940s-'50s, Jim was, in his own words, "a serious contest participant." But he loved most all aspects of hamming over his many years: rig building/experimenting, fixed and mobile; "rag chewing," often using his trusty "bug" acquired in 1930; creating/keeping schedules with foreign, domestic, and local friends alike; and chasing DX, be it CW using his straight key ("bug" in competitions when suitable) or voice.

Jim enjoyed learning about foreign countries, their peoples, and languages through DXing, with just three examples of such schedules being a Catholic missionary in China during the 1940s, later a Nepalese station, still later a VK6 engaged in police work as Jim had been.

And with 291 countries on the DX list confirmed (over 300 worked) by 1990, including VR6TC on Pitcairn Island and such gems as VS5MC in Brunei, JT1AA in Ulan Bator, YA2HWI in Kabul, 3B8DL on Mauritius, EP3AM in Tehran, and the Comoros, there were not many that escaped him, however rare.

He was also an inspiring mentor of many aspirants and newcomers alike to the amateur fraternity, as he gratefully was in 1956-57 to his longtime friend, this article's contributor.

Among Jim's ham awards are: ARRL Code Proficiency of 35 wpm, August 30, 1940; WAS, c1947; WAC, 1947; DXCC No. 3583, May 5, 1958; and the CQ Worked All Zones (WAZ), No. 2947, July 11, 1970.

Beyond his communications prowess, Jim was an accomplished stringed-instrument musician throughout his life, playing at events in duets with Faith and in bands and orchestras.

As the computer and digital information age dawned, Jim heartily embraced the advancing technology, and his later hobbyist years were shared between ham radio and operating his home computer until giving way solely to the latter in January of 2008, when he elected to transition his shack equipment to "off-air" status for the last time and to sale by an agent-friend, K1ND, so his computer operation would transcend under more favorable "propagation" conditions.

Operating 2010 ARRL Field Day in Another State

By Cheryl Muhr, NØWBV

Field Day is what I liken to a national version of a school fire drill. You know, the ones you had to practice every year in school? It is the *what if* of ham radio.

So *what if* you have been participating in Field Day for more than 20 years. And *what if* you have an event conflict? What have you drilled for all that time?

The answer is simple: Find another way/place to participate in Field Day and get it in no matter what.

Personally, I have done Field day for longer than I have been licensed, so missing it is not an option. I started off logging for others, but when I got my license I got to do Field Day on the air!

In doing so, I have been lucky enough to operate everything from 2 meters to 80 meters; GOTA stations to digital to voice. I have had the pleasure of working from numerous cities in Colorado as well as from the states of Arizona and California. Which brings me to Field Day 2010 . . . the long way.

Vilmarie Rivera, NP3YL, was the only YL making contacts at the KP4FD Field Day site in Cataño, Puerto Rico. Seated beside her is Angel Santana, WP3GW, along with Angel Rodriguez, KP4BC.

Sara Slygh, KA6QLT, and Muriel Parker, KA6BJP, at the South Orange Amateur Radio Association Field Day site in Costa Mesa, California.

Kellie Berry, who passed her licensing exam at 2010 SOARA Field Day, with her father, Ben Berry, KJ6EZN, and dog Charlie.

Patti Peschel, AD6OH, logs for Colorado visitor John Muhr, KTØF, during 2010 ARRL Field Day.

In 1999 somehow a trip to California to visit with close friends managed to coincide with Field Day weekend. I still don't know exactly how *that* happened.

Rather than cancel the trip or miss and break our Field Day continuity, the OM John, KTØF, and I found a perfect solution. We contacted a number of California Club sites and hit upon the South Orange Amateur Radio Association (SOARA). They generously invited us to come operate Field Day with them in 1999.

When Field Day 2010 rolled around and a conflict event was taking place at the Orange County Fairgrounds, we thought we had a viable solution. Contacting SOARA ahead of time, we found that they would be in the same spot as in 1999.

The park was just as we remembered it with antennas set up in Gillerman Park, Costa Mesa, California – a *wonderful* place to operate! There was not just one antenna or two, but many arrays including Hexbeams, verticals with top hats, beams and more.

There I met Muriel Parker, KA6BJP, and her OM Lou Parker, KA6BJO, who filled me in on how SOARA started about 34 years ago. They mentioned that the club used to operate Field Day up in the hills of Laguna Beach before moving to its present site at the park.

I found quite a few of the SOARA YLs active at Field Day with their families and friends and all with interesting stories. In some cases it was the perfect call sign such as Sara Slygh's KA6QLT, which is so fitting for a quilter.

When I found Patti Peschel, AD6OH, logging or her OM Heiko Peschel, AD6OI, I had to laugh, as that is exactly how I had started Field Day myself those many years ago. Unlike me, however, Patti's license means she can take her own turn on the air while I had to wait a few years for that privilege during the annual event.

Heiko was one of the operators who understands about not missing operating Field Day and generously allowed us to take

a turn while we were visiting. Patti even kept logging, as well.

Patti and Heiko are perfect examples of why amateur radio is so much fun! You meet so many great people.

Marie Reid-Zitzmann, KD7JHS, was making sure all the visitors signed in and I just had to ask about the 7 in her call sign.

It turns out she was living in Germany when she and her OM Horst Zitzmann, KD7JHR, got interested in getting licensed. They decided to get their U.S. licenses, as they would be heading back to the states. Another reason was that German call signs need to be renewed (monetarily) every year. U.S. call signs are renewed every 10 years.

They took their tests at a local U.S. military base and that led to 7 area call signs – which happened to be consecutive – thanks to a Las Vegas, Nevada mailing address.

Also at Field Day was Kellie Berry. Her father Ben Berry, KJ6EZN, brought her by proudly on Sunday to let everyone know that though she didn't have her call sign yet, Kellie had passed the Field Day licensing event held Saturday.

Way to go Kellie! I can't wait to meet you on the air, as well.

Field Day is always a great event and it is made even more special when you can meet new friends and reminisce with old ones while doing Field Day in another state.

So far the record still holds. I've been doing Field Day every year since before I was licensed.

See you on the air!

Marie Reid-Zitzmann, KD7JHS, handled visitor sign-in duties at the SOARA Field Day site.

Field Day is Great for First HF Contacts

Angel Santana, WP3GW, has a great story about his friend's sister, Vilmarie Rivera, NP3YL. She had done a couple of contacts including one with the ISS, but had never made an HF QSO.

This was a great opportunity to have her experience 10 meters. With brother, Jose Rivera, KP4JRS, and father, Jose Rivera Sr., KP4JFR, she seems to have chosen the family specialty of RTTY.

After watching her father, and with Angel's coaching and logging, she was on the air for Field Day. She was the only YL making contacts this year at the KP4FD site in Cataño, Puerto Rico.

You can even check out the quick 16-second video of her on voice that she finally agreed to post on YouTube: http://www.youtube.com/watch?v=Yv33b1dMTQk.

Way to go Vilmarie! I hope to meet you on the air.

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'Station Appearance' Returns: W4YFJ, Essex Junction, Vermont

*(Editor's note – Many readers requested it. So here we are: This month marks the return of **Station Appearance,** for many years a fixture in the print version of **WorldRadio** magazine. With each edition we'll be highlighting the shack of a **WRO** reader. Are you proud of your station's appearance? Or do you proudly "bless this mess?" Send digital photographs of your station with details to: **WorldRadioOnline@gmail.com** and we'll consider them for publication in **Station Appearance** in an upcoming edition of **WRO**. If there's a You Tube video to accompany the still pictures, let us know and we'll set up a link. Many thanks to **W4YFJ** for kicking things off.)*

Left and center console at W4YFJ.

It's clear that neatness, utility, organization and versatility are priorities in the radio shack of Bob Brown, W4YFJ, of Essex Junction, Vermont. With a mixture of contemporary and vintage gear, he's assembled an impressive station that is as efficient as it is eye-pleasing.

His multi-tiered consoles are attached and on four-inch casters, "so we can move it out from the wall."

Left Console

"On the left side on the bottom row are some weather monitors as well as a speaker and monitor scope for RTTY," Brown writes. "The next row includes a remote antenna switch, VHF radio and an SWR meter. On the next level up are power distribution switches for 110 volts, 28 volts (used for the indicator lights) and 14-volt power for some of the equipment."

Center Console

Moving to the center console, Brown has "a Kenwood 940S and Ameritron 811H amplifier. Above them are switches for serial ports for the transceivers. In

Right and center console at W4YFJ. ***(Courtesy of W4YFJ)***

the center of the console is a computer display for the digital modes as well as logging.

"On the right side of the center console (from bottom) is a keyer, Yaesu FT-840 – which I use for most of the digital work – and above that is a homebrew switch for the digital inputs from a sound card as well as the AEA PK-232 MBX which I use for RTTY and Pactor (Airmail).

"The next item going up is an antenna tuner for the FT-840 and above that is a homebrew switch I use to switch the PK 232 MBX and various keys from rig to rig. The top item on that side is another homebrew switch to shift 12-volt power from a power supply to a battery."

The center console contains two keyboards – "one for regular PC use and one right under the display which is used for contest logging."

Right Console

"On the right side of the console on the bottom row are a Yaesu FL-101 and FR-101 pair which I use occasionally. The next row up are a Collins R-388 and an old S20-R Hallicrafters receiver – like the one I used as a Novice back in 1954."

Return of an Old Friend?

Brown says there's an interesting story behind the S20-R. "I had one as a Novice back in 1954 and used it on 40-meter CW. Had two crystals: 7189 and 7195 kHz. At the time Radio Moscow was on 7190, so I could only work the farmers out west early in the morning.

"The most interesting thing about this receiver is it was in perfect condition – no scratches, no rust, no dust. The only thing wrong was it had white paint on the AC line cord as if someone painted a room and did not move the radio when they painted.

"In the '60s, I lent it to a friend of mine to learn the code. Never got it back. When I was 65 or so, I wanted to get an S20-R for my shack but couldn't find one at a hamfest. So I put out a query out on the Internet and someone from California responded and said he had 15 of them. 'Send me $100 and I will send you my best one.' It came in the mail a few days later and it was perfect – no scratches, no rust, no dust – and it worked! The only thing wrong was that it had *white paint on the AC line cord.*

"I surely wish that I had kept track of that serial number."

Dollars and $ense: Thoughts on QSL Bureaus and DX Managers

By Kelly Jones, NØVD

As the sunspots slowly start to reappear and the HF bands begin to show a few glimmers of life, you might find yourself thinking about DX awards. Or perhaps you have already started chasing DX awards. Or maybe you have decided not to pursue any DX awards because of the cost associated with it.

With postage rates rising what seems like every year, it could get quite expensive to QSL for every QSO needed for each award. Take something like the DXCC for example. To get a basic Mixed Mode DXCC award you need at least 100 DX confirmations. If you live in the United States, assume 98 cents per card just to get your QSL to the recipient. Then factor in the common practice of including return postage to get your card sent back to you. It's not uncommon that return postage from a foreign land is now $2 USD. In some cases, it's even $3 USD. So as an average, assume $98 for initial postage and another $200 to get your card back. This, of course, assumes you get a 100 percent return rate. As you can see, chasing QSL cards can be an expensive proposition.

Enter the QSL bureaus. A QSL bureau is an organization often run by a DX or contest club. For example, the Ø district bureau is operated by the Mississippi Valley DX & Contest Club in St. Louis, Missouri. Many of the bureaus are operated and funded by volunteers. In addition to the 10 incoming QSL bureaus in the U.S., many countries outside the U.S. have bureaus as well.

Now back to chasing your DXCC award. Let's assume you have worked five different DLs, three EAs, four Fs and three PYs. Instead of sending a direct QSL request to each of these stations, you could package up four envelopes with all of the DL contacts in one envelope, all of the EAs in another, and so on. Now instead of sending one envelope for each

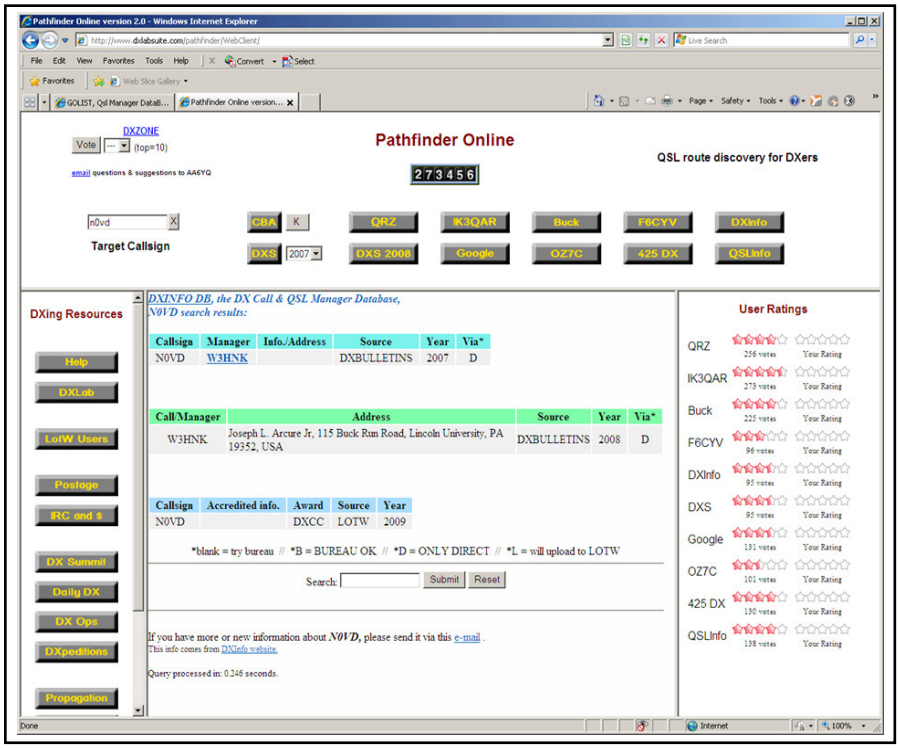

Figure 1.

QSO, you just have to cover the postage to get four envelopes to their destination – the foreign QSL bureau. As you can see, there is a terrific savings in using the DX station's incoming QSL bureau.

But wait *(as they say on TV)*, there's more! Wouldn't it be great if you could put all of your cards in a single package and send them to just one place? Well, if you are an ARRL member, you're in luck. One of the benefits of being an ARRL member is that you have access to what is known as the Outgoing bureau service. This service allows you to send all of your cards to the ARRL and they in turn distribute the cards to the overseas QSL bureaus.

While the Outgoing QSL service isn't completely free, it is very reasonably priced. For example, if you are just beginning your journey into the world of award chasing or QSL collecting, you can send 10 or fewer cards for just $1.50. Considering a single card would have cost 98 cents just for the initial postage, this is quite a bargain. If you have many cards to send, prices are still quite reasonable at $5 per each 1/2 pound. On average there are around 75 cards per 1/2 pound, so you can see that obtaining QSL cards through the bureau can be quite economical.

