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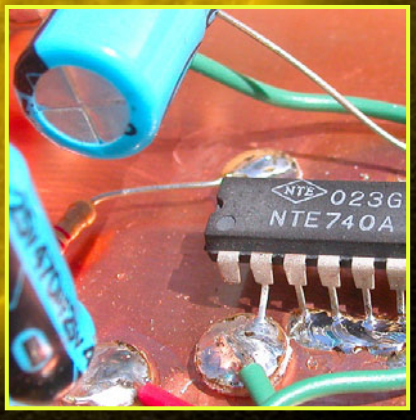

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Three Radio Amateurs and a Club to Be Honored at Dayton Hamvention®

Three amateur radio operators "who have made significant contributions to the Amateur Radio Service," will be honored guests when Dayton Hamvention® 2010 opens in Hara Arena on May 14.

In addition, a Club of the Year will be honored in keeping with the 2010 convention's theme: *Amateur Radio Clubs Worldwide: The Lifeline*.

Recipients of this year's Hamvention® awards are:

Special Achievement – Dick Ross, K2MGA, for his "excellent work over the past number of years on CQ magazine," officials said in a news release. Dick has worked for CQ for 50 years. Now as Publisher, he oversees four magazines (*CQ, CQ VHF, Popular Communications and WorldRadio Online*), the CQ book and video library and an extensive award and contest program.

Technical Excellence – Simon Brown, HB9DRV, for "the invention and development of Ham Radio Deluxe."

Amateur of the Year – Jim Stafford, W4QO, for "50 years of service to amateur radio and his support for public service and unending efforts to recruit and develop hams of all ages."

Club of the Year – North Fulton Amateur Radio League, NFARL, North Fulton, GA, "serving the greater Atlanta area, the State of Georgia and the U.S. with emergency services, training and the preparation of amateur radio in general."

"Choosing the finalists was a difficult process due to the number of fine nominations," said Frank Beafore, chairman of the Awards Committee.

This year, an additional award category was added – Club of the Year. This award honors a ham radio organization that contributes to the good of amateur radio.

"Although we narrowed our club choice to North Fulton, GA, we had a number of deserving candidates," Beafore said. "The winner of this year's award is certainly a great example of the thousands of clubs and organizations around the world perpetuating our avocation."

A dinner is planned to honor the 2010 Hamvention Award winners.

Whew! AO-51 Has A Close Encounter of the Scary Kind

In the wee hours of March 1, a data-gathering microsatellite had "a potentially dangerous encounter" with the AMSAT-OSCAR 51 amateur radio satellite about 500 miles above the Earth's surface, according to a report from the ARRL.

"We were all relieved" that AO-51 is A-OK, AMSAT-NA Vice President of Operations Drew Glasbrenner, KO4MA, said, " but it reinforces how tenuous our satellite presence is, and the fact that we should be constantly working and fundraising to build and launch new satellites."

An alert of the close approach of the crossband FM repeater amateur satellite with Formosat 3-D was sent by the U.S. Joint Space Operations Center. The 3-D is " part of a constellation of six remote sensing microsatellites that collect atmospheric data for weather prediction and for ionosphere, climate and gravity research," the report said.

"The estimate was that they would come within 2,900 feet overall, but only 130 feet radially," Glasbrenner said. "I'm visualizing that scenario as one car merging on a highway at 17,500 mph with another car 2,900 feet in front and 130 feet to the left or right. Scale the 17,500 mph to 70 mph and the distances in the analogy would be 12 feet in front and 6 inches abreast, just to put the velocity and distances in perspective." – *ARRL*

'Project Runway' Designer Joins ARRL PR Committee

A fashion designer and TV personality also known for her amateur radio articles and videos for MAKE magazine has become a member of the American Radio Relay League's Public Relations Committee.

Diana Eng, KC2UHB, who appeared in the Bravo reality series *Project Runway*, writes on her Web site she's " very excited to join (the committee) because I want to help connect the maker / hacker community to the ham community . . . It's hip to tinker."

"Ham radio operators were the original makers and hackers," she writes. " And I feel like makers and hackers could learn a lot from an organization where members are building their own portable devices that can send messages or remote control other devices around the world and through outer space." – *WRO*

Operators Take EmComm Role After Chilean 'Quake

Radio amateurs in Chile quickly sprang into action – initially on VHF, then on HF net frequencies – after an 8.8 magnitude earthquake rocked the nation Feb. 27, according to Radio Club de Chile President Dr. Galdino Besomi, CE3PG.

At the same time, operators in Hawaii were activated on reports of a possible tsunami.

Speaking by telephone March 1 with IARU Region 2 President Reinaldo Leandro, YV5AMH, Dr. Bensomi said an emergency net was immediately activated across Chile and that Radio Club de Chile members were " actively working in close coordination with civil and military authorities. Also that requests (regarding) health and welfare news about people in the affected areas is one of the main activities occupying the Chilean radio amateurs these days," according to a report on Amateur Radio Newsline ™.

The earthquake " triggered a tsunami alert from the West coast of North and South America to as far away as New Zealand, Australia and the nations of the Pacific Rim."

Some 60 Hawaiian hams participated in a tsunami radio net that operated throughout the island state. More than two

dozen real-time reports from observers around Hawaii were relayed simultaneously to the State Emergency Operating Center and the four county EOCs. – *AR Newsline* ™

FCC Gathers Comments On AHA Waiver Request

The Federal Communications Commission in March issued a Public Notice seeking comments about whether it "should grant (the American Hospital Association's) request for a blanket waiver . . . to permit amateur operators who are hospital employees to participate in emergency drills that are conducted by hospitals for accreditation purposes and that are not government-sponsored," according to the ARRL.

Section 97.113(a)(3) of the Commission's rules specifically prohibits amateur stations from transmitting communications " in which the station licensee or control operator has a pecuniary interest, including communications on behalf of an employer."

The FCC set April 2 as the deadline for comments. In February, the AHA filed a request with the FCC for a blanket waiver "to permit hospitals seeking accreditation to use amateur radio operators who are hospital employees to transmit communications on behalf of the hospital as part of emergency preparedness drills." – *ARRL Letter*

Alinco Sales and Service Shifts to GRE, Inc.

GRE, Inc. and Alinco, Inc., have announced a marketing agreement in which GRE America "will distribute, offer customer support, and provide warranty and non-warranty repair for radios and amplification equipment under the Alinco brand for all of North America," according to a report on Amateur Radio Newsline ™.

Alinco manufactures a wide range of products for the radio amateur.

"Under the agreement, GRE, Inc. will be the exclusive distributor of Alinco products in Canada, USA, and Mexico and will handle all warranty service and parts orders," the report said. " GRE will also provide out-of warranty service as will other currently authorized Alinco service centers." – *AR Newsline* ™, *GRE*

HAMFESTS & SPECIAL EVENTS

MAY

CALIFORNIA - Valley of the Moon Amateur Radio Club, W6AJF, ARRL Hamfest - Saturday, May 1, 8 a.m. to noon. Sonoma Valley Veterans' Memorial Building, 126 First St. West, Sonoma, CA (one block north of central Sonoma Plaza). Admission free. Walk-in VE exam session with registration at 9 a.m. Swap meet with indoor / outdoor spaces available. Sellers set up at 7 a.m. Breakfast ($6) from 8 to 10 a.m. Map and printed directions available with business size SASE to VOMARC, 358 Patten St., Sonoma, CA 95476, or visit http://vomarc.org/. Click "Hamfest" link. Talk-in on 145.35, -600, with a PL of 88.5. Information: Darrel, WD6BOR, (707) 996-4494; wd6bor@vom.com.

MASSACHUSETTS - W1ACT/P Team HAMCOW / Fall River ARC, Martha's Vineyard Island at the Gay Head Lighthouse - IOTA NA046, USI-MA005s, NEQP, 2000Z May 1 - 0500Z May 2, 1300Z - 2000Z May 2. CW: 3.540, 7.035, 14.040, 21.040, 28.040 MHz; SSB: 3.850, 7.180; 14.280, 21.380; 28.380 MHz. QSL via N1JOY SASE Only. http://hamcow.net or n1joy@arrl.net.

MICHIGAN - Wexaukee Amateur Radio Club's 48th Annual Cadillac Swap, Saturday, May 1st at the Cadillac Junior High School, 500 Chestnut St., Cadillac. Admission $5, tables $10. Talk-in 146.98 (no PL). Commercial ventors and VE Session info and reservations contact Alton McConnmell, 231-867-3774, nu81@yahoo.com, Wexaukee Amateur Radio Club, POB 163, Cadillac, MI 49601.

NEW YORK - Special event station K2BSA/2, sponsored by Chenango Valley Amateur Radio Association, Unadilla, NY. Start Time: 10 a.m. - May 14 2010 EDT; End Time: 4 p.m. - May 16 2010. Boy Scout Troop 1 is celebrating 100 years of unbroken charter with the Boy Scouts of America - the only Troop 1 in the U.S. to have accomplished this. Certificate is being issued. QSL information listed on QRZ. QSL Manger - Tony Masi, N2GVB, 3289 State HWY 206, Bainbridge, NY 13733-3114. For more information: amasijr@stny.rr.com.

SOUTH CAROLINA - The Blue Ridge Amateur Radio Society's 48th Annual Hamfest, Saturday, May 1st at the Piedmont Interstate Fairgrounds, Spartanburg, SC. 700 - 900 participants are expected. For more information visit www.upstatehamfest.com.

JUNE

CALIFORNIA - N6R - 1800Z June 25 to 1800Z June 27, commemorating the late President Ronald Reagan and Mrs. Nancy Reagan. Grounds of the President Ronald Reagan Presidential Library & Museum, Simi Valley, CA; Ventura Co. Amateur Radio Society (VCARS); joined by Simi Settlers ARC, Ventura Co. ARC., and Conejo Valley ARC. Frequencies: 3.850, 7.185, 14.280, 21.042, 28.369 MHz. Send QSL and SASE to VCARS, c/o Peter Heins, N6ZE, 1559 Norwich Ave., Thousand Oaks, CA, 91360. More information: www.qrz.com/db/N6R and www.vcars.org.

PENNSYLVANIA - BreezeShooters Hamfest 2010 & Computer Show, Sunday, June 6th, 8 AM to 3 PM, Butler Farm Show Grounds, Pittsburgh, PA For more information visit www.breezeshooters.net

TENNESSEE - Knoxville Hamfest & Electronics Exposition, Saturday, June 12, Kerbela Temple, Knoxville, TN. RACK - Radio Amateur Club of Knoxville VE exams. Tickets $7, inside tables $20, outside tailgating $5, 8:30 AM to 4 PM. Talk-in 53.770, 147.300, 224.500, 444.575. Contacts: Lou Dreinhoefer, WB3JKQ, wb3jkq@arrl.net or David Bower, K4PZT, d.bower@ieee.org . Lastest information: http://www.W4BBB.org.

Click here to have your hamfest or special event listed!