While many DXCC countries have incoming bureaus, there are a handful of DXCC entities to which cards cannot be forwarded. Table 1 shows a list of these entities.

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CN	Morocco	T2	Tuvalu	3C0	Pagalu Island
D2	Angola	T3	Kiribati	3C	Equatorial Guinea
E3	Eritrea	T5	Somalia	3DA0	Swaziland
J5	Guinea-Bissau	T8	Palau	3W, XV	Vietnam
J8	St. Vincent	TJ	Cameroon	3X	Guinea
KG4	Guantanamo Bay	TL	Central African Rep	5A	Libya
KH0	Mariana Is.	TN	Congo	5R	Madagascar
KH1	Baker & Howland Is.	TT	Chad	5T	Mauritania
KH4	Midway Island	TY	Benin	5U	Niger
KH5	Palmyra & Jarvis Is.	UK	Uzbekistan	5V	Togo
KH7K	Kure Island	V3	Belize	7O	Yemen
KH9	Wake Island	VP2E	Anguilla	7P	Lesotho
KP1	Navassa Island	VP2M	Montserrat	7Q	Malawi
KP5	Desecheo Island	XU	Kampuchea	8Q	Maldives
P2	Papua New Guinea	XW	Laos	9N	Nepal
P5	North Korea	XZ, 1Z	Myanmar (Burma)	9U	Burundi
PZ	Suriname	YA, T6	Afghanistan	9X	Rwanda

Table 1.

year's K4M DXpedition Midway and the chart indicates they have no bureau, what should I do?" Enter the QSL manager.

Occasionally you may find that a DX station will use a QSL manager. A QSL manager is simply a person or club who handles QSL duties for a DX station. In the case above, K4M's QSL manager is a group of volunteers responsible for the QSLing duties. This means you would need to send your card directly to the address listed on their website or on QRZ.com.

As you venture into chasing QSL cards, you will come across many cases where the DX station uses a QSL manager. There are many reasons why a station may not handle the QSL chores. A few reasons could include mail theft, time constraints or no QSL bureau. There are many sources available to finding QSL manager information. QRZ.com, The GOList (www.golist.net) (Figure 1), Pathfinder (www.dxlabsuite.com/pathfinder/WebClient/) and K4UTE's lookup at http://www.nfdxa.com/K4UTE/K4UTE.HTML will certainly get you started.

Now that you have the QSL manager for that prized DX contact, what do you do next? If you're like me, you will want to get your card back quickly. While it's perfectly fine to send your request via a QSL bureau in care of the manager, many times you will want to send your request directly to the manager's postal address. Remember, using the bureau is very economical, however, you give up speed (sometimes years!) when going this route. If you send your QSL request directly to the manager's postal address you will likely have a much quicker turnaround.

Most QSL managers require an SASE or an SAE with some type of return postage. The return postage can be in form of "green stamps" ($1 - $3 USD), IRCs (International Reply Coupons– Figure 2) or even "mint stamps" (new, unused stamps from the manager's country – Figure 3).

If you are lucky enough to be sending to a manager in your own country, most of the time including an SASE is fine. However, if you are sending outside of your country, it's quite common to include $1 - $3USD. In our example of K4M, even though it's going to a U.S. address, it would still be typical to include a dollar or two with your request. This is just a courtesy to help offset the cost of the DXpedition. Also remember that in many countries outside the U.S., postal charges are significantly higher to send mail overseas. While $.98 seems expensive to send an airmail letter, in many cases outside the US, it can be double or even triple the cost for return postage back to the United States. An alternative to

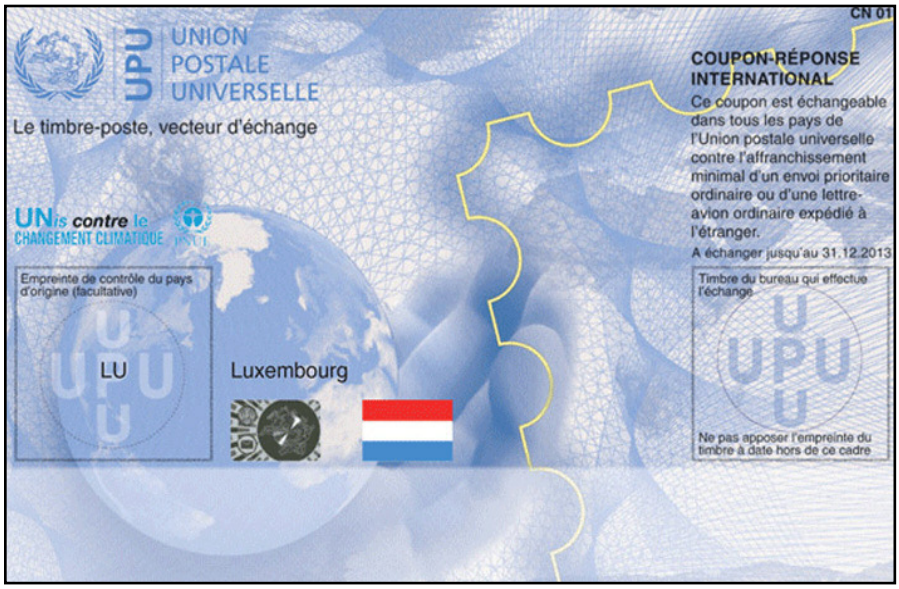

Figure 2.

sending "green stamps" (U.S. dollars), is to use an IRC. An IRC, in general, is a "certificate" which entitles the bearer the equivalent in postage for an airmail letter and can typically be purchased at your local Post Office.

So now that you understand how to prepare a QSL manager's request, let's assume you've worked two other stations that use the same manager. You might think it's OK to "bundle" your request with all of the cards in a single envelope. While you could do this, most QSL managers prefer you only include requests for one station per envelope. While there are exceptions to the rule, many managers have a method to their madness and including more than one request per envelope will usually result in a delay in processing thus taking longer for all of your cards being returned.

So here you have a brief overview of how both QSL bureaus and QSL managers work. The bureaus can be very friendly to your wallet, however, there are two things to keep in mind. Remember that not all DXCC entities have a QSL bureau and what you save in expense you pay for in time. Managers, on the other hand, are typically quick to respond which means you get the card sooner, but it is more costly. Also keep in mind that if you are QSLing via a manager, give them time to get to your request. Many QSL managers handle cards for more than one DX station. And if you worked a DXpedition, there is a good possibility that the manager will have to handle many thousands of QSL requests. As a general rule of thumb, six months is a good amount of time to wait for a QSL manager's response. While there is a good chance you will receive your card much sooner than that, allowing the manager plenty of time to "work the pile" of QSL cards will help speed up things.

Of course, such programs as Log - book of the World, eQSL, Global QSL and QRZ.com's newly announced logbook feature might provide less-expensive alternatives in your pursuit of DX QSLs – but that's a topic for a future column.

That's it for this month's column. I look forward to hearing your comments, complaints or whatever is on your mind. If you have a story or opinion you would like to share, please send it to me at n0vd@dxcentral.com. I'll do my best to include it in and upcoming column. Also look for me on Facebook or Twitter and until next time, see you in pileups!

Figure 3.

On the Prop Front: A Trio of Short Subjects

By Carl Luetzelschwab, K9LA

I usually collect quite a few ideas for columns via reader input, via comments on spots from PacketCluster, via comments on the various reflectors, via scientific journals, and via amateur radio publications. Many of these ideas simply aren't long enough for a full column. This month's column addresses three of these short subjects: daylight QSOs, encroaching noise, and solar magnetograms.

Daylight QSOs

In November 2009 I saw a PacketCluster spot from a W6 station in Arizona. He had just worked a UW7 (Ukraine) on 40 meter CW around 2312 UTC, and exclaimed "Daylight QSO!" If we look at this path using the mapping feature of W6ELProp (W6ELProp is a free download at **http://www.qsl.net/w6elprop**), we end up with Figure 1 (with additional annotations by me).

Although the Arizona end of the short path (the red line) was in daylight, it's obvious the bulk of the path was in darkness. So how much does this portion of the path in daylight affect the overall path? We can use Proplab Pro (a sophisticated ray tracing program from Solar Terrestrial Dispatch in Canada) to do a ray trace to give us the absorption for each hop. That's what the tabular data superimposed on Figure 1 is.

On 40 meters, we need five hops to cover the Arizona to Ukraine path. As expected, the first hop out of Arizona incurs the most loss. But the absorption for this one hop is low, and in fact the total absorption along the entire path is quite low. What this says is 40 meters can withstand a good amount of the path in daylight.

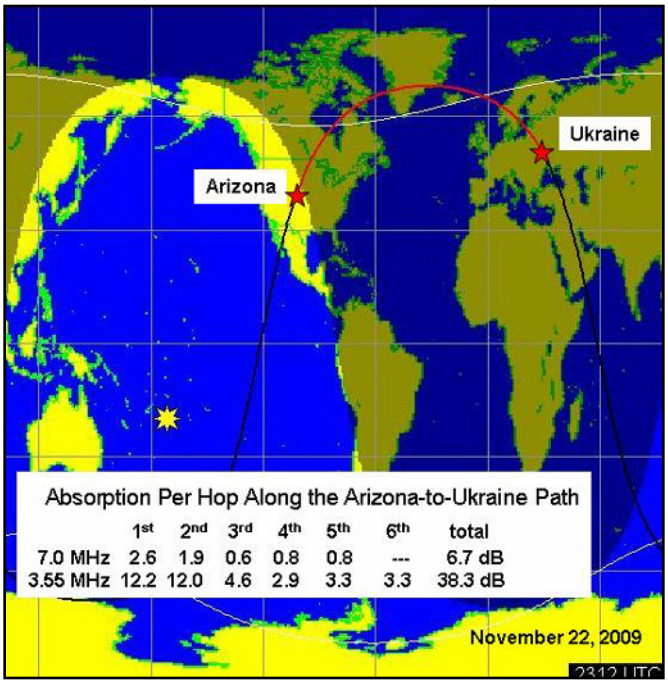

Figure 1 – Arizona to Ukraine

On 80 meters, we need six hops to cover Arizona to Ukraine. That's because, in general, hops are shorter as we move down in frequency (from the fact that the amount of refraction is inversely proportional to the square of the frequency, which also means an electromagnetic wave does not get as high in the ionosphere as we move down in frequency).

Continuing on 80 meters, the first hop out of Arizona incurs the most loss. But the second hop isn't too far behind. And the loss per hop has roughly quadrupled compared to 40 meters (from the fact that the amount of absorption is inversely proportional to the square of the frequency). The total absorption along the entire path is significantly higher due to the lower frequency and one more hop.

If we had done a ray trace on 160 meters, we would see even more absorption on the first couple hops and along the entire path.

So what matters is that part of the path in daylight that's going through the absorbing region of the ionosphere. This becomes more of an issue as we move down in frequency as hops are shorter and there is more absorption. And how quickly the path gets to darkness also contributes to this, with a path perpendicular to the terminator being best.

Encroaching Noise

The August and September 2005 columns discussed the impact of noise on our amateur radio operations. Included in the August column was a plot of man-made noise from the ITU (International Telecommunication Union) publication ITU-R P.372-7 titled Radio Noise. The data in that publication came from measurements made in the 1970s. With more and more electrical devices showing up, it kind of makes sense to expect that noise levels nowadays are higher than back in the 1970s.

Tied to this concept is an article that showed up in Physics Today (a publication of the American Institute of Physics) at the end of last year. It discussed light pollution (a critical issue for astronomy), and it used satellite measurements of sky glow (man-made lighting) from 1997 to extrapolate sky glow for the late 1950s, for the mid 1970s, and for 2025. Figure 2 is the sky glow data that was in this article (Reprinted with permission from Christian B. Luginbuhl, Constance E. Walker, and Richard J. Wainscoat, Physics Today, Vol 62, Page 32, 2009. Copyright 2009, American Institute of Physics).

The top left image is for the late 1950s. The top right image is for the mid 1970s. The bottom left image is the baseline measurement in 1997. The bottom right image is for 2025. The extrapolation backward and forward from 1997 assumes an annual growth rate of 6 percent.