WorldRadio ONLINE

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ON THE COVER: The sun is showing signs of life. Five active regions on its surface were observed in an extreme ultraviolet photograph taken Dec. 22, 2009 by the Solar and Heliospheric Observatory. *(Courtesy of SOHO at spaceweather.com)*

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EDITOR'S LOG

Finally . . . It's On To Dayton

For the first time in more than 45 years as a radio amateur, it's springtime and I'm not wishing I could be going to the Dayton Hamvention®. Looks like this year I'll actually make it. Dreams do come true.

WorldRadio Online will be part of a contingent at a booth in the main arena along with *CQ Amateur Radio, CQ VHF* and *Popular Communications* magazines – all publications of CQ Communications, Inc. What a thrill.

Things kick off Friday and wrap up Sunday, May 14-16. I can hardly wait.

Somehow over the last four-and-a-half decades, work, family commitments or a dwindling bank account have managed to get in the way of a May pilgrimage to Ohio. But not in 2010. I can't remember having this kind of anticipation since waiting for the mailman to deliver my Novice ticket in 1965.

If you're attending the Hamvention®, please stop by and say hello. It's important for us to get to know our readers and I can't think of a better way than having an " eyeball QSO" on the floor of Hara Arena.

Meantime, if you're not able to attend, we invite you to scroll to Page 8 of this edition where you'll find a link to streaming video from the Hamvention® provided to us by Tom Medlin, W5KUB. During convention weekend, click on the image and you'll be whisked away to Dayton – albeit virtually. Please fasten your seatbelt, just the same.

You're Invited: *WRO* Live Internet Chat - Sunday, May 2

Speaking of interaction, we're really thankful to be able to host a live monthly chat with readers through the ***WorldRadio Online*** blog at http://www.WorldRadioOnline.blogspot.com.

This time it'll be **Sunday, May 2**, at **8 p.m. Eastern** time. Please mark your calendar and join the conversation.

Our first session was in early April and radio amateurs from around the country and the world were invited to take part. It's your chance to let us know what you think about the magazine, topics you'd like to see covered and to give us suggestions for ways to make ***WRO*** more useful to you. You'll also be able to see what others have to say.

If you missed April's session, here's how the monthly chats work:

Go to the ***WorldRadio Online*** blog where you'll see the *Cover It Live* box – our portal to the real time chat. When the session goes live, type in your question, comment or suggestion, submit it and it will appear in a chat box for everyone to see. I'll comment and you'll be able to comment on others' postings, as well.

Sure hope to see you there.

Remembering Pete Hoover, W6ZH

The obituaries for Herbert " Pete" Hoover III, W6ZH – who became a Silent Key in February – paint a picture of a dedicated radio amateur who distinguished himself in so many ways.

True, the late grandson of the 31st U.S. President held positions on a local level with the Pasadena (CA) Radio and Southern California DX clubs. Nationally, he served in several capacities with the ARRL. Internationally, Pete worked tirelessly with the American Red Cross. Looking into space, W6ZH – along with EIMAC's Bill Eitel, W6UF, (SK) – set up a fund-matching program to encourage contributions to the amateur satellite program.

But I remember Pete as a guy whose boyish enthusiasm and dry wit brought a smile every time I was around him. We first met on Field Day many years ago. Sitting at a picnic table in the mountains north of Los Angeles, he gave me a blow-by-blow description of the antenna tuner he'd been building. It was pure poetry. We stayed in touch ever since.

Pete was an avid " homebrewer," a meticulous craftsman and a top notch radio operator, often at low-power QRP levels. I'll remember our many radio contacts and miss the sound of W6ZH's superb fist – one I came to know, appreciate and envy.

– Richard Fisher, KI6SN

WorldRadio Online

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Join Us Live At The Dayton Hamvention®

Link From Here to W5KUB's Streaming Video to Catch the Action There

By WRO Staff

A WA5KUB.com banner at the W5KUB booth boldly advises visitors where to find the action on the Internet. Click the photo to link to the Dayton Hamvention® streaming video.

If can't go to the 2010 Dayton Hamvention®, WorldRadio Online is linking to streaming Internet video from Hara Arena and beyond – the next best thing to being there.

Through the technology, ingenuity and generosity of Tom Medlin, W5KUB, just click on the photo image above and you'll be directed to his Web site (http://wa5kub.com) to see the show. *Live!*

Medlin, formerly WA5KUB, started the Dayton broadcast eight years ago. "At that time we streamed video-only from the moment we pulled out on the road" and continued sending it during the 550 mile drive from Memphis to Dayton, he said. "Oh, it was live, with simple equipment and we didn't have the capability to serve but only 10-20 viewers at a time. It was a good test and it did work."

For Medlin, the next step was to make it better, including adding audio and much more.

"Four years ago we expanded the equipment and bandwidth to ensure that we could make available – to all hams around the world – the opportunity to watch and join in on the fun," he recalled. "The wa5kub.com video website contains a video window which shows our live transmissions in Windows Media format. It also includes a Java-based chat room where hams around the world can chat real time with us or each other."

"We have viewers in over 100 countries," Medlin said. "Normally we might see several hundred logged into the chat room. There are another couple hundred just watching the video feed and not chatting. So our viewer base averages around 400 people watching at the same time."

Medlin says the chat room does not require users "to have any special knowledge of chat rooms or special software to get on. It's as easy as typing in your call letters or name and hitting enter. Another thing which we added is a real time APRS map at the bottom of the page which shows the real time location (of the video camera) on a moving Google map. Now we don't have to tell everyone where we are every couple minutes." (For those hams familiar with IRC, you can also use your own IRC client for the chat room if you'd prefer.)

Medlin says he and his crew go to Dayton in two vehicles, although years ago the convoy had as many as five or six.

W5KUB has run into some familiar characters during the production of his live streaming videocast in association with the Dayton Hamvention®.

Tom Medlin, W5KUB, with a video camera attached to his helmet and microphone in hand, conducts an interview which is streamed live over the Internet.

"There are approximately six (people) in our group," Medlin said. "The broadcast crew accounts for only two, maybe three people some years. We do have support techs – who don't attend the Hamvention – that help us to control and solve problems on the entire system remotely."

During the Hamvention®, "we are live for five days," Medlin said. "We go live on Wednesday morning May 12, at approximately 1300 UTC and try to broadcast around the clock until we get back home on Sunday, May 16 around 2300 UTC."

People will be able to follow the camera's every move. "They will see the road, scenery, recognize landmarks and cities," Medlin said. "They will see us get gasoline, eat lunch, take rest breaks," just to name a few things to be tuned-in for.

"On Thursday morning we will be live from the flea market and will be broadcasting our crew as we set up our flea market spaces," Medlin said. "On Thursday afternoon we might take a tour of the Air Force Museum, if time permits. People see exactly what's going on. They see the normal (Dayton) May weather. In past years we have been in floods, snow, hail, high winds . . ."

During the Hamvention®, Medlin will also stream video from the dealers' area.

"In the past we have interviewed people that are known in the ham radio community" – such as Chip Margelli, K7JA, who was on *The Tonight Show with Jay Leno* in May 2005 in a showdown of CW vs. text messaging. Medlin's also talked with astronauts Richard Garriott, W5KWQ, and Owen Garriott, W5LFL, and officials from the FCC. "We hope to broadcast the D-Star meeting on Friday night," Medlin said.

"For the second year now, we will be giving thousands of dollars worth of prizes away to viewers," he said. "To win, all they have to do is be logged-in to the chat room and when we call their name, they have to claim their prize." Prizes this year range from G5RV antennas, Heil Boomsets, ham hats, baluns, and noise canceling speakers to QSL cards, Daiwa wattmeters, Comet antennas, weather stations, LDG auto tuners and amateur radio publications. "You can see the complete list at http://tmedlin.com/2010prizes.html," Medlin said.

How does it all happen? "We run Microsoft Encoder 9 on a laptop and connect a camera which then becomes the raw video and audio feed," Medlin explained. "We use various ways to get that feed sent out – which include various carriers' broadband wireless cards, or other carrier services in the city, and we have even tethered it to a mobile device like a Blackberry.

"This video feed is then sent to Miami where it hits our dedicated video server," he said. "We have made arrangements for unlimited bandwidth from the server out to the world of viewers. This is the key of making it work so well. Without this bandwidth it would be very limited."

Viewers can even join Medlin on his trip home to Tennessee. Last year, he said, "we were stopped (by authorities) north of Nashville doing 86 in a 70 mph zone. The trooper was going to throw the book at us, but while talking to us she had to rush away to catch someone who passed our stopped cars dangerously. She said 'I will be back.'

"Well, we sat there a long time," Medlin said. "People in the chat room from around the world were taking up a collection to bail us out. To make a long story short, after an hour we called the police" to find out what was going on. "The dispatcher told us (the officer) said 'we were free to go.' What a lucky day."

Editor's note: The wa5kub.com site is up year around. W5KUB (formerly WA5KUB) said when it is not live at a hamfest, the site broadcasts recorded videos of past events related to amateur radio. People visit and chat on the site 365 days a year.

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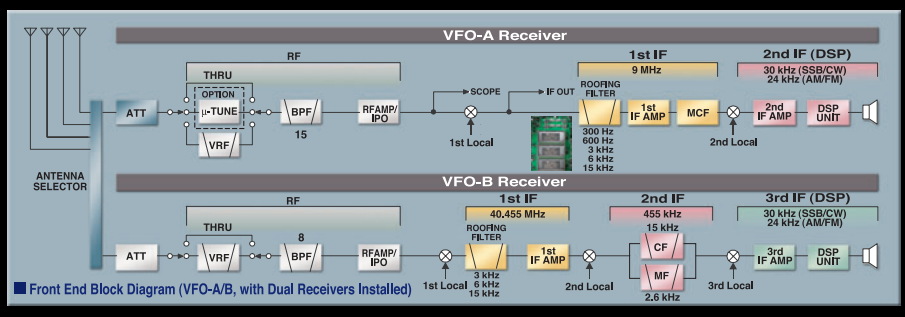

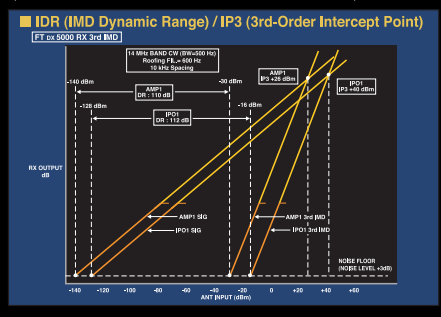

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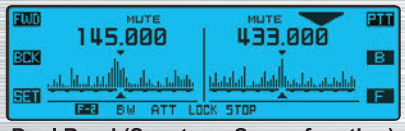
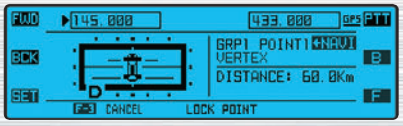


Dual Band (Spectrum Scope function)



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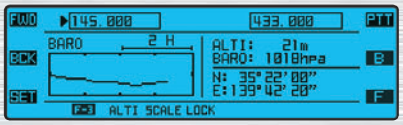

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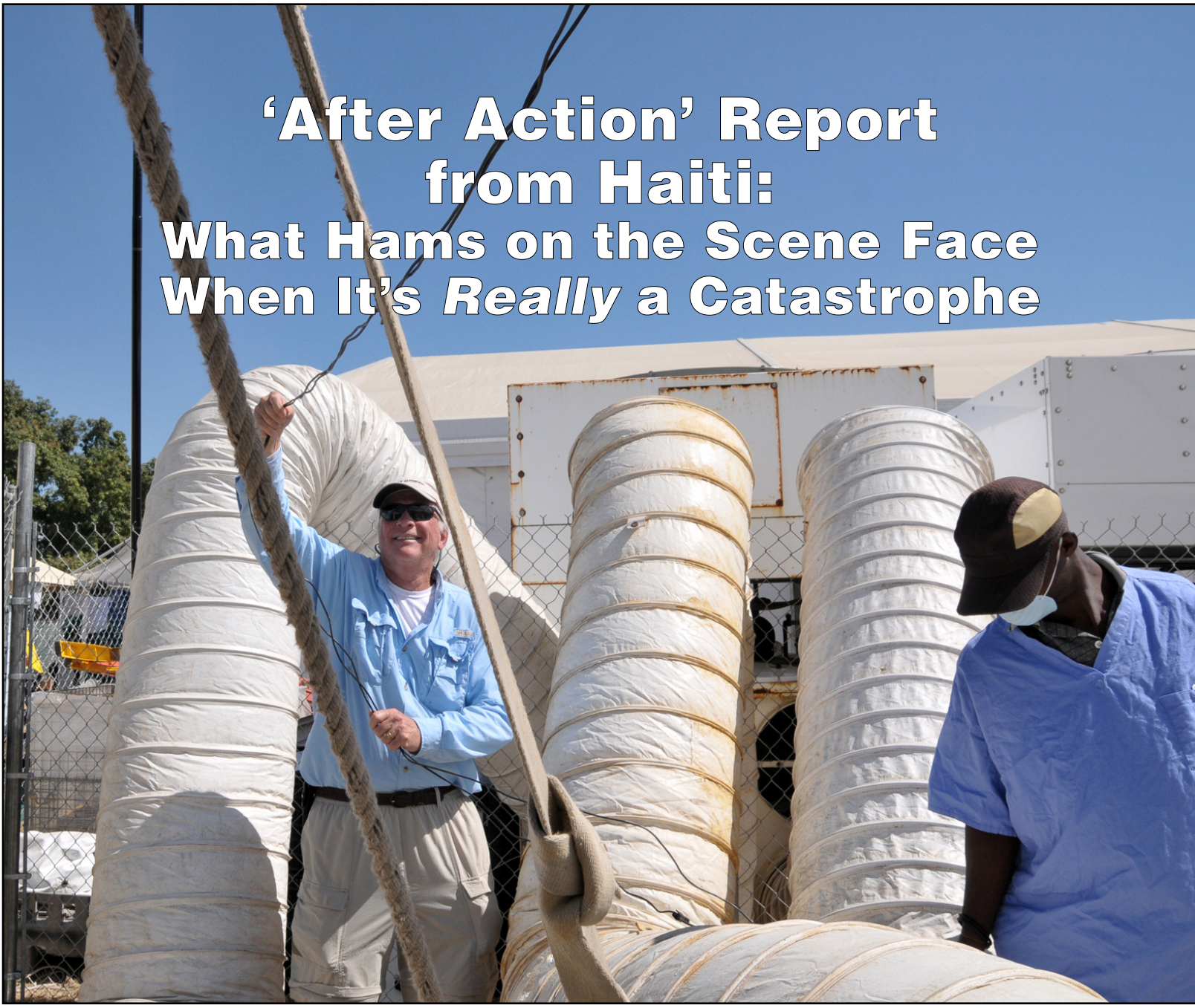
‘After Action’ Report from Haiti: What Hams on the Scene Face When It’s *Really* a Catastrophe



Jack Satterfield, W4GRJ/AFA4DG, installs a folded dipole antenna over the portable ventilation system at the Project Medishare field hospital operated next to Port-au-Prince airport by the University of Miami Hospital.
(Courtesy of Louis Cruz, N4LDG, © 2010)

NEWS ANALYSIS

By Bill Sexton, N1IN/AAR1FP

Ron was in the operating tent at a surgeon’s elbow, his flashlight beamed into an incision the doctor was probing.

Gary had organized the search for blank paper after the field hospital’s supply ran out. Now he was combing the city for spare military medics after a surge of desperately ill patients overwhelmed the ICU.

Jack changed the electrical plugs on European medical equipment to fit American sockets and repaired the medics’ handheld transceivers, then organized a VHF net linking the medical facilities.

Hardly the usual fare of emergency communicators, you say. But it was all in a day’s work for the hams who rushed to Port-au-Prince after the Jan. 12 earthquake. All in an *18-to-20-hour* day’s work.

The singular adventures of these three volunteers can be related here because the Military Auxiliary Radio System (MARS) requires daily “After Action” reports (AARs). Ron, Gary and Jack are all MARS members and, while they came to Haiti under the auspices of different volunteer agencies, they were able to use their MARS capabilities to provide services that might otherwise have been difficult or impossible. They’re pioneers.

This article is about their insights. I wish there were space to cite the epic contributions of all the hams who took part – both in Haiti and in their home countries – and the numerous aid providers that the hams assisted, too. There is so much to learn

The Big Picture: Amateurs and Organizations Team to Make A Difference

Author's note – It may have been the most feverish networking American hams ever experienced. Everyone wanted to help.

The problem: No contingency plan existed for overseas relief operations. No agency had authority to coordinate the effort. There wasn't even an official call for help from the pulverized capital of Port-au-Prince.

Somehow, the amateur community and charitable organizations and Haitians pulled together and did the job.

Radio teams from the U.S. and elsewhere rotated in and out of the earthquake zone, mostly for one-week round-the-clock stints, sponsored by a number of charitable and official organizations. It may never be possible to record the complete scope of amateur participation. The accompanying article attempts to portray at least its intensity, through the stories of three hams and two such teams.

The University of Miami Hospital (UMH) and the WX4NHC amateur radio club mobilized the first crew on the scene. The tented UMH field hospital was said to be the largest (Israel's the next).

UMH had operated clinics in Haiti starting in 1994, all destroyed in the quake. WX4NHC was celebrating 30 years of disaster service from its "shack" at the National Hurricane Center. A whirlwind of a jumpmaster named Julio Ripoll, W4DR, presided at the vortex of its aid project. In the club he was a founding member and had been an officer throughout its existence. Julio mustered available volunteers from his ARRL and MARS contacts and organized their travel. At UMH, he was a Miami alumnus and now staff architect. He helped marshal the radio supplies and transport. Julio was the General Eisenhower of this D-Day.

Nassau University Medical Center (NUMC) on Long Island, NY, had no wide history of foreign outreach, just a considerable number of Haitian-descended patients and staff members, including Dr. Lambros D. Angus, trauma director of the big, 530-bed hospital. NUMC also had an avid ham with years of local EmComm experience, Ron Tomo, KE2UK/AAT2BC, the Chief Information Officer. When Ron learned of CEO Art Gianelli's appeal for earthquake aid funds, he immediately offered his station to handle health and welfare messages. But when Dr. Angus put together an aid station team for the Islamic Medical Association of North America (IMANA), Ron pressed to accompany them. Despite a physical challenge, he was accepted, bought a trunkload of VHF equipment to distribute in Haiti, and was on his way.

If Haiti's agony brought tears to any readers' eyes during the immediate TV coverage, they will understand how researching such men's deeds affected this writer more than once. Try to imagine the depth of these amateurs' emotions in the midst of it.

- Bill Sexton, N1IN/AAR1FP,
MARS columnist, WorldRadio Online

Ron Tomo, KE2UK/AAT2BC, (white cap) demonstrates VHF operation to local staff in a field trauma unit at a Port-au-Prince amusement park. The station used the Army MARS call sign AAN2ZN. *(Courtesy of Tushar Kapoor M.D.)*

about events we pray may never happen, but might – a terrorist nuclear incident, say, or massive eruption of toxic gas from an urban chemical plant.

Jack Satterfield probably knew better than most what to expect in Haiti. He'd operated in shattered Bay St. Louis, MS during Hurricane Katrina's immediate aftermath. In terms of the suffering and devastation he witnessed, however, there was no comparison.

"This wasn't a Katrina situation, bad as that was," Satterfield told fellow hams at a Florida hamfest when he got home. "This was like Hiroshima after the atomic bomb."

Of all the lessons brought home from Haiti, understanding the distinction between disaster and catastrophe could prove the most important. The U.S has never suffered this kind of catastrophe on its own soil. But now it has witnessed one close by.

Lots to learn. Try to keep this in mind: *More than 200,000 killed in one day*!

Learning from Haiti

It's safe to surmise that FEMA, the U.S. military, and hospitals from coast to coast will be absorbing Haiti's grim lessons for months to come. Here are some of the issues that struck me while reading dozens of AARs, trading e-mails with hams on the front line, and revisiting TV's stark, unedited scenes of suffering in live video. Entirely this writer's opinion, obviously.

- Won't a true catastrophe level the playing field among nations? With its infrastructure destroyed, an advanced society possesses little advantage over a primitive one, perhaps even a disadvantage. So, isn't the Haiti experience directly applicable to U.S. "worst case" planning despite the disparities of wealth?

On a break from his EmComm duties in Haiti, Ron Tomo, KE2UK/AAT2BC, assists a surgeon by holding a flashlight during treatment of an earthquake victim's injured leg. *(Courtesy of Tushar Kapoor M.D.)*

A helicopter flies into the Marine Corps Base near Bojeux Parc amusement park, which had become a field trauma unit. Nassau University Medical Center (Long Island, NY) had two doctors, a nurse, and its information officer supporting the Islamic Medical Association of North America's outpost there. *(Courtesy of Tushar Kapoor M.D.)*

"We have taken on an operational role which I don't think anyone anticipated. Our ability to communicate across and with all agencies is proving more valuable every day. Lives have been saved which possibly may not have happened without the ability to communicate directly with the USNS Comfort . . . The list goes on and on . . . "

– Jack Satterfield, W4GRJ/AFA4DG, Port-au-Prince AAR

- Will governmental authority collapse the way it did in Haiti? With systematic communication temporarily wiped out and essential personnel among the casualties, what justifies any assumption that the civil "chain of command" will function any better than Haiti's?

- If highways, bridges, city streets and airport runways are blocked, how can rescuers arrive in time to save large numbers of lives, even if pre-designated relief forces and government stockpiles of food and water have been kept in readiness? More likely, won't initial recovery be entirely dependent on the initiative, ingenuity and grit of survivors *within* the destroyed area – for days if not for weeks?

And if that is so, won't the surviving ham population – assuming there are survivors – take on vastly magnified importance in "worst case" planning? Their widely dispersed stations and proven operating skills will be vital, but so will the energy, flexibility and inventiveness displayed by our amateurs in Haiti.

The Port-au-Prince Story

This account focuses on the experiences of three American hams who were among the first on the Haitian scene. They are interoperability personified – their presence here sponsored by two different organizations and funded by numerous donors.