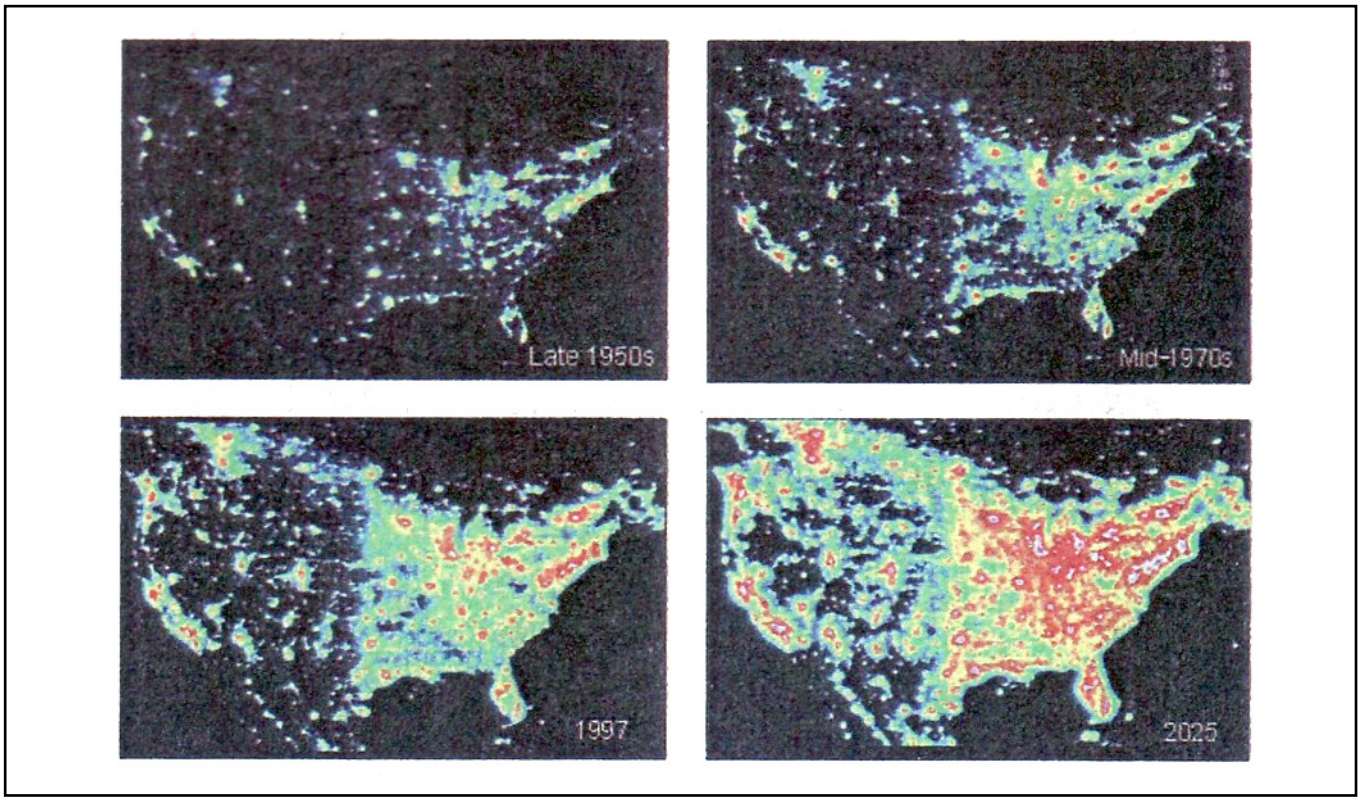

Figure 2 – Sky Glow For North America

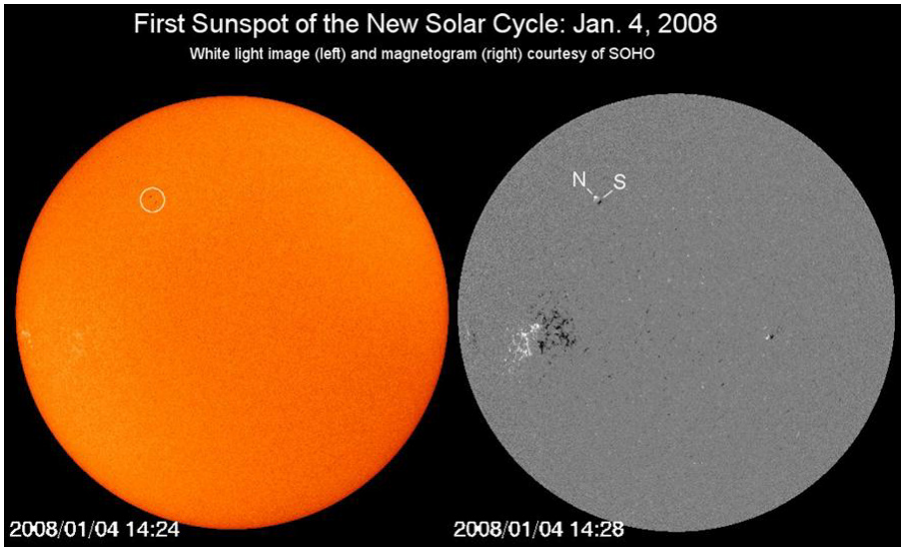

Figure 3 – Solar Magnetogram on January 4, 2008

What's troublesome is the extrapolation to 2025. If sky glow is correlated to man-made noise (I have no proof, but it certainly makes sense), then our future endeavors on the low bands may be tougher than now because we may not be able to hear weak signals as easily as we do now.

Solar Magnetograms

You've probably seen solar magnetograms on the various space weather web sites (for example, **http://www.swpc.noaa.gov** or **http://spaceweather.com**). What they allow solar scientists to do is determine the strength and location of magnetic fields on the Sun.

Specifically, magnetograms have black and white areas that indicate whether the magnetic fields of a sunspot region are either coming directly toward us or going away from us (into the Sun). By convention, the black areas are of south magnetic polarity, and are going into the Sun. The white areas are of north magnetic polarity, and are coming toward us. Gray areas indicate no magnetic field eruptions. For more details, visit **http://solar-center.stanford.edu/solar-images/magnetograms.html.**

There are two critical characteristics of sunspot regions to understand. First, sunspot regions of the same solar cycle are of opposite polarity in each hemisphere. Second, the polarity of sunspot regions changes from one solar cycle to the next.

Knowing these characteristics, coupled with the fact that sunspots of a new solar cycle form at high solar latitudes and drift toward the equatorial latitudes as a solar cycle progresses, allows solar scientists to determine what solar cycle a sunspot region is tied to when solar cycles overlap at solar minimum. Figure 3 (from the daily reports at **http://spaceweather.com**) shows the solar magnetogram (on the right) on January 4, 2008 – which had the first sunspot region of the new Cycle 24. I also added some annotations to the raw image.

Note that the old Cycle 23 sunspot regions were at low latitudes in the southern hemisphere and white was on the left of the sunspot region. The new Cycle 24 sunspot region was at high latitudes (one characteristic that points to it being from Cycle 24), also with white on the left. For it to have been from Cycle 23 means black would have been on the left (per the earlier characteristic that sunspot regions of the same solar cycle are of opposite polarity in each hemisphere). But since it was opposite to what was expected for a Cycle 23 sunspot region, it must have been a Cycle 24 sunspot region.

Figure 3 is certainly devoid of sunspot regions, as it shows solar activity during our recent extended solar minimum period (the longest solar minimum during our lifetimes, but not the longest in all history – in fact, it was just slightly longer than average). As Cycle 24 ramps up, solar magnetograms will show much more activity. You'll especially be able to see the "opposite polarity in each hemisphere" and "sunspot regions form at high latitudes when a solar cycle is beginning and form at lower and lower latitudes as the solar cycle progresses" characteristics, as we'll only see Cycle 24 sunspot regions for quite some time.

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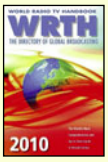

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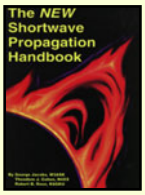

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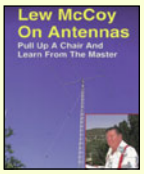

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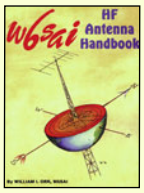

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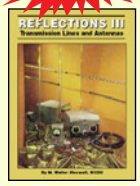

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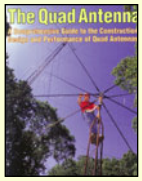

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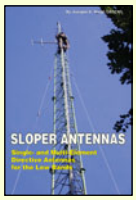

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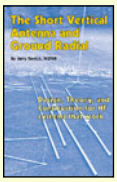

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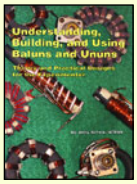

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Reflections On the 2010 Dayton Hamvention®–After 21 Years

by Dave Hayes VE3JX

This year marked my second time in attendance at the Dayton Hamvention®, currently the largest amateur radio gathering in North America.

My first Hamvention was in 1989. (That year, Bill Pasternak, WA6ITF, won Dayton's ***Ham of the Year*** award for his work in promoting amateur radio, particularly aimed toward our youth. Currently, Bill is a retiring QCWA Director. This year, he also did his popular ARNewsline Town Meeting at Dayton, this being his 28th time since 1980.) And now, 21 years later, I was able to return to ham radio "Mecca."

In general, my impression is that the indoor exhibits have greatly expanded, though the outside flea market seemed smaller than 1989. That is not necessarily a bad thing. In 1989 with the PC craze well underway, many of the flea market vendors were selling computer parts and PCs only. While there were some computer-oriented sales going on this year, computers were not as predominant as I remember. There were many older receivers available – Collins,' Drake's, Hallicrafters,' Hammarlund's, National's, etc. – and their military versions as well. It was a trip down memory lane to see them all.

Indoor exhibits were larger than 21 years ago. This may be partly due to several building additions. ARRL had a mighty presence there; one could get their hands on anything they currently publish, as their "Dayton" stock was unbelievable.

CQ Communications had a great exhibit as well, with their current magazine issues available at give-away prices. Of enjoyment to me was meeting the people behind the names, one of whom was my editor, Richard Fisher, KI6SN. It was a pleasure sharing a few thoughts with him; a "few" it had to be as the booth was humming with activity. We also met Rich Moseson, W2VU, editor of the flagship magazine, *CQ Amateur Radio,* also a QCWA member. I was introduced to the new

At the QCWA booth at Dayton are, seated from left, President Bob Roske, NØUF, and Past President Croft Taylor, VE3CT. Standing from left, are Director Carolyn Harrison WBØOUM; Jan Walbridge; and General Manager Chuck Walbridge, K1IGD.

QRP columnist for *CQ,* Cam Hartford, N6GA. His first column in the June *CQ* shows that he has hit the ground running full tilt. Congratulations, Cam!

Interestingly, it was at the *CQ* booth that I met another visitor, QCWA member Dave Sumner, K1ZZ, the CEO of the ARRL. Dave has lived a life devoted to amateur radio, joining ARRL's permanent HQ staff back in 1972. Thanks, Dave.

I also met Martin Jue, K5FLU, of MFJ Enterprises. Martin has put together a family of amateur radio manufacturing companies, maintaining a major North American presence in the accessories, amplifiers, and antennas marketplace. He is also known personally for his Heathkit collection, which shares his personal office space. He started MFJ in 1972, and it has grown to include Mirage, Vectronics, Ameritron, Hygain, and Cushcraft. Impressive!

As you can see, one of the personal highlights of Dayton, for me, was meeting many people one has heard about and perhaps conversed with through email or on the air. In fact, we humans being the social animals that we are, it is no wonder that this is one of the main aspects of large hamfests and conventions.

As a Canadian, meeting various Radio Amateurs of Canada people was a pleasure. Among them were RAC's new President, Geoff Bawden, VE4BAW; First Vice President, Ian MacFarquhar, VE9IM; and National Emergency Coordinator, Ken Oelke, VE6AFO. Ken Oelke is also QCWA's Vice President. Ken and I are great friends, and to be able to meet in the flesh was a priceless treat.

I also saw QCWA member Walt Maxwell, W2DU; he was riding around Dayton with a motorized wheelchair. He has just released an updated version of his famous book, *"Reflections III"*. (The CQ booth had many copies of it for sale and Walt was autographing copies there.) Other QCWA members met included most of the Executive and Board of Directors, as well as some of the new candidates for office.

Of specific interest to us were the various QCWA functions. First, QCWA had a very active booth at Dayton. It was a great place to meet other members, including our General Manager Chuck Walbridge, K1IGD, and his wife, Jan. I don't know if Chuck and Jan ever got to see anything else besides the space in front of the QCWA booth or not, but their efforts, along with those others who manned the booth, produced the highest number of Dayton "recruits" in some time. Well done! Here are the compared results:

	2010	2009	2008
NEW	56	32	39
RENEW	38	23	22
TOTALS	96	55	61

I would like to have helped the crew out, but I think they were having too much fun on their own.

One of the highlights for QCWA members at Dayton was the Friday evening banquet hosted by QCWA's Southwest Ohio Chapter 9. The meal was excellent and the associated program was very interesting. It was entitled: ***"The Wright Seaplane Experiments, 1913/14."***

It was intriguing to learn that the Wright brothers established a nearby seaplane base and experimented with different seaplane designs. I was previously aware that Alexander Graham Bell and friends were doing similar experiments out in Nova Scotia, but it was a treat to find out that Orville and Wilbur and company were doing the same thing in the Dayton area, perfecting their aircraft as time went on. There is a group that is endeavoring to restore the seaplane base as a historical site. The evening was a bargain at $23 a head! Thank you Chapter 9!

In this photograph taken with a cell phone, WRO QCWA columnist Dave Hayes, VE3JX, keys the "Blue Lightning" – a replica 500-watt rotary spark-gap transmitter on display at the Dayton Hamvention®.

At the banquet, a surprise presentation was made to Croft Taylor, VE3CT, long-time member and past-President of QCWA. Croft was awarded QCWA's most prestigious honor, the ***"Hall of Fame"*** award. According to the requirements, this award is given only to those who have already received *"substantial favorable recognition at the national or international level."* Croft had just been honored in Canada as a ***"Member of the Canadian Amateur Radio Hall of Fame."***

Croft joins several other Canadian QCWA members who have been so inducted in the past. They include: Fred Hammond, VE3HC,(SK); Bill Loucks, VE3AR, (SK); Bill Wilson,VE3NR, (SK); Noel Eaton, VE3CJ, (SK); and Tom Atkins, VE3CDM, (SK). The last time this Canadian honor was given out was in 2007, so three years have elapsed before bestowing it again. Congratulations Croft for both your CARHOF and QCWA honors!

The flagship QCWA event at Dayton was the QCWA forum. This year, the forum was actually the QCWA Annual Membership Meeting. Highlights from the AMM included presentations made to Vic Culver, W4VIC, and Larry McCalvy, WA9JMO.

Vic received the QCWA ***Member of the Year*** award. Vic has helped manage the "Audio Taping for the Blind" for QCWA for several years. He also chaired the committee responsible for hosting the 2008 QCWA Convention in Virginia Beach.

Larry received a framed copy of the QCWA Board of Director's ***Resolution*** to express ***"profound thanks to the committee members and spouses of Chapter 162"*** with ***"Special Recognition"*** going to Larry as the committee chairman. The Chapter 162 committee was responsible for organizing three Convention Cruises over the last decade; one Alaskan (2005), and two Caribbean (2001 and 2009).

Representatives were present for two future QCWA Conventions; (1) the Warwick, Rhode Island convention in 2011, hosted by five New England chapters; and (2) the Reno, Nevada convention planned for 2012, hosted by Northern California Chapter 11.

Reports were made by President Bob Roske, NØUF, and by the various QCWA Standing Committees. A major change to the dues structure was announced, which involves the formula for Lifetime Membership. The formula will increase from ***15x*** 1-year dues to ***20x***, as of the beginning of next year. That would mean a change for U.S. members from $375 to $500.

Bottom Line: If you have been thinking of committing to a QCWA Life Membership, you will ***save $125*** if you do so before the end of the year.

At the same time as the QCWA forum, there was one next door that was demonstrating the use of a ***"Synchronous Rotary 500W Spark-Gap Transmitter."*** As soon as the QCWA meeting was over, I went next door and lined up to operate the replica rig, lovingly made by Hal Kennedy Jr., N4GG. It's quite exhilarating to see the circular spark, and to smell the ozone. They had copies of ***"200 Meters and Down"*** by DeSoto available for purchase. (I already had it; one of the best books around dealing with the early days of ham radio, actually written in the mid-1930's.)

All in all, we had a really great time. In fact, the Trace Atkins' song kept coming up in my brain: *"I ain't never had too much fun!"* True, but I think we came pretty close.

Cheers, DaVe3JX.
Email: ve3jx@bell.net

The Rules Say...

John B. Johnston, W3BE

Is Emission Type 7K60FXE OK?

Q Our group has obtained several TDMA type APCO P-25 transceivers and repeaters originally intended for use on the UHF public safety band. We would like to coordinate them for use on our 70 cm band amateur service repeater channels. Is emission type 7K60FXE OK for our ham bands?

A. No. Although Section 97.305 authorizes MCW, phone, image, RTTY, data, SS and test, in addition to CW, on our entire 70 cm band, in Section 97.3(c), FXE is not included under the terms that are used for specifying emission types. Observe that it says to refer to Section 2.201 for information on emission type designators. There you will find that FXE is the symbol for *Frequency modulation, cases not otherwise covered, Telephony*.

You might check with the manufacturers of your transceivers and repeaters to establish whether or not their emission types can be somehow reclassified as one of those types that are authorized for our 70 cm amateur service band.

Q. While tuning the 160 meter band, I came across a net accepting check-ins from the 2 meter band. I also overheard Technician Class operators checking into this net who were using their 2 meter radios. The HF rig must have been cross-banded with 2 meters. Is that allowed?

A. Quite possibly. Section 97.113(f) says that no amateur station, except an auxiliary, repeater, or space station, may automatically retransmit the radio signals of other amateur stations. Those 160 meter retransmissions, therefore, could only have been repeated compliantly from our 2 meter band non-automatically, i.e., by manual actions of the 160 meter station control operator.

Unless someone can make a case that such retransmitting is not a good amateur practice under Section 97.101(a) or it is not making the most effective use of the amateur service frequencies under Section 97.101(b), those rules, at least, were not being violated.

W3BE-O-GRAM: If, however, there was a 2 meter – 160 meter repeater being used, that is disallowed. Section 97.205(b) says: A repeater may receive and retransmit only on the 10 meter and shorter wavelength frequency bands except the 28.0–29.5 MHz, 50.0–51.0 MHz, 144.0–144.5 MHz, 145.5–146.0 MHz, 222.00–222.15 MHz, 431.0–433.0 MHz, and 435.0–438.0 MHz segments.

Q. The widow of a ham who is now a Silent Key would like to get licensed and obtain his old call sign. Am I correct in assuming that after passing her exam that she must first go through the sequential call sign system and then apply for a vanity call sign requesting his old call sign?

A. Yes. When obtaining the license grant for the operator class required for the call sign group desired, her station will be assigned a call sign under the sequential system. Then she will be eligible to apply for the specific call sign under the vanity call sign system as the spouse of the former holder now deceased. Read *Section 97.19(c)(3)*.

Q. Is a repeater required to identify in telegraphy or is voice identification alone an acceptable method?

A. Either way is OK. For any station identification announcement, Section 97.119 says that the call sign must be transmitted with an emission authorized for the transmitting channel in one of the following ways:

(1) By a CW emission. When keyed by an automatic device used only for identification, the speed must not exceed 20 words per minute;

(2) By a phone emission in the English language. Use of a phonetic alphabet as an aid for correct station identification is encouraged;

(3) By a RTTY emission using a specified digital code when all or part of the communications is transmitted by a RTTY or data emission;

(4) By an image emission conforming to the applicable transmission standards, either color or monochrome, of Section 73.681 of the FCC Rules when all or part of the communications are transmitted in the same image emission.

W3BE-O-GRAM: Those repeater identification telegraphy announcements that you overhear are MCW (modulated continuous wave). Section 97.3(c)(5) says that MCW for the purpose of performing the station identification procedure may be considered phone.

Q. Another ham claims that the only acceptable way for a station to transmit its ID with voice is for his call sign to be the last thing given. I agree that is the normal way to give an ID, but not necessarily the only acceptable way. I maintain that another acceptable ID could be, "This is W8* turning it over to W3** with the rest of the group on the side." Obviously my call sign is not the last call sign given, but that phrasing is sufficiently clear to be legal.**

A. Section 97.119 must be the basis for your friend's protocol of causing or allowing his station to transmit the station identification announcement at the very end of each communication. It codifies the rules for our station identification announcements. Paragraph (a) says that it is the station that must transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every 10 minutes during a communication, for the purpose of clearly making the source of the transmissions from the station known to those receiving the transmissions.

W3BE-O-GRAM: For either protocol, the purpose of clearly making the source of the transmissions from the station known to those receiving them applies. Both appear to do that. Assuming, therefore, there is no significant impact on the workload of our amateur volunteers, your more-relaxed protocol might be arguably acceptable. The FCC rules, however, mean what they say. During any debate of just how close to the final utterance the station call sign must be, therefore, it's best to rely upon the word end in Section 97.119.

Q. There is still some confusion about a group QSO and the ID requirements for each individual station in the group. The main point being whether a station that is part of the group - after making a station identification announcement has been silent for some period of time - is required to make another station identification announcement following the next 10 minute interval. I maintain that as long as that station properly ID'd its last transmission they are under no obligation to transmit further identification when they have been silent even for a period of longer than 10 minutes. Instead, that station may continue to be silent and not transmit another station identification announcement until it, in the natural course of the conversation, makes its next transmission, at which time it would have to would ID again, even though more than 10 minutes has elapsed since its previous ID.

A. Your protocol is consistent with Section 97.119.

W3BE-O-GRAM: To facilitate communications, however, another protocol might be for all stations in the group to transmit round-robin station identification announcements every 10 minutes. Even though this goes beyond the minimum to satisfy the rule, it helps establish for all control operators in the group just which stations are currently available on-channel as well as aid the monitoring efforts of our amateur volunteers.

Q. I run an annual special event station. I would like to operate two stations next year. Can a ham friend who lives several miles away use the special event call sign from his house at the same time I run another station from my QTH?

A. Assuming that your FCC-assigned station call sign is the call sign shown on the special event call coordinators' data base as the one for which the special event call sign will be substituted, there is a way that you both can use the special event call sign at both homes simultaneously.

Your friend would have to place his station apparatus under your physical control during the event. Under Section 97.5(a), that would make you the station licensee for both stations. Then you designate him as the control operator of your station at his home. Read Section 97.103(b).

Read BE Informed No. 4, Which Call Sign, for more information.

Read the rules - Heed the rules

Visit http://www.w3BEInformed.org for links to rules and information sites. E-mail your questions about the amateur service rules to john@johnston.net.

SUPERHAM

Frank Donovan, W3LPL, CQ Contest Hall of Famer and DXer extraordinaire.

Frank recently hosted a gathering at his extraordinary station where we toured his ten-tower W3LPL antenna complex. For more photos, visit the W3LPL website linkable from http://www.w3BEInformed.org.

HAMFESTS & SPECIAL EVENTS

SEPTEMBER

NEW YORK – Special event station KC2RA on the air during this year's Kings County Repeater Association's annual 9/11 Memorial Event takes place a short walk from Ground Zero on Friday, Sept. 10 – 1300z-2300z. Operations on 14.295 USB, 14.070 PSK31, 7.250 LSB, D-Star REF020B, Echolink 64300. RF participants send card with SASE for commemorative QSL. KC2RA, POB 280288, Brooklyn, NY 11228. For more information: http://www.kc2ra.org.

ILLINOIS – 58th Annual W9DXCC Convention. Sept. 11, Elk Grove Village, Illinois. http://www.W9DXCC.com.

FLORIDA — Special event station K4MIA, commemorating National POW / MIA Recognition Day. On the air from Sept. 15 -19, 0000Z - 2359Z. Frequencies: 3.885, 7.185, 14,265, 21,300 SSB, 14.070 PSK. The third Friday in September is a day of remembrance for American Prisoners of War and those still Missing in Action. Please take a moment to remember these heroic soldiers. For K4MIA Special Event POW/MIA QSL, send your QSL and SASE to: Michael Bald 6758 Hall Blvd, Loxahatchee,FL, 33470. For information: http://www.qrz.com/db/K4MIA.

CONNECTICUT – Commemoration of P.T. Barnum's 200th Birthday, sponsored by B.E.A.R.S. / Bethel Office of Emergency Management, **KA1KD,** Bethel, CT – 1300 to 2100 UTC, Sept. 25. 14.265, 7.265, 21.365 MHz (+/- QRM). Stations may request a certificate. Details: KD1YV@arrl.net.

CONNECTICUT – Western Connecticut Hamfest, Sept. 12. Edmond Town Hall, 45 Main St. (Rt-6), Newtown, CT. Exit 10 off I-84. Contact Joe de Groot AB1DO, 203-938-4880; Web: http://www.danbury.org/cara/hamfest.html. (Talk-in 147.30+ PL100).

ONTARIO, CANADA – Halton County Radial Railway Museum, VC3M, celebrating Mississauga ARC's 25th anniversary. Saturday, Sept. 18, Milton, Ontario, Canada. 1400Z - 1800Z - 7.210 MHz. For certificates send QSL request and 2USD with a return envelope to Michael Brickell, VE3TKI, 2801 Bucklepost Crescent, Mississauga, Ontario, Canada, L5N 1E6. Please note we cannot use U.S. postage stamps in Canada. Information: ve3tki@sympatico.ca. Website: Mississauga ARC website, http://www.marc.on.ca and Halton County Radial Railway Museum website http://www.hcry.org.

OCTOBER

NEW YORK CITY - Hall of Science Amateur Radio Club Hamfest, New York Hall of Science parking lot, Flushing Meadow Corona Park, 47-01 111th St., Queens, on Oct. 3. Doors open for vendors at 7:30 a.m.; buyers admitted at 9 a.m. Free parking. Door prizes, Drop and Shop, QSL card checking, food and refreshments. Free admission to museum from 10-11 a.m., or $6 after that with hamfest ticket. VE exams at 10 a.m. Admission by donation: buyers $5, sellers $10 per space. Talk-in: 444.200 MHz repeater (PL 136.5); 145.270 MHz, -600 kHz (PL 136.5). Information: http://www.hosarc.org.

CALIFORNIA – Special event station N6W, in commemoration of National Wildlife Refuge Week, Sunday, Oct. 10 and Saturday, Oct. 16. Operating at the Kern County Wildlife Refuge in Delano. Operating both days on 20 meters around 14.240 (+/- QRM). Contact five stations listed as active sites to earn a certificate. Check http://www.nwrweek-radio.info/. For more information on the LCWR in Delano, visit: http://www.fws.gov/kern/refuges/kern/. QSL to N6AJ, 2701 Fordham, Bakersfield, CA 93305.

WISCONSIN - USS Cobia Amateur Radio Club, NB9QV, WW II Submarine "USS Cobia" AGSS-245 will be on the air commemorating the 28 submarines that were built in Manitowoc,WI during WW II era. Oct 23-24, 1400Z-2100Z - 7.250, 14.260 MHz (+/- 25kHz) SSB. For QSL send your QSL and a #10 SASE to: Fred Neuenfeldt W6BSF 4932 So. 10th St. Manitowoc,WI. 54220-9121. For a special color certificate please send $1 and your QSL to: Tom McNulty K0EFV 4015 Independence Ave. Waterloo,IA. 50703-9317. See: http://www.qrz.com/nb9qv for more information.

VIRGINIA - Lynchburg Amateur Radio Club, N4J. Archaeology Open House at Thomas Jefferson's Poplar Forest, his retreat home and farm in Bedford County, VA. Uncovering evidence of life and work on the plantation 200 years ago. Oct 9, 1300Z-2000Z, Forest, VA - 7.260, 14.263, 14.070 PSK. QSL. Dick Hiner, W4HMK, 3977 Waugh Switch Rd., Big Island, VA 24526. http://www.k4cq.n4kss.net.

NOVEMBER

FLORIDA – South Florida Ham Fest, Nov. 6 from 7 a.m. to 1 p.m. by the Boca Raton Amateur Radio Association at South County Civic Center, 16700 Jog Rd., Delray Beach, FL 33446. Sixty indoor vendor tables, FCC testing, technology forums, EmComm demonstrations, door prizes and more. Talk-in: 145.29 (PL 110.9) and 442.875 (PL 110.9). Admission $2 at the door, kids 12 and under free. $10 vendor tables. Contact: Walt Dreyfus, 954-481-5327 or email sfhf@brara.org. More information: http://www.southfloridahamfest.org.

Have your hamfest or special event listed . . . click here!

Visit Your Local RADIO CLUB

CALIFORNIA

Fresno Amateur Radio Club - Meets 2nd Friday/monthly, 7 PM at Cedar Lanes bowling alley, Cedar and Shields in Fresno. Net Sunday at 7 PM on W6TO/R, 146.94 (-) PL 141.3hz. Tech Net Wednesday at 7 PM on W6TO/R www.W6TO.com; W6TO@ARRL.net. Contact Ken, WA6OIB @559-323-6753 12/10

ILLINOIS

North Shore RC - www.ns9rc.org. - is one of Chicago's largest/most active radio clubs. Meetings feature a wide variety of amateur radio topics and are normally held on the second Tuesday of each month at 7:30 PM, the Heller Nature Center, 2821 Ridge Rd., Highland Park, IL. Regular weekly net is held on Thursday night at 8:00 PM on the 147.345+ (107.2) and 442.725+ (114.8) repeaters. Club's other repeaters include: 224.32- (110.9), D-Star 442.09375+ and 1292.20- voice and 1242.20 data. Provides licensing classes, exams and help to new hams. 11/10

VIRGINIA

Williamsburg Area Amateur Radio Club (WAARC) meets on 2nd Tuesday of each month at 7PM at James City County Library, 7700 Croaker Rd., Williamsburg, VA. Talk-in on 146.76 (~). Contact Ken, NU4I at 757-564-7731 or nu4i@arrl.net. Website www.k4rc.net 03/11

Click here to have your club listed!

WA2INM (SK): 525,600 Minutes, Times 67 Years

By Bill Pasternak, WA6ITF

This month's column is dedicated to the memory of Larry Levy, WA2INM, whose contributions in several fields impacted the lives of many who never even knew his name.

I can vividly remember my very first encounter with Larry Levy, WA2INM. It took place late one afternoon in the winter of 1959 shortly after I got on the air.

I've already described my first "make do" 6 meter station in a previous column, so I'll not dwell on it here. Suffice to say, a home built transmitter using a 6BQ6 TV sweep tube as a final amplifier / doubler is not very efficient at 50 MHz. Even less so when using a carrier control screen grid AM modulator.

For an antenna I had simply thrown a 50-foot length of wire out my second story bedroom window and used a cheap knife switch to transfer the antenna from transmit to receive. Yes, I knew about the need for resonant antennas, but there was no money in the kitty for coax. So the random wire was my only way to go.

My first QSO was pure luck. I got on the air on a day at the peak of a solar cycle when 6 meters was wide open. And with the authority of voice of a typical scared jack-rabbit, I called my first CQ. The station responding was some 1,300 miles away in Orlando, Florida.