Ron Tomo, 57, of Army MARS (KE2UK/AAT2BC), is a hospital information technology executive from Long Island, N.Y.

Gary Mentro, 66, (N6OS/NNNØEKB) of Navy-Marine Corps MARS, is a retired police officer now living in Dade City, FL.

Jack Satterfield, W4JGR/AFA4DG, a 61-year-old retired nuclear engineer and corporate executive in that field, is an Air

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"I know Ron, Gary and myself and all the operators are very grateful for the opportunity to be in a position to have helped. No thanks are necessary. We have received those thanks back many times over with the smiles on the faces we were able to help." – *Jack Satterfield W4JGR/AFA4DG*

Force MARS member and currently works as a licensed fishing guide in St. Pete Beach, FL.

By pure coincidence they represent all three MARS branches. (It's not coincidence that for the first time, the three services together collaborated in organizing their unified response with outside relief organizations – see the MARS column in April's ***WorldRadio Online*** for more. Jack and Gary's awareness of MARS dates back to service in Vietnam. And it's important to acknowledge that MARS, which was not officially deployed to Haiti, was far from the only organization of hams with members working there. WX4NHC, the ham club associated with the National Hurricane Center, was a major player.

Interestingly, Jack, Ron and Gary have been hams since their youth. The three traveled separately to Haiti to operate the Winlink stations in the capital, AAN4ZH at Port-au-Prince Airport and AAN2ZN at an amusement park across the city.

Now for highlights of their stays, one at a time.

From Hurricane to Earthquake

Immediately on retiring in 2005, and becoming a licensed charter boat captain, Satterfield joined ARES. It was the year of Katrina.

The ARRL's Section Emergency Coordinator for West Central Florida, Neil Lauritsen, W4NHL/NNNØTFH, who had called him for Katrina duty, was back on the phone after Haiti asking his help again.

Satterfield activated the first MARS station, which he set up to furnish communications support for the University of Miami Hospital / Project Medishare outpost at the airport, a 240-bed full-service hospital housed in some two dozen large tents and lots of small ones. He estimated he handled 30 to 50 pieces of e-mail-over-radio traffic a day during his eight-day stint.

But the real significance of the job came home for him at 12:30 a.m. on only his second day when an emergency broke the routine (as if manning the rig from early morning until after midnight can be called routine).

A newborn at UMH urgently required lifesaving treatment that was only available aboard the U.S. Navy's Hospital ship COMFORT, anchored offshore.

Calling for the Navy's Help

The first challenge was how to contact a naval vessel at sea from an amateur station on land. From his charter boat experience, Satterfield recalled the maritime radio channel 16. The team's FT-28 had to be modified to go off-band before he could dial up the international VHF distress frequency, 156.8 MHz.

The Comfort responded immediately. It couldn't launch a helicopter in the dark, so it dispatched a fast boat to pick up the infant. But now the ambulance would have to be to be guided to the boat's as-yet undetermined docking site. Satterfield's quick decision was to hand an HT (handheld transceiver) to an EMT, send him with the ambulance, and "talk him in" hamfest-style to the rendezvous. Time elapsed from first call for help to arrival on ship: 40 minutes.

That procedure wasn't in any training plan, but it worked. Satterfield's emotional AAR for that day, using Navy slang for "well done" said: "PLEASE someone forward a message thru the chain of command, BRAVO ZULU to the USS Comfort!!"

When Gary Mentro of Navy-Marine Corps MARS (N3OS/NNNØEKB) replaced Satterfield as sysop (system operator) at AAN4ZH, he too experienced a larger tasking than merely feeding traffic into the Winlink system.

Medics Wanted, Urgently

The UMH field hospital was suddenly hit with a surge of desperately ill patients. One of the staff came into the commo tent to ask if medics might be borrowed from some of the military units staged throughout the area. No military radio network was in operation at that time (more on this

Bill Williams, AG4QX/NNNØYTD, Navy-Marine Corps MARS member from Tampa, discovers why SWR soared on the GAP Titan antenna used for HF transmission from the University of Miami Hospital's field installation: A cut counterpoise cable. *(Courtesy of Gary Mentro N3OS/NNNØEKB.)*

in a moment). On a chance, Mentro radioed the appeal to the Comfort for broadcast back to shore installations.

"We got the support we needed," he said.

Later, talking with the military at his airport location – including officers from the Army, Air Force and Marine Corps – Mentro became aware that the widely scattered detachments had no direct communication outside their own outfits. "Each unit is basically operating on their own," Mentro said. He attempted to schedule a citywide net on a Florida MARS frequency, but there'd been no success before his eight-day deployment ended.

The Interoperability Issue

"All were tasked with specific missions and did not concern themselves with other matters," he said. "They were doing the best they could under rotten conditions. It is not their fault that interoperability was not thought about in advance of deployment."

But there was one big success on that front: Ex-detective Mentro arranged with the U.S. Immigration and Customs Enforcement at the airport to monitor the MARS VHF frequency overnight in case anybody needed help with security.

"I think I can speak for all the volunteers saying how grateful we are to the friends and vendors who so generously provided needed equipment, from antennas to modems," Mentro said. He also acknowledged the constant support of Jean-Robert Gaillard, HH2JR, president of the Radio Club d'Haiti. To cite just one instance, on hearing via VHF the University of Miami field hospital had run out of paper, Gaillard appeared shortly with a resupply.

Looking back on the experience Mentro wrote: "Probably the busiest I have ever been as far as a radio operator goes. I was repairing radios, serving as a quartermaster of sorts (scrounger), helping with small decisions about so damn many things, and even as a 'bar keep' during the wee hours when we had something to share."

A Ham At Home in a Hospital

Ron Tomo is a vice president and Chief Information Officer of the big (530-bed) Nassau University Medical Center on Long Island, but it was as a ham that he volunteered to accompany its field trauma unit. The team set up in huts and tents in a relatively-undamaged amusement park on the fringes of the capital.

As an infant, Tomo was stricken with polio just a few months before introduction of the Salk vaccine. He lost most use of his right arm. That didn't interfere with his pre-college service as a volunteer ambulance driver in his home town. "I always wanted to work in health care because I spent years in hospitals as a kid," he said. It was his father's D-Day experience in Normandy that eventually stirred his interest in MARS.

Tomo was walking off the stress of long hours on the radio (he was the only operator) when he encountered a surgeon needing help. A Haitian woman had been brought in suffering severe pain and swelling in her leg. There was no X-ray at the field station, so exploratory surgery was deemed necessary. Tomo, who knew his way around ORs from installing computer terminals for surgeons, held a flashlight on the incision. A broken ankle was found and fixed.

Networking the Medics

He teamed up with Jack Satterfield at the airport some five miles away to establish a VHF network coordinating patient transport, medical consultation and supply coordination. "Together, Jack and I were the main tactical commo group working in this area," Tomo said. "The doctors in my compound attributed at least three lives saved only because of the comms setup."

As it turned out, Tomo himself became a patient, briefly. "We were transporting a patient, meningitis and critically ill, to an ICU that I was able to find which we were unaware of," he said. "I fell and cut up both legs. But I had an ER trauma team with me which came in handy. Jack suggested nominating me for a Purple Heart."

"Is there a MARS Purple Heart?" he wondered.

Anticipating just how desperately radio communication would be needed, Tomo on his own purchased 10 DJ-175 handhelds and four IC-2200 mobile radios to leave in Haiti. The Nassau University Medical Center's charitable foundation is accepting donations to reimburse the cost.

Getting Ready for Next Time

Scanning dozens of pages of After Action Reports leaves little doubt where emergency responders need to concentrate their attention girding for the future.

One remarkable finding is how quickly ham operators and medics coalesced into seamless teams. The hams arrived as individual volunteers, not members of

Jean-Robert Gaillard, HH2JR, president of the Radio Club d' Haiti, right, sits with Gary Mentro, N3OS/NNNØEKB at the AAN4ZH-1 Army MARS station. HH2JR provided local information and contacts to the operators, helped find supplies and relayed an amateur's report of a deadly post-quake school collapse. *(Courtesy of Gary Mentro, N3OS/NNNØEKB)*

any MARS configuration; the three MARS HQs played no role in Haiti other than authorizing members to step forward if they wished. Many more did than were needed. It was the relief organizations – in this case, two stateside hospitals, who handled the logistics.

"This mission has evolved and grown beyond the original mission statement," Satterfield said, speaking of the unofficial MARS role. "To date, the tri-MARS activity, demonstrating interoperability at its finest in conjunction with the amateur community, will be a case study for years to come."

"Most critical," he added, will be "the ability to communicate with different U.S. military units."

Thinking Outside the Box

It has to be said that accomplishing that kind of interoperability will require a lot more flexibility with frequencies and equipment than exists today. Mentro discovered when he tried to organize a Port-au-Prince net that the military lacked radios capable of operating outside their own units.

Training and strict conformity with SOP (standard operating procedure) also must rank high. Commented Satterfield: "The protocol and procedures of hams trained as MARS operators makes communication with the various U.S. government agencies seamless. Because we all train to the same standards, when we make a contact there is no question on their side that we are who we say we are." Working with the USNS COMFORT brought that out, he added.

Judging by the accomplishments of these three operators under great pressure and in arduous conditions, the greatest need of all will be readiness to think outside the box. That is, to perceive the needs of the people you're supporting, to seize the initiative, offer solutions, get the job done. In the inevitable "worst case" events to come, sending the traffic will be only part of the emergency communicator's task.

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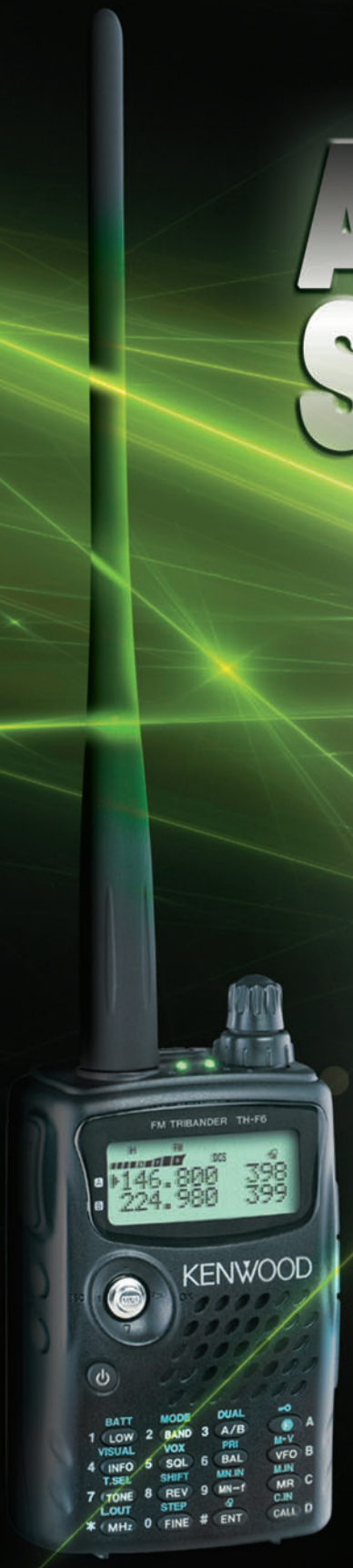

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Earl Shepard, K1ERL, conducts a "Repeaters" mini-class during the "Start 2010 by Getting Your Ham License and Earning Your Radio Merit Badge, sponsored by the Valencia County (New Mexico) Amateur Radio Association in conjunction with Boy Scout Troop 111.