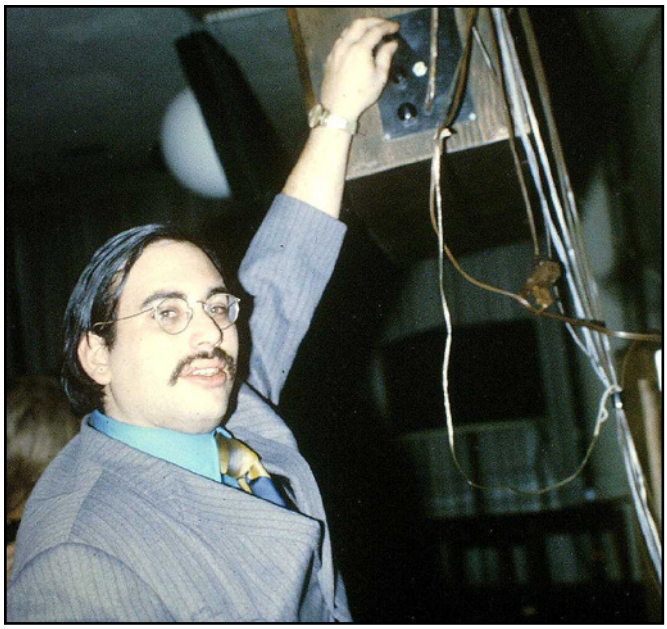
I had made my first contact and now could be considered a *real ham*. Only problem was that few in the metro-Brooklyn, New York City area where I lived could hear me. If I wanted to sign into the local AREC and RACES nets on 50.4 MHz and the net control station lived more than five miles away, I was in trouble. There was just a speck of RF peaking now and again above the band noise and requiring a station closer in to relay my presence.

So it was that one afternoon I turned up the volume on the receiver and heard these two guys talking on 50.4. Their call letters were WA2FMF and WA2INM. The conversation revolved around the quality of the audio that Larry, WA2INM, had achieved as described back to him by John, WA2FMF. So on a whim, I broke in: *This is WA2HVK, and how's my audio?*

Surprisingly, both Larry and John acknowledged me and said the audio sounded pretty good, but my RF was way down. It was only about an S-5 peaking to S-8 as I spoke on Larry's Hallicrafters SX-28 and Techcraft CC-50 converter. I was about the same on John's Gonset G50.

I was happy I was being heard and did not complain. Rather, I enjoyed the next few hours in QSO on matters of extreme urgency to teenage hams of the era, and those on-the-air meetings continued for some time. Soon I had the nerve to join the Kings County AREC and RACES nets – and life went on.

But on one particular evening, something was amiss. Though my neon "tune up" light was glowing, it was not as bright on audio peaks as I thought it should be. Then too, the needle on the plate current meter wasn't kicking as wildly as it usually did. But the real crushing blow came when Harlan Cohn, K2AAL, who was our net control, said that I was almost unreadable. Even worse was that Harlan was only three miles away. My carrier level was down and my audio was all but non existent. I was a ham radio mess!



Amateur radio operator and builder, inventor, computer guru and champion cat breeder Larry Levy, WA2INM (SK). ***(Courtesy of WA6ITF)***

So, there I sat with my three pieces of practice traffic in one hand, Astatic JT-30 microphone in the other and no way to share my test messages with the world of amateur radio. Woe was me. How would I ever get back in the good graces of the net? Not passing the practice traffic was an unforgivable act. I needed a miracle and one came my way. Enter, once again, Larry Levy, WA2INM.

I was about to shut down and pack it in for the evening when I heard the booming signal that just about shook the Heathkit all-wave receiver off the table:

WA2HVK this is WA2INM calling and by.

"My god," I thought, "I wonder why Larry is calling me?" I soon found out.

It seems that Lawrence Irwin Levy was not only one of the six meter big-gun DXers of the early 1960s – he was also a radio designer. A builder. An experimenter and just about everything else you would expect a devotee of amateur radio to be. And, that was not bad for a guy who was two years younger then me. Larry was but 17 years old but already he had a reputation that went far and wide. At least as far as Levittown, Pennsylvania, which in those days was considered a remarkable day-to-day contact for the 50 MHz band.

Anyhow, the reason for the call was to offer me a hand in getting my transmitter going again. It was the simple act of one ham offering his help to another who was in distress. But this was no ordinary ham making the offer. It was coming from the king himself. I was impressed and delighted.

We arranged to meet after school the next day. Larry then gave me his address – in code – that's code as in *Morse* code, but not sent with a key. No, as was the practice of the day, he simply hummed it to me in MCW. Nobody on six meters had a code key, and few had radio gear with a key jack. No, back then to send CW, you hummed it if you needed to use it.

School seemed to drag on and on. I thought it would never end. All I could think of was getting to meet the six meter DX king of Flatbush Brooklyn, New York. In the short time that WA2INM had been on the air he had racked up an impressive list of 29 states and two foreign countries confirmed by QSL. In those days it only cost three cents to send out a QSL card, so even we kids were into collecting them. For me, having never worked anyone further away than Coney Island, his record of contacts was impressive.

Finally, it was three o 'clock. School was out and I made a beeline for the Avenue J bus. This was the same bus I rode to and from school every day, but today I would not disembark in front of the Marlboro Theater. No, I was going almost all the way to the end of the line. I was going to Flatbush. To East 18th Street. Under my arm – held tightly – was my pride and joy: My under-modulated and sadly broken transmitter. Could it be brought back to life by the genius of WA2INM? The next few hours in radio surgery would tell that story.

The bus stopped at East 18th Street and the broken transmitter and I disembarked. Now, what were those directions? Oh yes: *Walk north on East 18th Street and look for a white house with a five element six meter beam on the roof.*

Well, most of the six meter five element beams of the day were not much bigger than television antennas, so imagine my surprise to see one that not only spanned the width of the roof, but overhung the house on either side. This had to be the place. I climbed the stairs and rang the bell.

The door was quickly answered by a very pleasant lady who I quickly learned was Larry's mother, Carolyn. She ushered me through the hall and living room and to a door in the kitchen – a door with a narrow stairway that led to the inner sanctum of her son, Larry. A place that many westerners are unaware even exists. A place called the basement.

Basement, yes. But only in the broadest sense. From one end to the other were boxes filled with what I can only describe as the best electronic junk that money could buy. In the middle was a large table on which was piled a number of chassis all showing some degree of work had been performed on them – unfinished projects that were being worked up by WA2INM.

There were other boxes filled with what looked to be military surplus radio gear. From the ceiling were suspended more aluminum rods than I thought could ever exist, while the floor was strewn with dead parts – broken resistors, defunct condensers, crushed pilot lamps. Not a place to walk barefoot. I had entered the lair of a true craftsman. And, there before me standing barefoot *(well, what did you expect?)* with his glowing WEN soldering iron in one hand and a roll of Kester 60-40 in the other, was none other then the boy-genius-cum-big-gun-DXer himself. I was but a shadow in his presence.

"Hi. I'm Larry," he said. "Is that the broken transmitter? Bring it here. Take the case off and find a spot for it on the bench. But be careful not to knock any parts off. I'm working on a new super sensitive 6 meter regen receiver and I'll be finished in a few minutes."

By now the tip on the WEN gun had gone from pale red to bright white, but Larry never noticed. He simply gave it a good shake to flick off the oxidized solder and continued for another quarter hour. All the time giving me a running commentary on what he was doing.

Then without so much as missing a beat, he placed the receiver chassis onto the table holding his unfinished works and slid my radio under the glare of the bare and clear 150 watt bulb that illuminated the workbench.

"Rotten design," he said, "but I'll fix it."

He did not bother to plug the set in. No, he just looked at it and then back to me, smiled and said: "Your problem is that you have been trying to screen modulate a triode."

"No way," I said. "A 6BQ6 is a pentode. A beam power pentode. The red tube RCA book says so. Besides, it's been working great until yesterday's net."

"That may have been a pentode when it was made by Tung Sol," Larry said, "but it's melted itself into a triode. Look, I'll prove it. Here's a good 6BQ6. Watch."

Larry inserted the new tube in place of my original, plugged the rig into a wall socket and hooked a 40-watt lamp to the S0-239 coax connector. He flicked the transmit switch and my neon lamp glowed pink. In fact, it was *pinker* than I had ever seen it and there wasn't even a microphone attached to the set.

Larry fiddled with the controls but there was no glow in the 40-watt dummy load lamp. He reached up and turned off the basement light and in the dark a very faint glow could be discerned in the dummy load. I reminded Larry about the controlled carrier modulator. He grunted something like ". . . Right. Stupid carrier control audio," and stuck his finger onto the center conductor of the microphone jack.

The lamp lit more and I was elated. But Larry muttered again. He simply said: "This will never do."

The basement light came on and I was given a quick dissertation on what was wrong with the design of my transmitter.

First off, I was using a TV sweep tube as a final amplifier. I needed a transmitting tube and one that was good at 50 MHz. I told Larry I couldn't afford one. He simply reached over to a bag chock full of glass envelopes, sloshed his hand around and withdrew something he introduced to me as a 2E26. He then rewired the final amplifier socket to accept the new bottle. He inserted it, changed the plate capacitor for the larger variety and again fired up the rig.

Again with one finger on the microphone jack he tuned the grid, plate and load controls. Amazingly we saw a dull red glow in the 40 watt load lamp. Dull, yes, but far brighter than with the 6BQ6. And the neon load lamp was so bright I thought it was going to jump out of the front panel!

"You need a tune-up switch," said WA2INM as he reached for his electric drill.

Soon a hole was cut in the front panel and a large, very ugly bat handle toggle switch was protruding from it – a switch that in no way matched the aesthetics of any other part of the front panel.

Now the radio was upside down and Larry was running wires and soldering in parts. He turned the set upright and powered it up again.

Flipping to transmit this time brought a mid-yellowish light from the dummy load. And low-and-behold, the lamp is brightest when the plate meter dips at about 70 milliamperes. The tune / oper-

ate switch is now put in its down position and the lamp returns to its ultra-pale red and the plate meter drops to around 18 mills. Larry plugs in the microphone and talks. The load lamp goes from dull to medium red. WA2INM is not happy.

"Final amps that double are so inefficient," Larry said. "We need a buffer doubler. Ah. This will do. A 6BA6. That should work."

The drill appears again, followed by a chassis punch. Next a tube socket is installed. Not with screws and nuts or with rivets. No, Larry and his trusty WEN solder the darn thing right to the chassis. Smoke and solder fumes fill the basement air.

Out comes an assortment of Air-Dux coil stock. Remember Air-Dux coil stock? That shiny wire held by plastic ribs? Well, Larry had more Air-Dux than all the stores on Cortland Street's Radio Row had, combined.

Larry cut off a piece. The solder fumes grew thicker. He handed me a 10-pound bag of assorted resistors and asked me to find him a 22 K / 2-watt *jobbie*. I can't. He said to give him any two watt resistor. I locate a 10 K. He said fine. He installed it.

Another bag of parts. This one filed with ceramic capacitors. All marked .001 Mfd at 1 KV. Larry grabs a handful and starts installing them everywhere. And I mean everywhere.

Minutes drag into an hour. Then two hours. Then I hear the upstairs door open and a nice man with a mustache appears. It's Larry's dad, Max, and I'm invited to stay for dinner.

I called home. My mother says it's OK. Mrs. Levy has prepared one terrific feast, but Larry and I just gulp it down. There is still a pretty sick transmitter lying open on the operating table. Dr. Levy must save it in emergency surgery.

Finally, with solder fumes rising, more parts were installed until Larry said the job is complete. Time to smoke test it. He plugged it into the 110 VAC. The filaments came to life. The transmit switch was thrown and the 40-watt load lit as if it were across the AC mains. I was so astonished that I didn't notice the crystal wasn't plugged into its socket!

Larry noticed. He muttered the age-old curse – "Damn parasitics." He proceeded to install another part: a 100 ohm / 2 watt resistor with a few turns of wire shorting it out. He called it a parasitic choke.

He fired the rig up again – still no crystal – the lamp glowed, but the glow is dull. WA2INM muttered: "Needs neutralization. Where's the bus wire?"

Again the power goes off and more parts appeared from boxes and bags. The swirl of smoke rose once more from the red glow of the WEN soldering iron. Solder blobs fell to the floor. Time dragged on. And on. At least it seemed that way to me.

Then, with a groan that had become a WA2INM trademark, Larry said: "It's ready. Let's see what it will do."

Again AC is applied. Again filaments glowed and again the load lamp burned brightly with no crystal in the socket. Then without so much as a nod, Larry picked up a piece of scrap plastic rod from the floor, filed it to a screwdriver edge and started to adjust something. The light goes out!

"Its neutralized!" Larry exclaimed. "Hand me the rock."

The rock – the 50.4 MHz crystal – is plugged into its front panel socket and tune-up is begins. An EICO VTVM with a RF probe is hooked to the control grid of the 6BA6 doubler and the oscillator tuned for maximum. The probe now goes to the grid of the 2E26 and Larry tuned the doubler plate to resonance.

Then, he switched on full screen voltage and with a flick of his wrist tuned the tank circuit for a dip in the plate meter. My neon lamp glowed almost pink white. The load lamp glowed almost to full brightness.

"Damn thing might make a contact yet," Larry said.

Now came the real world test. Time to put it on the air. We buttoned it back into its cabinet and headed upstairs to Larry's room – to the six meter DX capital of Brooklyn. Boy, was I in for a shock.

You see, I had these delusions of a gigantic station. Six-foot high racks covering each wall. Mercury vapor tubes that would glow brightly on audio peaks. A *real man's* ham radio station.

What do I find? An old wooden desk on which sat a vintage – even then – Hallicrafters SX-28 Super Skyrider receiver. Sitting atop that metal monster was a Techcraft CC-50 converter with all of the coils peaked to the low end of the band.

To its left was an open frame chassis with but two tubes and one meter on it. Larry's DX transmitter was nothing more than a 6U8 dual purpose triode-pentode into a 6146 amplifier with 400 VDC coming from the power supply via the plate modulator. And that modulator was simplicity itself. Larry had tied the audio output from a 10-watt Arkay Hi-Fi amplifi-

er through a war surplus matching transformer into the grids of a pair of 1625 tubes. They were running pure Class A and supplied about 50 watts of audio to his 40-watt R-F deck. Larry Levy was never known to want for audio.

There were wires and cables everywhere. Mostly short lengths of bell wire and pieces of RG-58 U coax. All of it seemed to hook to an open frame double-pole / double-throw relay sitting on a sub chassis taped to the transmitter chassis. It finally hit me: That was the transmit/receive relay.

It was then I realized that something was missing. There were no coax connectors. Not an SO239 or PL259 in the whole mess. I asked Larry about this and he answered that he didn't believe in them. Too much loss. Besides, solder worked fine and also cost less. Who was I to question his wisdom?

Clearing his schoolbooks from atop the Arkay amplifier, my transmitter was installed. Larry fumbled around and brought forth a coax line. He said it was to his standby coax dipole. There was no connector on that cable either. Larry simply pushed the center conductor into the SO239 on my rig and used tape to ground the braid to the chassis.

He reached over, twisted a knob and the SX-28 sprang to life. It was never turned off. The SX-28 was always there in standby in case some rare DX appeared on the band. For Larry, knowing that DX was on the air was instinct.

The dial of the SX-28 read 14.4 MHz. This loosely corresponded to 50.4 MHz. He reached over to the front panel of an old military surplus ARC 5 transmitter and flipped the button. The loudest squeal I had ever heard erupted from the SX-28. He adjusted the tuning and explained that this was his VFO. A 100 watt output VFO running at 4 MHz. Talk about grid drive!

Suddenly there was utter silence. The transmitter was zeroed on frequency. He picked up a switch wrapped in tape with a piece of zip cord attached. It was the transmit switch – which I later learned was connected directly between his transfer relay and the 110 volt power mains. The button was pushed and a humming noise was heard as the SX-28 went silent.

A hand reached over and dipped the final tank. A modulation transformer squealed. A fist came down hard on a chassis. The squeal stopped. Larry muttered, "100 milliamps at 420 volts. That should do."

CQ 6, CQ 6, CQ 6. This is WA2INM. Whiskey Alpha 2 I Need Money in Brooklyn New York calling and bye.

Then an answer: *W-A-2-I-Need-Money from WA2FMF. Copy, Larry?*

After the usual hellos and all important pinning of S-meter signal reports, Larry told John that he has another transmitter to try. Look for it near the same frequency – 50.4.

Picking up my JT-30 microphone, Larry gave John a call with my transmitter. Immediately, the response. "It's not as strong, but the audio sure sounds cleaner than your rig," John said.

Reports gathered over the next year from my house were the same. The rig never sounded that good.

A few weeks after the "radio surgery," a new dipole was hung under the eave of the house. It made both the transmitter and receiver sound even better. Needless to say, this stealth dipole had been designed by the ever-talented Larry Levy, WA2INM.

In the years that followed Larry and his family became like my second family. Max and Carolyn were among the first to come and pay their respects several months later when my mother succumbed to Non-Hodgkins Lymphoma. When my family life became unbearable and I moved out, I spent the first two weeks of my newfound freedom living at their place and sleeping on a couch in the living room.

A few years later, after Larry finished college, the two of us founded "Electronic Services" and its disco lighting / sound reinforcement subsidiary "The Mind Garden." It was Larry who devised the first sound-controlled split frequency audio controlled disco lighting system. He dubbed it "The Color Organ" with the larger size units capable of feeding as many separate channels of color light as a customer could imagine. It was a design at least a decade ahead of its time.

In 1970 I was best man at Larry's wedding to his first wife. A year later he reciprocated when Sharon and I were wed.

Larry also designed combined disco lighting and loudspeaker boxes he called "Sound-Light Columns." Fed by a pair of 200-watt rebuilt Seeburg jukebox amplifiers, these seven-foot tall combined "light show and public address speaker units" became the "must have" rental for parties among New York City's social set. This included three years of providing the columns and other effects to the United States Mission to the United Nations Christmas Party and the 1971 Friars Club gathering at the Waldorf-

Astoria Hotel in Manhattan to honor the "5th Dimension" singing group.

By 1970 the "big boys" in the industry had caught wind of our success and wanted part or all of the action. We kind of got tired of the bidding wars where a large competitor with a more diversified client base could afford to underbid. Nor were they ashamed that they had reverse engineered Larry's designs to build their own.

Larry, not being the litigious type, didn't seem to care. He already had a new interest in mini-computers and began building one based on pre-I/C Resistor / Transistor (RTL) Logic. He also had taken an interest in breeding the then rather rare Red Point Siamese cats. By the late fall of 1971 the business could no longer support two families. I sold my interest to him, took a job fixing TV sets for a former employer and we began planning our move to California.

The last time I spoke to Larry while I was still a New Yorker was on 2 meter FM from my 1971 Torino as Sharon and I headed west across Staten Island toward whatever adventure life on the other side of the nation had to offer. Our next contact was on the phone a few months later. By then he had closed the store and was playing full time with computers. He also had a half dozen Siamese cats that we got to meet about 18 months later on our first trip back to the Big Apple.

In the decade or so that followed, Larry's interest in computers grew to a point where be became a contributor to the "Geek Squad" that invented the very first IBM PC. I've never been quite certain of exactly what he did. In fact Larry never said much about his involvement, other than describing it as "fun." I'm fairly sure it had something to do with the original eight-bit bus, but that's about it. I actually learned of it from his now deceased father Max and later coaxed a bit more information from Larry. Maybe one of you out there in the world of computers has that information.

As I mentioned earlier, when we were in business, Larry developed an interest in cat breeding. As his involvement in this venture grew it became his fulltime profession. By the mid-1990's he was recognized as being a world-class champion breeder of show cats. He and his second wife Nicole founded B-Jay Cattery with offices in Yorktown Heights, New York and Paris, France. (http://tinyurl.com/3y9o8lq).

Because of our divergent interests and the almost 3,000 miles between us, we did not see one another all that often. Many times I would be on a trip to New York, call Larry only to learn that he was overseas. He was not on the air for a number of years so we talked either by telephone or via e-mail from the mid-1980's forward.

I think that the last time we were together was maybe a dozen or so years ago when we both happened to be in the New York City area the same weekend. Larry, Nicole and I spent a fun afternoon at the now closed Lundy's seafood restaurant in Sheepshead Bay, Brooklyn with much of the talk being devoted to catching up on our lives over the years.

Our final telephone and e-mail exchanges took place this past April. It was on the morning of May 31st that I received a short email from a mutual acquaintance, Victor Miller, which read: *Bill, I just heard this morning that Larry died of a massive heart attack. Very sad. Victor.*

And there I sat for close to an hour, just staring at the message on the screen and not knowing what to say. Not knowing how to respond. I just sat there and stared.

The next day I called Nicole and learned the details of what had happened. From the information supplied by Victor and Nicole, along with my own memories of our 51+ year friendship, I did what I had to do. I pushed aside my feelings, sat down at this same keyboard and wrote the obituary for the "kid ham" who grew up to have three careers: inventor, computer guru and champion cat breeder.

I then pasted the story into the top of the *C,* or *Third* section of the next *Amateur Radio Newsline* bulletin, walked into the kitchen, grabbed a diet Pepsi, sat down at the kitchen table and turned to the solace of music that brings me through these times. This time in the song *Seasons of Love* from Jonathan Larsen's "Rent." Its words seemed so apropos:

"Five hundred twenty-five thousand
Six hundred minutes,
Five hundred twenty-five thousand
Moments so dear.
Five hundred twenty-five thousand
Six hundred minutes
How do you measure, measure a year?
In daylights, in sunsets, in midnights
In cups of coffee
In inches, in miles, in laughter, in strife.
In five hundred twenty-five thousand
Six hundred minutes
How do you measure
A year in the life?"

And as the music played, I cried…De WA6ITF

Out and About in the Fall Contesting Season

By Richard Fisher, KI6SN

Vacations are over. The kids are heading back to school. The first day of autumn is just around the corner – September 23. And as we're settling back into a work-a-day routine, radio amateurs are transitioning into the fall contesting season. What a *great* time of year for trail-friendly radio.

For a good portion of North America, Mother Nature is dialing back the heat, adding a beautiful splash of arboreal color and turning down the static on the high-frequency bands. Is there a better scenario to get outside to operate?

When you think about it, contesting and T-FR can make a perfect match for one another. True, you'll have to leave that 3-element beam and 70-foot tower at home, but the trade-off can be a quiet and beautiful operating location with simple antennas at an elevation of thousands of feet or mere steps from the water's edge.

You'll be guaranteed lots of band activity and operators willing to pull even less-than-S9 signals out of the pack to pick up points and multipliers. With advancing technologies, just about any mode and any frequency – CW, SSB, FM, digital, HF, VHF/UHF and beyond – are possible in field contest operation.

Bruce Horn, WA7BNM, hosts a popular online contest calendar that carries a comprehensive list of operating events year around. It's a smorgasbord sure to hit on just about every operating mode and spectrum you use.

CQ Amateur Radio's web site has an excellent calendar of its sponsored contests as well – some of the most popular events during the contest year.

Checking such sources, this month, for example, you'll find competition ranging from the All Asian DX Contest, Phone (September 4-5) and CQ Worldwide DX Contest, RTTY (September 25-26) to the Texas and South Carolina QSO parties (September 25-26 and September 18-19, respectively) and North American Sprint, CW (September 12).

Deeper in the season are even bigger events, such as the CQ Worldwide DX contests (SSB, October 30-31; CW, November 27-28) and ARRL November Sweepstakes (CW, November 6-8; SSB, November 20-22).

If you're up for testing the mettle of your T-FR station, antennas and operating skills, contest weekends are a wonderful time to do it.

The first order of business, though, should be developing your plan for the fall contest season. Here are some tips to consider:

YOUR CONTESTING "GO BAG" - It can be a real pain in the neck having to gather all the elements needed to participate in a contest every time you head into the field. Setting aside a contesting "go bag" can eliminate the hassle. It's your contest station – including logging and dupe sheets, pencils, radio and antenna gear, batteries, Morse paddle, headphones and so on – all in one tidy backpack. I've assembled one by choosing a contest weekend and operating from my back yard. After making contacts, I disassemble my portable station and put all the pieces into the "go bag." Any time I remove a piece from the bag – say the keyer paddle – I make note of it on an index card and put the card in the bag. This way, next time I'm heading into the field, I check the bag in advance to see what I need to replenish my set-up. There's nothing worse than getting to your contest location and discovering you're missing headphones or a battery or that coax jumper cable.

CQ Amateur Radio* magazine's QRP columnist Cam Hartford, N6GA, designed a trail-friendly, contestworthy radio in the mid-1990s that would become one of the inspirations for Elecraft's renowned KX-1 T-FR transceiver.** ***(Courtesy of KI6SN)

YOUR CALENDAR - Check the WA7BNM Contest Calendar, *CQ* or other websites to plan your events activity in the coming months from the field. Write them down and do your homework in advance. What is the contest period? Exchange? Multipliers? Power classes? Rules?

SET A GOAL - Having a number to work for is a great "carrot" to strive for – even if it's merely doing better this time than you did last. It's OK to compete against yourself. If your QSO count results in a winning certificate, all the better. By all means, though, establish a number to work toward.

FEELING OUT THE PROP - By working a less-desirable contest a month in advance of the high-priority event you've highlighted on your calendar, you'll be able to get a general sense of propagation and band conditions. The Sun makes a full revolution every 27 days.

OPERATING COMFORT - Unlike casual rag chewing, contesting in the field may find you parked in an operating position for hours at a time. Ergonomics should be an important consideration when choosing your site. Coming home sore and grouchy is no way to cap off a contest weekend. Plan ahead for comfort.

START SMALL - In the beginning, keep it simple. If you're new to field contesting, focus on operating one band with the best gear and antenna system you can carry. Compromising effi-

N6GA's "T-FR 40-40" was built for field operating convenience in outdoor contesting, rag chewing, DXing or any other on-air pursuit.

ciency for multi-band versatility can sometimes ruin the best-laid plans. You can add more frequencies and modes later as you fine tune your operating set-up and skills.

MAKE YOURSELF DESIRABLE - Sometimes hopping into the car and operating from a different county or state, or from an island can make you a real "catch" at contest time. If you're considered *rare*, you might be surprised by how others line-up to work you.

PRACTICE - If you're primarily a CW operator heading into an SSB contest, get on phone a week or two prior to the event. Getting familiar and comfortable with the microphone in advance can make all the difference. The same holds true for the phone operator participating in a CW contest. Limbering your fist ahead of time will give you confidence when the competition begins.

MAKE A LOG - Be sure your log sheets align with the contest exchange – especially if you're doing it by hand. More and more, field operators are using PDAs (personal digital assistant palm-top computers) or lightweight notebook-style computers to record contacts. It's a great way to go, especially when dupes (duplicate contacts) are an issue. The computer will do the dupe-checking for you. Remember: Accuracy is paramount.

SUBMIT A LOG - Without reporting your score, contesting from the field can become just another day of T-FR. By submitting a log you're adding accountability to your contesting portfolio and also notching a benchmark to eye – and surpass – when you compete next time.

THE "LEARNING EXPERIENCE" - With each contest, methodically make note of what worked well and those areas in which you need to improve. The focus can be on anything from backpacking gear or antenna raising techniques to the radio set-up or operating strategy. It will make each subsequent operating event more comfortable and enjoyable. The Military Auxiliary Radio System (MARS) has something called the "After Action Report" – a great concept to apply in your personal contesting habit.

MORE IDEAS? - These tips only scratch the surface for making outdoor contesting a rewarding part of your regular amateur radio routine. If you have suggestions or ideas for further enhancing the experience, please drop me an e-mail and we'll share them with ***WRO*** readers in an upcoming column. Write: KI6SN@aol.com.

Meantime, draft your own outdoor contesting plan and we'll keep an ear out for you during the competition on the bands.