2 Dozen Hams in 3 Days

Mini-classes, Maximum Effort Lead New Mexico Scouts Into Amateur Radio

By Ralph H. Clark, NM5RC

The numbers were impressive: Seeing the broad smiles on 19 youths and seven adults as they trickled out of the exam room confirmed they had passed the Technician exam, which thrilled the 23 hams – five youths and 18 adults – who helped them achieve this goal by serving as instructors, helpers, counselors, volunteer examiners or as an on-site runner.

The youngest of the 18 Boy Scouts earning a license was 10 years old. During the three-day class, 16 scouts completed the requirements for the Radio Merit Badge, as well.

Six of the seven new adult amateur radio operators were accompanied by their children or grandchildren. Five of the newly licensed adults were scout leaders.

The only hitch to this ending of a successful three-day class was the anxious waiting for the last exams to be taken and graded to see which of the young new hams would win the drawing for one of the two donated handheld transceivers.

The Keys for Success

The Valencia County (New Mexico) Amateur Radio Association (VCARA), in conjunction with Boy Scout Troop 111, sponsored the three-day "Start 2010 by Getting Your Ham License and Earning Your Radio Merit Badge" class. Scheduling the class for December 28-30 allowed the youngsters to attend when students were on school break. It also allowed many of the scout leaders, parents, instructors and VE team members to easily find time to participate.

Promoting the class to other scout troops, the home school association and VCARA members, and allowing adults to sign-up, resulted in a class enrollment of 30 (23 youths and 7 adults). The high student success rate is attributed to the class organization, motivation of the students, dedication of the instructors and the building made available for the program.

The course consisted of a dozen mini-classes. The students were divided into groups and rotated through the mini-classes so instructors were working around a table with only six students at a time. During the first two days, five different topics were being taught at the same time and an instructor would teach his/her mini-class five times.

On the third day – when only two topics remained – several mini-classes covering the same topic were presented concurrently. This small student group approach required a lot of

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2010

John Schaaf, K8JWS, explains responsibilities of a control operator and FCC rules to students in his mini-class.

instructors. Of the 10 instructors (some taught two classes) three were youths, and they did an excellent job.

Location, Location, Location

The sponsoring scout troop arranged for the use of the church classroom building where it holds its meetings. Without the multiple classrooms for the concurrent mini-classes, practice exams, exam registration, exams, and the merit badge activities, this type of class organization would not have been possible. Essential to this approach, too, is a large room where the whole group can gather for general organizational purposes and lunch.

Four amateur radio-licensed scoutmasters and leaders who were approved Radio Merit Badge counselors attended with their scouts. The counselors took the lead and used a detailed requirements checklist to work with 18 scouts pursuing the Radio Merit Badge. It got rather hectic for the scouts to pass off the badge requirements during breaks between classes, at lunch and for an hour after classes had ended for the day.

Special classes were held at the end of the first two days to assist the scouts with the frequency charting and electronic symbols / parts requirements. Sixteen of the scouts earned the badge by the end of the class.

Exam Day Arrives

The W5YI exam team arrived just before noon on the third day to set up, take

Four Radio Merit Badge counselors – all radio amateurs – worked with the scouts during breaks between license mini-classes, at lunch and after the other students had departed for the day.

registrations and give exams on laptop computers. Several laptops were available so the students could take practice exams.

Hoping to expose the young students to a few aspects of amateur radio, on-the-air demonstrations of CW, IRLP, APRS and using repeaters were held during the lunch periods. The big hit of these demonstrations was seeing another scout – licensed in a previous class – talking with hams in the Caribbean, Europe, South Africa and Australia with a simple 2-meter rig.

The Joy of Working With Scouts

Coordinating an effort like this with a bunch of Boy Scouts is a great experience for several reasons.

First, being able to raise your hand in the scout sign and having the room silent and the scouts paying attention is something usually unexpected when working with teenagers.

Second, just being able to mention to a patrol leader that something needs to be done, such as carrying stuff out to the car or emptying the waste baskets, is a relief – knowing several scouts will be recruited to take care of it.

Third, knowing the example the ham scoutmaster provides will result in the new scout hams becoming active is particularly satisfying to those assisting with the class.

Two of the four youths who did not receive their licenses during the class elected to postpone taking the exam so they could do some additional study. The other two did not pass the exam, but specific follow-up and mentoring is underway to help these four get their Technician licenses. Similar efforts are continuing with the two scouts who still had a few requirements to complete to earn their Radio Merit Badge.

Lessons Learned

What would we do differently next time? Have more computers for practice exams along with plenty of mentors. The mentors should be especially watchful for root causes when youths are struggling with the exam. Often it is just questions of an area or two that are causing the problem – which can be handled with a bit of one-on-one tutoring.

However, two students failed their first couple of practice exams because they were unable to correctly sound out some of the new technical vocabulary or had

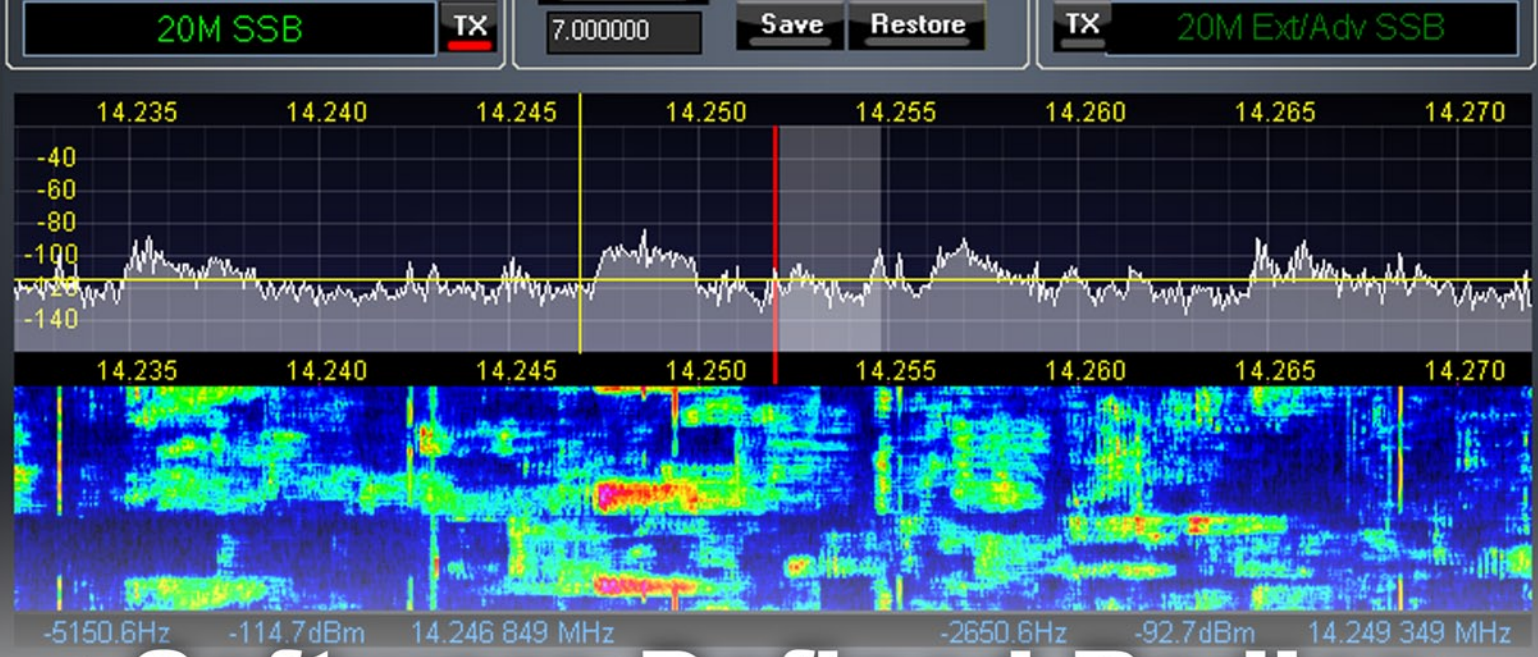
A group of Boy Scouts studies to meet the Radio Merit Badge requirement of drawing a frequency chart.

other reading problems. Having the two ask the VE team for an oral exam resulted in them easily passing the actual license exam.

A planning question you shouldn't waste time pondering: "How much pizza can a scout eat for lunch?" No one knows the answer since there has never been that much pizza available to a bunch of scouts. The same applies to donuts.

If you have questions about the "Start 2010 by Getting Your Ham License and Earning Your Radio Merit Badge" program or would like more information, contact Ralph H. Clark, NM5RC at: nm5rc@msn.com.

A lot of what the scouts learned in the licensing mini-classes allowed them to easily satisfy many of the Boy Scout Radio Merit Badge requirements.



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Raising Our Numbers and Profile While Recognizing a Volunteer – 'Honored By President Obama'

By Patrick Tice, WAØTDA

If there is any theme that runs through publicity about amateur radio these days, it is generally one about the reliability of our communications in an emergency situation.

In story-after-story I see posted by Google News, hams tell the press and the public about the way amateur radio operators can stay on the air to provide vital communications when cellular phones are overloaded or down and other communications infrastructure has failed.

The training and volunteerism of amateur radio operators are highlights of these articles, too. The very best include some human factor – a volunteer operator who has helped the community, a team of operators who have worked in tandem with emergency personnel to provide backup communications, and sometimes even a victim who owes a debt of gratitude to amateur radio.

These are themes that the ARRL has taken a leadership role in promoting, and evidence shows the strategy has worked. More new hams than ever joined the ranks of amateur radio in the United States last year.

According to a story on ARRL's Web site, "A total of 30,144 new licenses were granted in 2009, an increase of almost 7.5 percent from 2008. In 2005, 16,368 new hams joined amateur radio's ranks; just five years later, that number had increased by almost 14,000 – a whopping 84 percent! The ARRL VEC is one of 14 VECs who administer amateur radio license exams."

Handiham member Matt Arthur, KAØPQW, was recognized by the White House for his EmComm volunteer work in Minnesota.

KAØPQW, a professional musician, jams at Handiham Radio Camp.

Of the many reasons people become interested in amateur radio, the one I have heard most often in recent years is that new hams want to earn a license so they will have the means to help in emergencies and to be of service to the community. Countering the erroneous image of ham radio as an "outdated technology" that's all but replaced by the Internet, the ARRL answers the questions of why we are relevant in the 21st Century on its Wordpress "We Do That Radio" and "emergency-radio" Web sites.

With all of that in mind, we turn to the large cardboard envelope I received from Matt Arthur, KAØPQW, of Ellendale, MN, recently. Matt had told me he was sending me an article, but I was surprised and delighted to see that it read: **Honored by President Obama** - *Local ham radio hobbyist recognized.*

The story appeared in the February 18 edition of the New Richland, MN *Star-Eagle* newspaper and featured a photo of Matt in his well-equipped ham shack. In the article, staff writer Jody Wynnemer explained that when a letter arrived from the White House, Matt had learned that he had been selected to be honored.

"Congratulations on receiving the President's Volunteer Service Award, and thank you for helping to address the most pressing needs in your community and our country," the letter began. Matt was recognized for his work with the Community Emergency Response Team in Steele County, MN.

He recalled how he volunteered and handled communications during a deadly flood in 2007. It had been nine hours until the National Guard could relieve him. In the meantime he handled traffic in and out of the flood zone, passing messages to authorities in Winona, MN. As anyone familiar with the geography of southeastern Minnesota knows, the hills and valleys make cellular phone communication problematic.

Those of us who know Matt as a Handiham leader and volunteer understand what a great spokesman he is for amateur radio. Being blind has not slowed him down. In fact, as a Handiham member and volunteer, Matt uses his knowledge of blind adaptations in amateur radio to help others learn they do not need to see to operate the equipment.

To paraphrase a familiar saying about politics, all good ham radio work is local – at least that's how it begins. Local ham radio classes, local SKYWARN training, local ARES exercises, local club meetings and programs – and local news stories, just like the one that features Matt.

Of course, ham radio is worldwide by its nature, but getting the word out about the things we can do really does begin right at home. Congratulations to KAØPQW on this wonderful honor.

You can contact the Handihams at:
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Looking Back and Ahead: An Update On Solar Cycle 24

By Carl Luetzelschwab, K9LA

In May 2009, the Solar Cycle 24 Prediction Panel (a group of solar scientists organized and chaired by NOAA and funded by NASA) made two predictions: that solar minimum between Cycle 23 and Cycle 24 occurred in December 2008, and that the maximum smoothed sunspot number of Cycle 24 would be around 90 in early 2013.

This month's column assesses these predictions – did solar minimum occur in December 2008, and is Cycle 24 ascending per the prediction?

Figure 1 shows the monthly mean Brussels sunspot number for January 2006 through January 2010.

The red vertical bars are the monthly mean sunspot numbers for Cycle 23 sunspots and the blue vertical bars are the monthly mean sunspot numbers for Cycle 24.

Note that Cycle 23 and Cycle 24 sunspots overlapped for 16 months (January 2008 through April 2009). This overlap is a common characteristic of a solar minimum period.

More importantly, visually the data of Figure 1 suggests that solar minimum occurred around the end of 2008 or in early 2009. To better see what happened, Figure 2 plots the recent smoothed sunspot numbers (the smoothed values being the official measure of a solar cycle).

Figure 2 indicates that in December 2008 the smoothed sunspot number mathematically minimized. This actual data nicely supports the prediction. Thus we appear to have good news – that the solar minimum prediction is a good one, and solar minimum is behind us.

I should point out that a minimum smoothed sunspot number does not necessarily define "official" solar minimum. The month and year of "official" solar minimum will be determined by solar scientists, and will include consideration of other issues.

For example, one such issue could be how the number of Cycle 23 and Cycle 24 sunspots is distributed about the mathematical minimum. This was a problem for determining solar minimum between Cycle 22 and 23 – although the mathematical minimum was in early 1996, there weren't any new Cycle 23 sunspots yet. Thus the "official" solar minimum was declared to be later in 1996 when Cycle 23 sunspots were seen.

If you go back to Figure 1, an eyeball estimate indicates approximately the same number of Cycle 24 sunspots before December 2008 as the number of Cycle 23 sunspots after December 2008. This

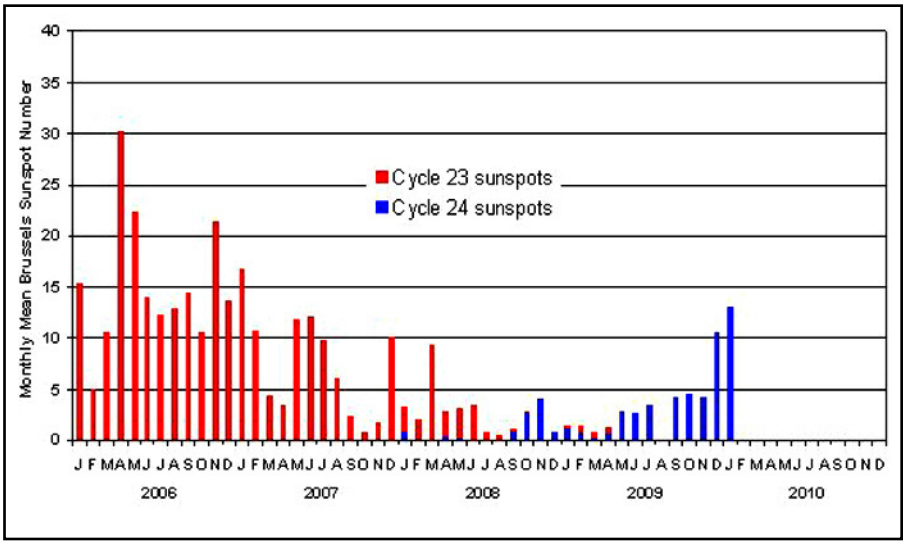

Figure 1 – Solar Minimum Between Cycle 23 and Cycle 24

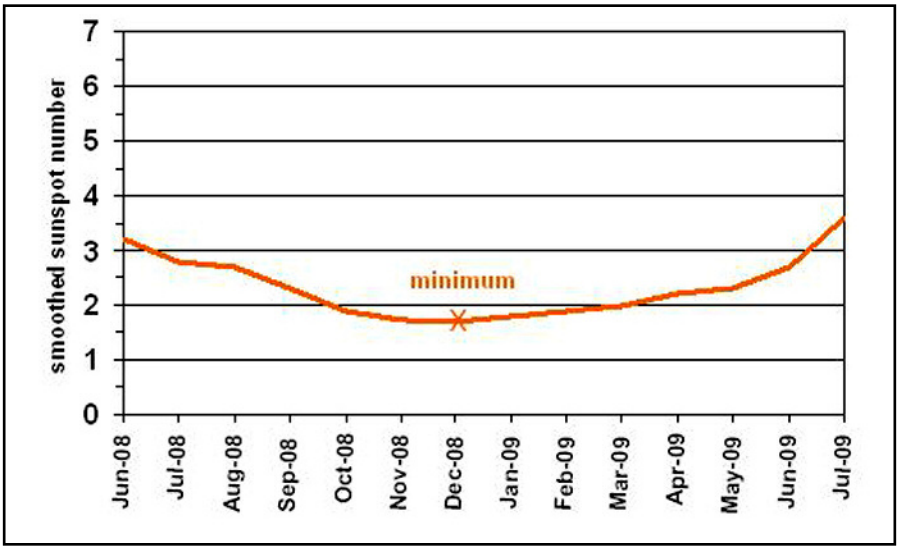

Figure 2 – Recent Smoothed Sunspot Numbers

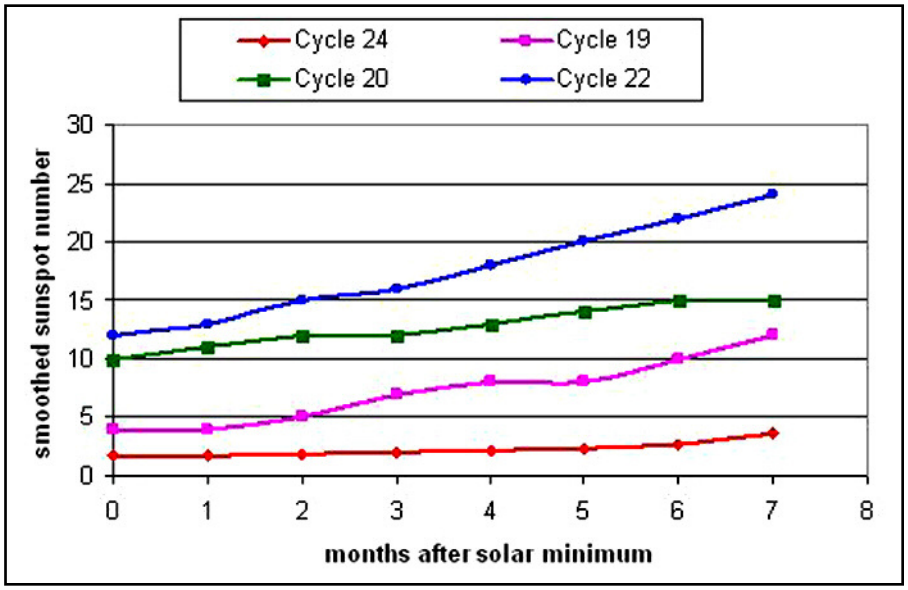

Figure 3 – Cycle 24 Ascent Compared To Other Solar Cycles

cycle	percent increase after 7 months	maximum smoothed sunspot number
19	200	201
24	112	TBA
22	100	158
20	50	111

Table 1 – Percent Increases

will be a strong case for December 2008 as the official minimum.

Now let's look at the prediction for a slightly-below-average maximum smoothed sunspot number of 90. We'll do this by comparing the ascent of Cycle 24 so far to the ascent of previous solar cycles. For the record, the average maximum smoothed sunspot number of all 23 cycles is 113.5.

The solar cycles to which we'll compare Cycle 24 are Cycle 20 (maximum smoothed sunspot number of 111 – about average), Cycle 19 (maximum smoothed sunspot number of 201 – the largest we've recorded), and Cycle 22 (maximum smoothed sunspot number of 158 – the last big one). Figure 3 shows this data.

The most obvious observation from the Figure 3 data is that Cycle 24 is starting from the lowest smoothed sunspot number of those four cycles. But that apparently doesn't mean much, as Cycle 19 started lower than Cycle 20 and Cycle 22, but eventually surpassed both of them for the highest smoothed sunspot number in recorded history.

Since we got nowhere looking at how low a cycle started, let's look at the rate of ascent of these four cycles. There is some precedence for this in that a bigger cycle generally rises more quickly than a smaller cycle. Let's use the Figure 3 data to compare the percent increase after 7 months. Admittedly we have a limited amount of data so far, but Table 1 summarizes this percent increase.

Indeed, a faster rate of ascent appears to suggest a bigger cycle. So far Cycle 24 is rising faster than Cycle 20 (which was about average), and in fact is on par with Cycle 22 (the last big one).

Does this mean Cycle 24 may rival Cycle 22's maximum smoothed sunspot number of 158? Not necessarily, but it sure bears watching as it ascends.

In summary, solar minimum is likely behind us. Additionally, it's too early to tell where Cycle 24 is headed – hopefully we'll have a clearer picture by the end of the year.

Putting the Show On the Road – Or the Water

by Dave Hayes VE3JX

"*Birds of a feather flock together.*" As far as QCWA is concerned, it is very apt.

The strength of QCWA lies in the many local chapters and their meetings and regular get-togethers. Our members, who started in amateur radio at least 25 years ago, enjoy the association of like-minded and like-experienced friends. The feeling is not just a local one.