CONTEST: All-Asian DX
DATE & TIME: 0000Z 4 Sep - 2359Z 5 Sep
BANDS/MODE: 160-10M SSB
POINTS: 1 Pt. 40-15M; 2 Pts 80 or 10M; 3 Pts. 160M
MULTIPLIERS: Asian prefixes on each band
EXCHANGE: OM's give RS + age; YL's give RST + age (or "00" if desired)
ENTRY CATEGORIES: Single op, Single band; Single Op, Multi-band; Multi-Multi (NOTE: Asian sta's may use High or Low power (100W or less), Non-Asian stations use High power only)
ENTRIES: 30 Days JARL All Asian DX Phone Contest 170-8073 Tokyo, Japan E-mail: aaph@jarl.or.jp
Rules at: http://www.jarl.or.jp/English/4_Library/A-4-3_Contests/2010AA_Rule.htm
Log forms at: http://www.jarl.or.jp/English/4_Library/A-4-3_Contests/aadxlog.pdf

CONTEST: AGCW Straight Key Party
DATE & TIME: 1300-1600Z 4 Sep
BANDS/MODE: 80/40M CW
POINTS: 9 Pts. A to A; 7 Pts. A to B; 5 Pts. A to C; 4 Pts. B to B; 3 Pts. B to C; 2 Pts. C to C
MULTIPLIERS: None
EXCHANGE: RST + Serial # + Category + Name + Age (YL's can give "XX" for age)
ENTRY CATEGORIES: A = <5W; B = 5-50W; C = 50-150W
ENTRIES: 30 Sep. Friedrich W. Fabri, DF1OY Hermann-Bahner-Strasse 1, 63225 Langen Germany
E-mail: htp@agcw.de
Web page: www.agcw.de
Rules (In German, English not available) at: http://www.agcw.org/?Contests:Handtastenparty_%28Straight_Key_Party%29

CONTEST: Colorado QSO Party
DATE & TIME: 1200Z 4 Sep – 0400Z 5 Sep
BANDS/MODE: 160-UHF SSB/CW/Digi
POINTS: 1 Pt. SSB/FM; 2 Pts. CW
MULTIPLIERS: Too many to list – see rules!
EXCHANGE: CO sta's send Call+Name+County (64 possible); All others send Call+Name+State/Country
ENTRY CATEGORIES: Single op; Multi op, Single XMTR; Multi op, Multi XMTR's; Mobile; Schools
ENTRIES: 6 Oct. Colorado QSO Party P.O. Box q16521, Colorado Springs, CO 80935-6521
Cabrillo to: coqplogs@ppraa.org
Web page: http://www.ppraa.org/coqp/
Rules at: http://www.ppraa.org/coqp/2009%20COQP%20Rules%209-1%2006-24-09.pdf

CONTEST: Tennessee QSO Party
DATE & TIME: 1800Z 5 Sep – 0300Z 6 Sep
BANDS/MODE: All Bands SSB/FM/CW/Digi
POINTS: 2 Pts. SSB/FM; 3 Pts all other modes
MULTIPLIERS: TN Counties (95 possible); TN sta's count TN Counties + other states/Provinces/DXCC
EXCHANGE: TN sta's send RS(T) + County; All others send RS(T) + State/Province/Country
ENTRY CATEGORIES: Single op, QRP, Low, High; Multi-op – QRP, Low, High, Mobile
ENTRIES: 8 Oct. Tennessee QSO Party c/o Doug Smith, W9WI 1389 Old Clarksville Pike, Pleasant View, TN 37146-8098
Cabrillo (preferred) to: logs@tnqp.org
Rules at: http://www.tnqp.org/html/rules.htm

CONTEST: MI QRP Labor Day CW Sprint
DATE & TIME: 2300Z 6 Sep - 0300Z 7 Sep
BANDS/MODE: 160-6M CW
POINTS: 2 Pts. W/VE non-members; 4 Pts. DX non-members; 5 Pts. member sta QSOs
MULTIPLIERS: States/Provinces/Countries on all bands
EXCHANGE: RST + QTH + MI-QRP number (non-members give power)
ENTRY CATEGORIES: A = <250mW; B = 250mW - 1W; C = 1-5W; D = >5W
ENTRIES: 30 Days Hank Greeb, N8XX, 5727 11 Mile Rd., NE, Rockford, MI 49341-9502
E-mail: n8xx@arrl.org
Web page: www.qsl.net/miqrpclub/contest.html

CONTEST: Ohio State Parks On The Air
DATE & TIME: 1600-2400Z 11 Sep
BANDS/MODES: 80-2M, all modes
POINTS: 1 Pt. per contact
MULTIPLIERS: Ohio State parks worked (max. 74)
EXCHANGE: Park stations send: Call, Ohio, Park ID; non-park stations send: Call, State/Prov or DX
ENTRY CATEGORIES: Park: Single Op High, Low; Multi-Op High, Low; Non- park: Single Op in Ohio, Single Op outside Ohio
ENTRIES: 30 days Chuck Patellis, W8PT, P.O. Box 707, Parkman, OH 44080;
E-mail: W8PT@portcars.org
Web page: http://parks.portcars.org
Rules at: http://tinyurl.com/2efftaj

CONTEST: Arkansas QSO Party
DATE & TIME: 0800-2000 (Central) 11 Sep
BANDS/MODES: 80-2M SSB/FM/CW/Digi
POINTS: 1 Pt. SSB/FM; 2 Pts. CW; 3 Pts. Digital; 5 Pts. QSO with AR sta
MULTIPLIERS: None
EXCHANGE: AR sta's send RS(T) + County; All others send RS(T) + State/Country
ENTRY CATEGORIES: Single op, CW, Phone, Mixed, QRP, Low (<150W), High; Mobile; Multi op
ENTRIES: 1 Nov. ARKAN-AA5AR P.O. Box 9701, Fayetteville, AR 72703
E-mail: info@arkanhams.org
Entry form at: www.arkanhams.org/qsopartyentryform.pdf
Rules at: www.arkanhams.org/standrules.pdf

CONTEST: WAE DX
DATE & TIME: 0000Z 11 Sep - 2359Z 12 Sep
BANDS/MODE: 80-10M SSB
POINTS: 1 Pt. per QSO
MULTIPLIERS: WAE Countries
EXCHANGE: RST + serial #
ENTRY CATEGORIES: Single op - Low (<100W); Single op - High (>100W); Multi op
ENTRIES: 27 Sep Cabrillo or STF logs to: waessb@dxhf.darc.de
Handwritten log conversion at: http://contestsoftware.com/e/home.htm
Rules at: www.darc.de/referate/dx/contest/waedc/en/rules/

CONTEST: North American Sprint
DATE & TIME: 0000-0400Z 12 Sep
BANDS/MODE: 80/40/20M CW
POINTS: ! Pt. per QSO
MULTIPLIERS: States (no KH6!)/CA Provinces/NA Countries (USA and Canada do not count as countries!)
EXCHANGE: Both calls + Serial # + Name + QTH
ENTRY CATEGORIES: Single op – QRP (<5W), Low (5-100W), High (>100W)
ENTRIES: 7 Days Boring ARC 15125 Bartell Road Boring, OR 97009
E-mail: cwsprintmgr@ncjweb.com
Cabrillo logs (prefered) to: www.ncjweb.com/sprintlogsubmit.php
Paper log to Cabrillo converter at: www.b4h.net/cabforms/nasprintcw_cab.php
Rules at: www.ncjweb.com/sprintrules.php

CONTEST: NAQCC Sprint
DATE & TIME: 0130-0330Z 16 Sep
BANDS/MODE: 80-20M CW

POINTS: 1 Pt. non-member QSO; 2 Pts. member QSO
MULTIPLIERS: States/Provinces/Countries
EXCHANGE: RST + State/Province/Country + Member # (non-members give power)
ENTRY CATEGORIES: SWA (simple wire antennas); Gain
ENTRIES: 4 Days John Shannon, K3WWP, 478 E. High St., Kittanning, PA 16201
E-mail: naqcc33@alltel.net (Submit log as plain text, NO attachments!)
Rules at: http://home.windstream.net/yoel/sprint_rules.html
Autologger (preferred) at: http://naqcc.n4lcd.com/sprintlog.html

CONTEST: QCWA Fall QSO Party
DATE & TIME: 1800Z 18 Sep - 1800Z 19 Sep
BANDS/MODE: 160-UHF, QSONET, All modes
POINTS: 1 Pt. Phone; 2 Pts. CW/Digital
MULTIPLIERS: QCWA Chapters, States, Provinces, Countries; x3 HQ Stn W2MM QSO
EXCHANGE: Call + Yr licensed + Name & Chapter + State/Province/Country
ENTRY CATEGORIES: CW; Digital; Phone; Mixed
ENTRIES: 31 Oct. Bob Buus, W2OD 8 Donner St., Holmdel, NJ 07733-2004
E-mail: w2od@aol.net
Rules at: www.qcwa.org/2010-qso-party-rules.htm

CONTEST: South Carolina QSO Party
DATE & TIME: 1300Z 18 Sep – 2100Z 19 Sep
BANDS/MODE: 160M-UHF SSB/FM/CW/Digi
POINTS: 1 Pt. SSB/FM; 2 Pts. CW; 3 Pts. Digi; 300 Pts. QSO with N2ZZ or W4CAE
MULTIPLIERS: SC Counties (46 possible); power multipliers <5W x 5, <150W x 2, >150W x 1
EXCHANGE: SC sta's send serial # + County; All others send serial + State/Province/Country
ENTRY CATEGORIES: SC fixed, mobile; Non-SC sta's
ENTRIES: 20 Oct. CARC-SCQP Entry P.O. Box 595, Columbia, SC 29202
Cabrillo to: scqp@w4cae.org
Log forms at: http://carc.ham-radio-op.net/scqp/scqsolog.pdf
Rules at: http://carc.ham-radio-op.net/scqp/scqsoweb.shtml

CONTEST: Washington Salmon Run
DATE & TIME: 1600Z 18 Sep - 0700Z 19 Sep; 1600-2359Z 19 Sep
BANDS/MODE: 160-6M CW, Digital & SSB
POINTS: 2 Pts SSB; 4 Pts CW/Digital modes; 500 Pts. for QSO with W7DX per mode
MULTIPLIERS: non-WA sta's count 39 WA counties; WA sta's count States/CA Provinces/DXCC countries
EXCHANGE: RS(T) + QTH (WA sta's give County)
ENTRY CATEGORIES: Single Op High/Low/QRP; Multi Op; WA Mobile; WA Expedition; WA Club
ENTRIES: 31 Oct. Western Washington DX Club P.O. Box 395 Mercer Island, WA 98040
Cabrillo: salmonrun@wwdxc.org;
E-mail: salmonrun@wwdxc.org
Web page: www.wwdxc.org/salmonrun

CONTEST: North American Sprint
DATE & TIME: 0000-0400Z 19 Sep
BANDS/MODE: 80/40/20M SSB
POINTS: 1 Pt. per QSO
MULTIPLIERS: States (no KH6!)/CA Provinces/NA Countries (USA and Canada do not count as countries!)
EXCHANGE: Both calls + Serial # + Name + QTH
ENTRY CATEGORIES: Single op – QRP (<5W), Low (5-100W), High (>100W)
ENTRIES: 30 Days Jim Stevens K4MA 6609 Vardon Ct., Fuquay-Varina, NC 27526
E-mail: ssbsprintmgr@ncjweb.com
Cabrillo logs (preferred) to: www.ncjweb.com/sprintlogsubmit.php
Paper log to Cabrillo converter at: www.b4h.net/cabforms/nasprintssb_cab.php
Rules at: www.ncjweb.com/sprintrules.php

CONTEST: Run for the Bacon
DATE & TIME: 0100-0300Z 20 Sep
BANDS/MODE: 160-10M CW
POINTS: 1 Pt. non-member QSO; 3 Pts. FP member; 5 Pts. FP member different continent
MULTIPLIERS: States/Provinces/Countries
EXCHANGE: RST + State/Province/Country + FP #; (non-members give power)
ENTRY CATEGORIES: None given
ENTRIES: Online reporting only at: www.fpqrp.com/autolog.php
Rules at: www.fpqrp.com/fpqrprun.php

CONTEST: Straight Key Sprint
DATE & TIME: 0000-0200Z 24 Sep
BANDS/MODE: 160-6M CW
POINTS: 1 Pt. per QSO
MULTIPLIERS: States/Provinces/Countries
EXCHANGE: RST + QTH + Name + SKCC # (Non members give power + "W")
ENTRY CATEGORIES: None given
ENTRIES: 2 Days!
Score submissions at: www.skccgroup.com/sprint/sks/sks-submit.html
Rules at: www.skccgroup.com/sprint/sks/#RULES

CONTEST: CQ WW RTTY DX
DATE & TIME: 0000Z 25 Sep - 2359Z 26 Sep
BANDS/MODE: 80-10M RTTY
POINTS: 1 Pt. same country; 2 Pts. different countries, same continent; 3 Pts. different continents
MULTIPLIERS: Zones/States/VE call areas/ARRL-WAE countries/CQ zones
EXCHANGE: US/VE sta's give RS(T) + zone + state or CA call area; All others give RS(T) + CQ zone
ENTRY CATEGORIES: Single op - single band; single op - multiband; Multi op – all-band, Single XMTR, High; Single XMTR, Low; 2 XMTR's; Multi-XMTR's; (Single op sta's may use low power (>150W) if desired - will be scored as a separate category)
ENTRIES: 1 Nov. CQ WW RTTY Contest 25 Newbridge Road, Hicksville, NY 11801
E-mail: (Cabrillo preferred) - rtty@cqww.com
(Note; If unable to submit Cabrillo, contact contest director Ed Muns, W0YK, P.O. Box 1877, Los Gatos, CA 95031-1877
E-mail: w0yk@cqww.com for instructions on other methods)
Rules at: www.cqwwrtty.com/rules.htm

CONTEST: Texas QSO Party
DATE & TIME: 1400Z 25 Sep – 0200Z 26 Sep & 1400-2000Z 26 Sep
BANDS/MODE: All Bands, All Modes
POINTS: 2 Pts. SSB; 3 Pts. all other modes
MULTIPLIERS: TX Counties (254 possible); TX sta's count all other States/Provinces/DXCC
EXCHANGE: TX sta's send RS(T) + County (4-letters); All others give RS(T) + State/Province/Country
ENTRY CATEGORIES: Single op, Phone, CW, Mixed; Multi op; Mobile
ENTRIES: 31 Oct Texas QWO Party Committee 6 Sweetdream Place The Woodlands, TX 77381-6009
E-mail logs to: no5w@consolidated.net
Rules at: http://txqp.net/index.php?option=com_content&view=section&layout=blog&id=7&Itemid=53

DX Predictions
SEPTEMBER 2010

Maximum usable frequency from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 1934, Middleburg, VA 20118). The numbers listed in each section are the average maximum usable frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa-Kenya/Nairobi, Asia-Japan/Toyko, Oceania-Australia/Melbourne, Europe-Germany/Frankfurt, and South America-Brazil/Rio de Janerio. Smoothed sunspot number = 11.

*Chance of contact as determined by path loss is indicated as bold ***MUF** for good, plain MUF for fair, and in (parenthesis) for poor. UTC is hours.*

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SA
10	(10)	10	***18**	(8)	***15**
12	(16)	9	***15**	(13)	(13)
14	21	***12**	***13**	17	21
16	23	11	15	18	***26**
18	***24**	14	(12)	16	***29**
20	***23**	***20**	22	(13)	***30**
22	19	***21**	27	(9)	***29**
24	16	***20**	***30**	(9)	***28**
2	***15**	***18**	***30**	8	***23**
4	***13**	15	28	***11**	***19**
6	(12)	***13**	***25**	(9)	***16**
8	(11)	***11**	***21**	(9)	***15**

CENTRAL U.S.A.

UTC	AFRI	ASIA	OCEA	EURO	SA
8	(11)	(9)	***17**	(8)	***14**
10	(14)	8	***15**	13	***13**
12	21	11	***13**	***17**	***21**
14	23	(10)	16	***19**	***26**
16	24	(9)	15	***19**	***28**
18	***25**	(8)	(12)	***17**	***29**
20	***23**	15	22	15	***29**
22	19	18	27	(10)	***30**
24	***16**	18	***30**	9	***25**
2	***15**	(14)	27	8	***21**
4	***13**	(11)	***24**	8	***18**
6	(11)	(10)	20	***9**	***15**

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SA
7	14	(9)	***17**	***8**	***15**
9	16	***8**	***15**	13	***13**
11	***25**	11	***13**	***17**	***20**
13	***29**	(10)	17	***19**	***25**
15	***29**	(9)	(15)	***19**	***27**
17	***28**	(8)	(14)	***18**	***29**
19	***25**	(13)	(19)	***16**	***29**
21	***21**	17	26	(11)	***29**
23	***18**	18	29	9	***28**
1	***15**	(14)	27	9	***23**
3	***13**	(10)	24	8	***19**
5	***15**	(9)	20	9	***16**

VE EXAMS

As a service to our readers, WorldRadio Online presents a feature listing of those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is two months in advance. For example, if your group is scheduling an exam for December, please have the information to us by October 1st. *World Radio Online*, VE Exams, 25 Newbridge Road, Hicksville, NY 11801. List the location (city and state), any information examinees should have (advance registration, etc.) and the name of the person to contact for further information. Examinees should bring their original license (along with a photo copy), two forms of identification (at least one should be a photo), and required fee.

p/r pref. = pre-register preferred but w/i OK
p/r = pre-registration only-no w/i
w/i = walk-in only
w/i pref. = w/i preferred to p/r

CITY	DATE	CONTACT	NOTES
ARIZONA			
Mesa	3rd Mon	Steve KY7W, 480-804-1469, kj7wk@cox.net	w/i
Phoenix	4th Sat	Gary Hamman, 602-996-8148, K7GH@arrl.net	
ARKANSAS			
Harrison	2nd Sat	Bob, AJ5C, 870-365-3871, aj5c@cox.net	
CALIFORNIA			
Highland	9/18	Ed , WU6I, 909-864-0155, wu6i@arrl.net	p/r pref.
LaVerne	Last Sat	Frank, K6FW, 909-628-8661, k6fw@arrl.net	p/r
Long Beach	3rd Sat	Louise, N6ELK, 562-429-1355	p/r
Manteca/Tracy	4th Sat	David, N5FDL, 209-835-6893, n5dfl@arrl.net	p/r
Redwood City	Call	Al, WB6IMX@arrl.net, www.amateur-radio.org	w/i
Sacramento	Hotline!	916-492-6115, n6na@arrl.org	
Santa Rosa	Hotline!	Hotline-Recording 707-579-9608	w/i ok
Sebastopol	Hotline!	Recording 707-579-9608	
Sunnyvale	Visit Site	Gordon, W6NW, Sv@amateur-radio.org, www.amateur-radio.org	w/i
COLORADO			
Englewood	1st Sat	Dave, N0HEQ, 303-795-5718, n0heq@arrl.net, Commerical Exams also	p/r pref
FLORIDA			
Melbourne	1st Sat	John, AA8IS@earthlink.net, 321-412-2779	w/i ok
North Port	Call	Bill Norris, KC7TSG, 941-426-0214	w/ipref.
St. Pete	Call	Mark, NP3R, 727-528-0071	w/i pref.
Sanford	4th Sat	James, N4ZKT, 407-333-4245, n4zkt@bellsouth.net	
HAWAII			
Oahu Is.	Call	Lee, KH6BZF, 808-247-0587	p/r
IOWA			
Vinton	3rd Tues	Kenneth, N0EGV, 319-223-5739, n0egv@southslope.net	w/i ok
ILLINOIS			
Bolingbrook	3rd Sat	Dale, W9KHX, 815-723-3332	w/i ok
Burr Ridge	Any Day	Argonne ARC, W9DS, 630-986-0061	p/r
Lake in Hills	4th Sat	Jeffrey Dubin, N9MXT, 847-815-9407	
Roselle	2nd Tues	Sam, W9SFB, 630-894-0708, w9sfb@aol.com	p/r
INDIANA			
Richmond	Call	Mike, 765-439-4230, w1idx@arrl.net	w/i
South Bend	3rd Mon	Alan, NY9A, 574-232-6883	p/r
MICHIGAN			
Garden City	Call	Ken Wardell, AB8ZD, 734-421-7730, gsnapshot@att.net	w/i ok
MASSACHUSETTS			
Boston	9/13	Jim Clogher, N1ICN, 617-364-4658 n1icn@arrl.net	w/i ok
MINNESOTA			
Apple Valley	2nd Thur	Jim, N0OA, 612-384-7709, N0OA@arrl.net	p/r pref.
MISSISSIPPI			
Harrison Cty	1st Sat	Don, W5DJW, 228-868-5670, donw5djw@bellsouth.net	w/i ok

CITY	DATE	CONTACT	NOTES
NEVADA			
Stagecoach	2nd Sat	Jack, AC6FU, 775-577-2637 ac6fu@arrl.net	
NEW JERSEY			
Pennington	9/18	Don, AA2F, 609-737-1723, aa2f@arrl.net	w/i ok
Roselle	4th Sat	Gerry, AA2ZJ, 732-283-2795, aa2zj@arrl.net	
Winslow	4th Tues	Mark, K2AX, 609-820-1523, JTRA@comcast.net	
NEW YORK			
Bethpage	2nd Tues	Bob, 631-499-2214, w2ilp@optonline.net	p/r
Canandaigua	1st Wed	Squaw Island ARC, David A. Foster, 585-398-0216, D1161F@aol.com	w/i
Canandaigua	1st Wed	David Foster, 585-398-0216, www.siarc.us	w/i
Valhalla	9/9	Stanley, WA2NRV, wa2nrv@weca.org	
Yonkers	Call	Paul, AC2T, 914-237-5589, w2yrc@hotmail.com, www.yarc.org	w/i ok
OHIO			
Cincinnati	1st Sat	Dale, KC8HJL, 513-769-0789	p/r pref
Sandusky	Call	Luther, N8HC, 419-684-7864, n8hc@arrl.net	p/r
OREGON			
Astoria	Call	AA7OA, 503-338-3333	p/r
Bend	Weds	Joe, K7SQ, 541-385-3152	p/r
Lincoln City	1st Sat	Carl, w7li@arrl.net, 503-965-7575	w/i ok
McMinnville	Call	Mark, AC7ZQ, 503-843-3580	w/i only
Sisters	Call	Dave, N7TYO, 541-549-7831	p/r
Tigard	Call	John, KS0F, 503-626-7399	p/r
PENNSYLVANIA			
Erie	3rd Sat	Ron,KB3QBB, 814-833-6829, kb3qbb@arrl.com, www.wattsburg-wireless.us	p/r
Lebanon	3rd Sat	Wa3gpm@arrl.net	
Pittsburgh	9/11	Bob, N3LWP, 412-366-0488, n3lwp@verizon.net	w/i ok
PUERTO RICO			
San Juan	Last Sat	Hotline: 787-789-4998, prarl@prarl.org	w/i
SOUTH CAROLINA			
Charleston	3rd Wed	Robert Johnson, ae4rj@amsat.org; www.qsl.net/wa4usn/	w/i
Charleston	2nd Sat	Riley Stone, 843-832-9105, k4hyy@sc.rr.com	w/i
VIRGINIA			
Alexandria	2nd Sat	John, WZ4A, 703-971-3905, wz4a@arrl.net	w/i
Stafford	Sat	Bart, N3GQ, 540-373-4506, n3gq@arrl.net, www.qsl.net/semcomm	p/r
WASHINGTON			
Tacoma	2nd Tues	Radio Club of Tacoma, 253-759-2040, www.w7dk.org	
Vancouver	Hotline!	CCARC, 360-896-8909	p/r
Vancouver	Call	Vancouver ARC-Clark County, 360-892-5580 C. Wayne Schuler, AI9Q ai9q@arrl.net	w/i ok
WEST VIRGINIA			
Parkersburg	2nd Mon	Dana Pickens, WV8G, 304-422-6101	w/i, p/r
WISCONSIN			
Racine	1st Sat	Robert, W0WLN, 262-886-8551	w/i pref.

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The Theory Behind the Venerable Stub Antenna

Kurt N. Sterba

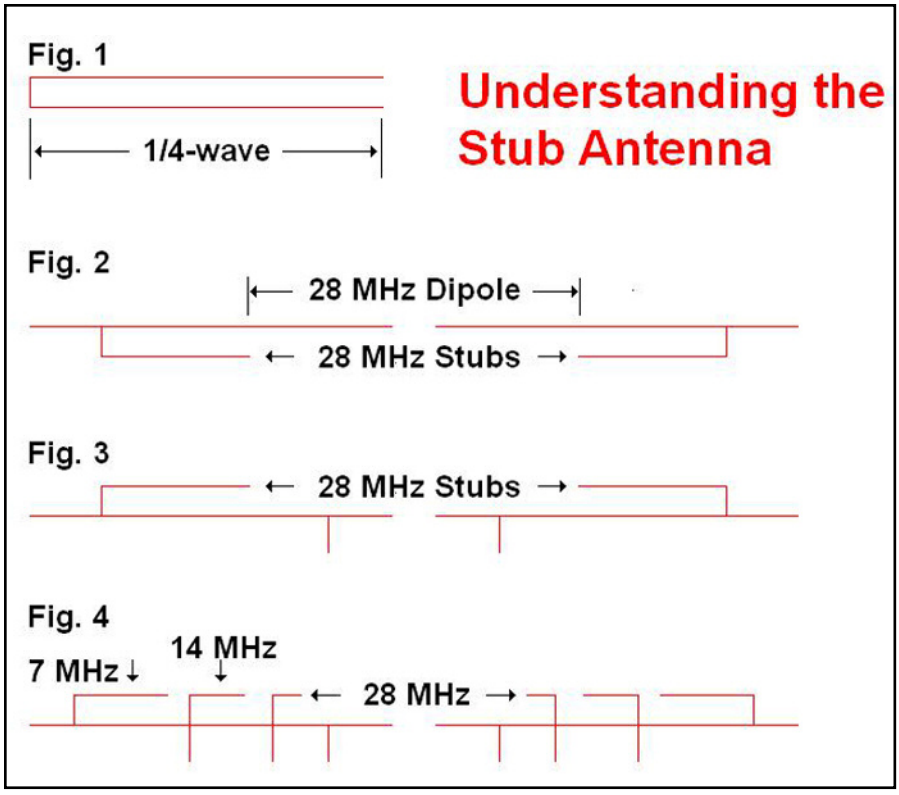
A stub is a length of transmission line that is connected at one end only. The other end is either left open or is shorted. The "connected" end looks like a capacitor or an inductor depending on the length of the line and whether the far end is open or shorted. Stubs that are exactly a quarter-wave, or multiples of a quarter-wave long are purely resistive at the "connected" end.

A quarter-wave stub looks like an infinite resistance (open circuit) if the far end is shorted or like a dead short if the far end is open. It's like a playground teeter-totter where, if one end is on the ground the other end is up in the air. The *ARRL Handbook* tells you this but it doesn't tell you why. Kurt will tell you why.

Imagine an RF wave going down the stub. When it hits the shorted or open end it is reflected back to the input end. We can't see or measure this but, as the wave travels, it produces a voltage across the line and current through the line. This we can measure.

Let's look at a shorted quarter-wave line (Figure 1). The current from the open end travels down the line and when it hits the shorted end it is reflected and travels back to the input. It has traveled 90-degrees down the line and 90-degrees back. So the forward and reverse currents are exactly out of phase and cancel each other. There is no current at the input. The voltage also is reflected when it hits the short but there can be no voltage at a short circuit so the reflected wave has to change phase by 180-degrees. Then the incoming voltage and the reflected voltage cancel each other – there is no voltage at the short. The wave also traveled back and forth so its total shift is 360-degrees. It is in phase with the input voltage so they add.

Using Ohm's law (R = E/I) we have the voltage divided by zero which, as you remember from grade school arithmetic gives R = infinite ohms (an open circuit).



This brings us to William Lattin, W4IRW's, 1950 stub antenna patent. The version he described in December 1960 *QST* can be seen in Figure 2.

In the drawing we see half of the stubs and their shorted ends. The main antenna wire forms the other half of the stubs. The center section is a half-wave dipole on 10 meters. There is a shorted stub on each end that looks like an open circuit so the dipole doesn't know there is anything else to the antenna. An extra length of wire has been added to the shorted ends of the stub.

On some lower frequency the stub is shorter than a quarter-wave and looks like an inductor. Now with the 10 meter dipole, the stub inductor and the added wires together resonate on a lower frequency, say 40 meters. Now we have a two band dipole with no traps. Nice!

Unfortunately there is a problem: The lengths of the 10 meter dipole and the two stubs add up to a half-wave on 20 meters. Add in the reactance of the stubs and the resulting antenna resonates below 20 meters. So you can't make a 10/20-meter antenna. But there is a way around it. Look at Figure 3.

The ends of the 10 meter dipole are bent down like in a Moxon beam. The dipole still resonates on 10-meters but the lower frequency doesn't see the hanging-down parts. It just sees a shorter antenna. Now we can make one where the lower frequency is just half the upper, a 10/20 antenna, for example.

You don't have to stop with just two bands. Figure 4 shows Lattin's four bander.

It resonates on 29 MHz, 14.3 MHz, 7.2 MHz, and 3.9 MHz. To get construction details and dimensions you can Google patent number 2,535,286.

So what does Krusty Olde Kurt think

of these antennas? On the plus side they should work just as well as trap multibanders. The stubs are simpler than traps and should be lower loss. The stubs will change little with temperature. Their major drawback is the inability to resonate at much less than half their upper frequency. This probably is why you don't see the principle in use in commercial antennas. So why does Kurt bring the principle to your attention? It's a little known method but you should have it in your arsenal of ways to build antennas. You never know when it might come in handy.

Kurt's Big Goof

A couple of months ago Kurt received a letter from Harald Cirs, YL3BZ, in Latvia that explained that it is always best to tune your antenna right at the antenna. Kurt made up an example that showed that it is almost as good to tune it from the shack. His example was a 40 meter dipole with 80 feet of coax going to the shack on 40 meters with nearly 1:1 SWR – very little loss. On 20 meters with the antenna at 75 ohms, also very little loss.

Several astute readers pointed out that on the second harmonic at 20 meters the antenna impedance would be much higher than 75 ohms. They were right! Probably 2,000 ohms at resonance. This would give an SWR of 40:1 with a loss on the 9913 coax of 4.4-dB – 100 watts in and you get 36 watts out.

With a tuner right at the feed point your loss would be only 0.35 dB. – 100 watts in and 92 watts out. Of course if you had to put your tuner on the ground 30 feet below your loss would be 2.3-dB – 100 watts in, 59 watts out. Still better than going direct.

So YL3BZ is right, but Krusty Olde Kurt will still keep his tuner in out of the rain and, if he's worried about the loss would use ladder line instead of coax to feed the antenna. The loss there is only 0.2-dB – 100 watts in, 95-watts out. Better than a tuner at the antenna fed with coax. Kurt wasn't far off after all. But his thanks to the readers for spotting his error.

Kurt welcomes questions of general interest from readers and will answer them in his Kolumn. Write to him at: WorldRadioOnline@gmail.com.