Annually, the Quarter Century Wireless Association has held international conventions. The first years of our association – from 1948 to 1971 – saw semi-annual conventions held in the New York City area.

In 1972, a change occurred that would become the standard from then on. U.S. Sen. Barry Goldwater, K7UGA (SK), became the QCWA's fourth President and was the motivating force behind "putting the show on the road." That year saw the international convention held in Washington, DC.

In 1973, it was held in Scottsdale, AZ. And from that time on, the QCWA International Convention has been held annually and in different cities throughout North America.

Some cities have been repeat venues, such as the previously mentioned New York City. Then there's Orlando, holding the event in 1974, 1980 and 2002. Scottsdale, which held the second non-NYC Convention in 1973, put on a repeat performance in 1992.

Ottawa, Ontario, Canada, has held two conventions – in 1996 and 2004.

In fact, the 1996 event was the first international convention held outside the U.S. The Canadian QCWA chapters have hosted four internationals, the two in Ottawa plus the 2000 in Toronto, Ontario, and the 2006 in Calgary, Alberta.

Well done! And, with the revival of the Vancouver, BC, Dogwood Chapter 98, we might see a future one in that city.

It was all smiles at the 2006 Calgary QCWA International Convention Welcome Desk.

There have also been three convention cruises. The first was a Caribbean cruise in 2001, with a repeat in 2009. The third was an Alaskan cruise in 2005. These weeklong events allowed for a more relaxed seminar schedule with some serious sightseeing, together with some association with amateurs living in ports-of-call.

For example, in St. Thomas, USVI, the local ham club welcomed those on the cruise. In 2009, they had their table set up right across from where the ship docked.

The cruises also had two or three "marine-mobile" HF stations on board at the disposal of the QCWA cruisers, courtesy of ICOM America.

What is a QCWA International Convention like?

The normal land-based convention is generally three to four days long. We can take a look at the last one, held in Virginia Beach in 2008, as an example of what goes on:

Thursday is when most would arrive at the designated hotel, and then be greeted by the welcome crew of the local host chapter, Tidewater Chapter 119.

In fact, I believe there were welcoming volunteers at the local airport, with a pre-arranged chartered bus to take them to the convention site.

Traditionally, the annual Board of Directors meeting is held on that day, so board members and their spouses would have arrived either on Wednesday or early Thursday morning.

Usually, there is a meet-and-greet informal reception on the evening of arrival, with a grand banquet scheduled for Friday or Saturday evening.

Sometimes, the meet-and-greet is arranged in conjunction with an informal luncheon, supper or just cocktails. Virginia Beach allowed ample opportu-

QCWA operators pound brass marine mobile during the 2005 QCWA Convention Alaska Cruise.

nity to get to know one another, perhaps making or maintaining friendships that will last a lifetime.

At any convention, the forums are a big attraction. The slate of programs presented at Virginia Beach is shown in the sidebar accompanying the column.

As you can see, there was something of interest for everyone. It proved to be a thoroughly enjoyable educational experience shared by those attending.

No one was bored.

After the convention, appreciation was expressed by several of its attendees in public e-mails. Here is a sampling of comments from Canadians who were present:

QCWA Vice President Ken Oelke **VE6AFO**, said: *"The convention was great, the tours were great and the weather was picture perfect! 75 to 80F during the day and lows of 65 to 67F."*

Earle Smith **VE6NM**, a former Radio Amateurs of Canada (RAC) President, wrote: *"A great time was had by all. There was a strong Canadian contingent, one of the biggest ever, I think. I believe I traveled the furthest distance, around 4,500 km, a long day's flight by Air Canada. Enjoyed it all. Also enjoyed operating from WQ4CWA and also made some 2 metre contacts with my handheld."*

George Roach **VE3BNO**, a long time member and volunteer with QCWA, thanked the organizers: *"Arrived back in Ottawa on Monday to 41 degree WX (weather); a far cry from the 75 in Virginia Beach when I left.*

"Thanks to you and the dedicated crew who delivered a great and enjoyable convention. I skipped the tours. Just immersed myself in the convention hotel activities and meeting old and new friends.

"I learned from the papers and forums, and ate way too much seafood. However, I did manage to lose some weight by biking to the end of the boardwalk on Sunday.

"It was great to meet the Chapter 119 members on your Sunday morning net from the convention station.

"Congratulations on a job well done."

All comments I saw were very positive. This was a grand occasion, a thoroughly enjoyable event for all.

I am sure that all the QCWA conventions in the past were of the same calibre. And, I can confidently predict that future gatherings will also be must-attend events.

There is no QCWA International Convention scheduled for 2010 – an unfortunate break in an annual tradition that has existed since the inception of our association. There has been much discussion, study, and exploration of alternatives to the standard convention format. One option being tried this year is to hold the annual meetings for both members and Board of Directors in conjunction with the Dayton Hamvention. The QCWA Web site (http://www.qcwa.org) has the times and locations of these meetings at Dayton.

For 2011, there will be a return to the traditional stand-alone format for the QCWA International Convention, to be held in Warwick, RI, September 8-11.

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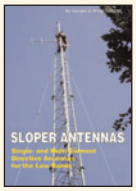

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Juergen A. Weigl, OE5CWL

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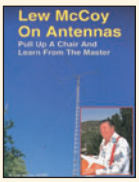

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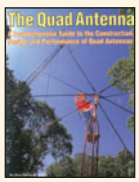

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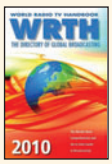

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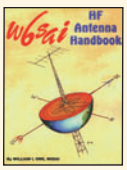

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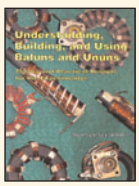

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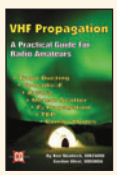

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Not a QCWA member yet?

If you were licensed 25 years ago as a radio amateur and are currently licensed, why not join QCWA and have the time of your life?

Applications are available online: http://www.QCWA.org.

Among many other things, you will enjoy our QCWA International Conventions with "the Proud, the Elite, and the Many."

We welcome any questions or comments you may have. Send them to: ve3jx@bell.net. **—Cheers, DaVe3JX.**

Sample agenda from QCWA's 2008 International Convention

Virginia Beach, Oct. 3-4

Friday
8 a.m. – 2009 Convention Preview
9 a.m. – The Digital Television Transition and Interference Identified (FCC)
10 a.m. – Towers: What Local Government Doesn't Want You to Know (W4WV)
11 a.m. – Dad's Radio Experiences - Starting 1912 (WB1EFN)
Noon to 2 p.m. – Lunch
2 p.m. – Himalayan Adventure (W4PRO)
3 p.m. – Super Crystal Sets (AI4MI)
4 p.m. – QCWA Biography (W4VIC)
4:30 p.m. – Quarter Century Wireless Women, Chapter 120 Meeting (WA9JMO)

Saturday
8 a.m. – QCWA Membership Meeting (NØUF, QCWA President)
9 a.m. – Things That Go Bump on the Web (K3TEZ)
10 a.m. – Discovering and Organizing Chapter Events (K3TEZ, WA4CLK, WQ4L)
11 a.m. – APRS/D-Star/Digital Radio (KE4NYV, W4KXV)
Noon to 2 p.m. – Lunch
2 p.m. – Solar Cycles (KO4MR)
3 p.m. – Medicine and DX in Kenya (W4ZYT)
4 p.m. – HF Propagation/Antennas (W3GNQ)

. . . and lots to do for QCWA members' spouses

What about the spouses of our members? There was much arranged for their entertainment in and around Virginia Beach. Consider these tours:

Thursday
10 a.m. to 2 p.m. – VIRGINIA BEACH WELCOME TOUR - Included tours of Virginia Beach, Norfolk Botanical Gardens, and Rowena's.

Friday
9 a.m. to 4 p.m. – NORFOLK CITY TOUR - Included tours of Nauticus - The National Maritime Center, Battleship Wisconsin - BB-64, Harbor Cruise, MacArthur Memorial, MacArthur Center, and Doumars.

Saturday
9 a.m. to 4 p.m. – MARINER'S MUSEUM/VIRGINIA AIR AND SPACE CENTER TOUR.

Sunday
9 a.m. to 3 p.m. – COLONIAL WILLIAMSBURG/YORKTOWN BATTLEFIELD TOUR.

To add to the tours, the convention location was in one of the prettiest settings in the country – right on the beach with lots to see and lots to buy.

Everybody Into the 2010 Element 2 Pool

John B. Johnston, W3BE

Our VECs have made major improvements with their 2010 Element 2 pool. Containing 396 questions, it goes into effect July 1.

More comprehensive than the 2006 version, it should benefit our community by enabling our VEs to assure that all newly licensed amateur operators are ready for the privileges authorized to a Technician Class operator.

Every FCC-licensed and reciprocal alien amateur operator should also carefully review the questions to assure themselves they are still fully qualified to properly carry out their duties. The pool can be downloaded at: http://www.ncvec.org/.

Element 2 is the first rung on our three operator class ladder. Section 97.507 requires that each Element 2 written question set must be prepared by a VE using questions taken from this pool. The purpose of a pool is to provide uniformity in the examination questions regardless of where they are administered.

A pool should address key matters that enable our VEs to determine if an examinee does - or does not - possess the operational and technical qualifications required to perform properly the duties of an amateur service licensee. It is not intended to be the all-inclusive learning tool.

First and foremost, a working knowledge of the pertinent FCC rules is fundamental to operating an amateur station properly. Also required is an understanding of our good amateur and good engineering practices, along with a grasp of the related technical rudiments sufficient to make those rules and practices meaningful.

Missing from the new pool, however, are questions on the meanings of certain basic technical terms necessary to understanding the applicable rules.

Amateur operators must comply with these rules in order to perform their duties properly. There is also a discomforting emphasis on matters minutiae at the expense of the essential.

Knowing what the terms PEP (absent) and ERP (absent) as used in the FCC rules mean, for instance, is considerably more important to performing properly the duties of an amateur service licensee than simply knowing that a special event station call sign has a single letter for both the prefix and the suffix (T1C01) or that contesting involves contacting as many stations as possible during a specified period of time (T8C03).

Examinees:

Your first step toward gaining access to some extremely valuable radio spectrum by becoming a FCC-licensed amateur operator is to pass a question set prepared and administered by a VE team. It will consist of 35 written questions taken from the Element 2 question pool. It will be prepared by uncompensated volunteer examiners and administered by a VE team.

Although you can miss up to nine correct answers and still pass, you will actually need to know more. Do not waste our VEs' time - prepare yourself carefully for your examination session.

Join a training class and study a training manual. Use the pool only to check on your progress. To simply memorize enough correct answers from the pool to squeak by the examination is to shortchange yourself of the opportunity to gain important knowledge that will enhance your ability to earn the respect of our amateur service community and become a more valuable asset to our country.

Become familiar with the FCC rules for our amateur radio service. They can be downloaded from the GPO website, accessible through http://www.w3BEInformed.org. If your immediate interest is emergency communications, please read BE Informed No. 44. Be certain to thank your examiners for volunteering their time and effort for you.

Volunteer Examiners:

With Public Law 97-259, the United States Congress authorized the FCC to accept your voluntary and uncompensated services for the purpose of preparing and administering examinations for amateur operator licenses.

FCC rule Section 97.503 requires you to administer each written examination such as to determine whether your examinee possesses the operational and technical qualifications required to perform properly the duties of a Technician Class operator.

Encourage your examinees to undergo training prior to being examined. Simply determining who is lucky at guessing 26 correct answers from given multiple-choices is not the objective of the examination.

One argument for turning the examining system over to you was that you have previously passed the examination that you administer as well as the next higher one; thus qualifying you to clear up right on the spot any misunderstanding the examinee may have.

Personally discuss with each examinee the correct answer to each question missed. Evaluate the clarity of the questions and advise your VEC of suggested improvements.

Although creampuff questions T1C01, T4A11, T8C03, T8CO4, T8C05, T8CO6, TOBO5 and T0BO7 may be of interest to amateur operators, distributing such information on these topics can be done through better means.

They fail to meet the FCC-specified standard of being an operational or technical qualification required to perform properly the duties of a Technician Class operator. Their inclusion in a question set displaces questions that would otherwise aid you in making your necessary objective determinations.

There are numerous pool questions that do not support the choice of any format other than multiple-choice. These questions may not be suitable should you administer the examination in some other format.

Instructors and training aid providers:

Explain the meanings of those essential terms absent from the pool: antenna gain, ERP, isotropic, keyclick, km, modulation index, multiplex, nautical mile, PEP, RTTY, sideband, splatter, spurious emission, SS, and W.

Teach the mathematical relationship between frequency and wavelength rather than making it a challenge to the examinee's memorization capability. Questions T3B06 and T3B07 address this matter more directly than do questions T1B03, T1B04, T1B05, T1B06 and T1B07.

Emphasize the transmissions that are prohibited. See BE Informed No. 3 SECTION 97.113 SMELL TEST. Also explain the limits on third party participation. See BE Informed No. 7 ALL ABOUT THIRD PARTY COMMUNICATIONS for a tutorial.

Teach the good engineering and good amateur practices that must be known by a Technician Class operator. See BE Informed No. 30 GEPS and GAPS.

Teach the five principles for which the rules in Part 97 are designed. (Section 97.1) They embody the FCC expectations for our amateur service in places where it regulates communications.

Stress, as well, the underlying principle that it is the *control operator* who *causes or allows* the *station* to transmit on highly valuable worldwide-shared spectrum; whereupon the station licensee and the control operator become accountable for assuring compliance with certain FCC rules. See BE Informed No. 1 W3BE CHECKLIST for help on this. It rearranges the applicable FCC rules into two lists: those that apply to the station licensee and those that apply to the control operator.

Make clear the distinction between those dual obligations even though they may be carried out by the same person. An analogy is your driver's license and your automobile license plate.

Q. Our VE team reviews the questions with the examinees immediately prior to administering the Technician Class exam. Recently, one of our students "revolted" and demanded to go straight to taking the exam. Did we have to comply?

A. That's your decision to make. The administering VEs are responsible for the proper conduct and necessary supervision of each examination.

Section 97.511 says that each examinee must comply with the instructions given by the administering VEs and Section 97.509(c) says that each administering VE must be present and observing the examinee throughout the entire examination. The administering VEs must immediately terminate the examination upon failure of the examinee to comply with their instructions.

Q. Folks in the business of selling amateur radio products want to increase the number of licensed amateurs. Making the exam easier to pass and revising it frequently is in their best interests. They do not, therefore, support increasing the number of words and including diagrams in the exam because fewer people might pass and they would not sell as many products. Your thoughts?

A. Our VEs and VECs absolutely have no rightful excuse to shape the pools to favor commerce or to manipulate licensing trends. The new pool contains three basic electrical circuit diagrams. The VECs obviously now accept that these diagrams and correctly-worded questions are necessary to support our VEs in doing their jobs thoroughly.

W3BE-O-GRAM: Our country can best benefit from a radio service comprised of capable amateur radio operators who have fully proven to our VEs their operational and technical readiness. No one with a pecuniary interest should be influencing our VECs' question pool maintenance effort. Unnecessary pool revisions are a detriment to our examinees, our VEs and our instructors by rendering obsolete their question sets, training materials and curricula. In the instance of this Element 2, however, major revision has been long overdue.

APPRECIATION

Our R&R Superhams-of-the-Month are the members of the longstanding LARC-VEC Team headed by John Creel, WA3GXW, some of whom are shown in the photo.

From left, team leader John Creel, WA3GXW with LARC VEs C.T. David, K3GFX; Michele Cimbala, WK3X; John Elgin, WA3MNN; and W3BE.

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.

YLs Are All Over The Hamvention®

Cheryl Muhr, NØWBV

May means Hamvention® in Dayton, OH for many amateur radio operators – and YLs are among them.

As you look around the different areas, don't forget to stop by the YLRL/Buckeye Belle Booth. Though no booth number is available at press time, the last couple of years it has been in Slot 234 near the cafeteria. Check your program to be sure.

The Young Ladies' Radio League (YLRL) is also hosting the YL forum again this year and it is moved back to its usual Friday time slot. Rumor is that one of the topics is how the YLRL is updating its website www.ylrl.org to things more substantially 21st century. The site is sure to have more information soon and if you are a YLRL member, check the March/April issue of *YL-Harmonics* for more details if they are available by press time.

The past few Daytons have also brought together YLs taking part in updating the history of YLs in ham radio called CQ-YL. Chapters are being retyped for new formatting and if anyone has any old pictures, we would love to have them.

Also needed are new historical information pieces. The history only goes into the 1990s at this point, so we need to know what YL firsts have happened since then along with confirmation of them. For instance, I am supposed to have been the first civilian YL to work out of KH4, Midway Island – but I don't have any proof of it, just hearsay from the Department of Fish and Wildlife. To make the book, we need confirmation.

To keep this history up-to-date, I need to hear from you!

YLRL's 2010 YL Friendship Award

Speaking of catching up, don't forget to listen for other YLs for 2010's YL-only award from YLRL – the YL Friendship Award. This year talk to YLs with a birth-

***WRO* YL columnist Cheryl Muhr, NØWBV, works phone from Svalbard in the Arctic Circle.**

Marie Teto, KDØBQD, operates during ARRL Field Day – her first contesting experience.

day in each of the 12 months to earn the award.

You can find YLs willing to get on the air and help during the unofficial YL net on Thursday nights 7.230 and 14.245 +/-, conditions permitting. And don't forget the YLs at Dayton – 2 meter simplex counts!

YLs Are Contesting Their Hearts Out . . .

Well, they sure were this Valentine's Day during the YLRL's YL-OM contest. Numerous logs were received from both YLs and OMs. This is just one of many YL contests throughout the year.

Next issue look for more details on the Australian Ladies' Amateur Radio Association (ALARA) contest held every August. This year, it's Aug. 28-29. You can also check the organization's Web site: http://www.alara.org.au/contests/ for more details now.

In March, the Canadian Ladies Amateur Radio Association (CLARA) held its annual YL contest. You can get details at: http://groups.google.ca/group/clara-clarion/web/clara-contest.

The YLRL also sponsors another YL contest in October. This one is YL-only, unlike the YL-OM contest where OMs are *needed* as the YLs call OMs and the OMs call YLs for points in YL-OM. On the Web, http://www.ylrl.org/ylcontests.html has more details on all the YLRL contests.

Nisha Mohan, VU2NIS, works CW during a DX-pedition.

If you are looking for YL contests, don't forget to check out the contest section of *WorldRadio Online*. Yes, there are YL contests listed there, as well!

Though YL to YL contacts in some of these contests don't count pointwise, they can be used toward the YL Friendship Award and other YL awards such as YL Worked All States. So if you are a paper chaser (awards collector), YL or OM, check them out as the guys can earn many of the YL awards as well.

This brings up an interesting point with families. If multiple family members can

DX Predictions

MAY 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 = 9.

*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	(13)	***13**	***15**	(11)	***16**
12	(18)	10	***14**	15	(14)
14	21	***13**	***13**	18	20
16	23	13	(12)	19	***24**
18	***24**	16	(12)	18	***26**
20	***23**	***19**	23	16	***28**
22	19	***20**	28	(12)	***28**
24	17	***20**	***29**	(10)	***25**
2	15	***20**	***29**	(9)	***21**
4	***16**	***19**	***28**	***14**	***17**
6	19	***18**	***25**	15	***15**
8	16	***16**	***18**	13	***14**

CENTRAL U.S.A.

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

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SA
7	17	13	***19**	(11)	***14**
9	18	(11)	***15**	14	***14**
11	23	15	***13**	***17**	***19**
13	***26**	16	(13)	***19**	***23**
15	***28**	13	(12)	***20**	***26**
17	***28**	(11)	(12)	***19**	***28**
19	***26**	(14)	(18)	***19**	***29**
21	***21**	17	26	***17**	***29**
23	18	19	29	15	***26**
1	***15**	19	29	***13**	***22**
3	***13**	17	***28**	***11**	***18**
5	***18**	15	23	***13**	***16**

participate in the contest, how do you do it? Does one person do CW and the other SSB? Do you tag team it? Do you share one radio or use separate locations or radios (when possible)? Let me know how you participate in YL contests and/or chasing the YL awards. OMs are encouraged to comment on this too!

Depending on the contest methods vary at my QTH. If it is a DX contest and I need YLs or certain countries, I may search and pounce. My OM, John, KTØF, tends to do the CW contests while I usually do the SSB contests – or the portions thereof. (He often jokes he never even owned a microphone before he met me. *HI HI.*)

The YL voice gets through well on phone and on CW you don't often know it is a YL operating. One reason is there aren't as many YL CW operators, but they are out there. YLs are also found on the digital modes as well.

When not in a serious for-the-points contest, one of the ways I like to contest with John is by tag teaming. Often we both need the same state, country or YL and it is a lot of fun to have one person contact the needed call and then see how fast the other person can do it as well. It is a great way to participate together. Are there any other tag teaming families out there? Tell me more.

Contesting with a local club is a perfect way for someone to start contesting. You can watch the more experienced operators to see what they do. You can listen before operating so you understand the exchange and how to submit your own.

Getting your feet wet may be one of the hardest parts of contesting. I know many YLs who were very shy about getting started, but once they got a taste of contesting, you couldn't pry the mic out of their hands! Don't forget those YL-only contests to take baby starter steps. Field Day is a perfect starter contest, as well.

Many QSO parties and sprints are held during the summer, so take along a portable station on that camping trip with the family and you can operate and still spend time with those who don't have their ham licenses.

Go to a DX location and you get to operate the contests and still get in some beach or scuba time. Just make sure that when you go, all family members (who can) get to operate! Sharing is a good thing.

If you are hunting YLs for awards, make sure you listen during the YL contests. Even if the YLs are calling for other YLs, sometimes they don't mind a quick call from an OM to make sure they really are getting out. At the same time, they will probably want to get back to calling YLs at some point – as they are in a contest.

A lot of YL contests allow points for YL and OM contacts, so if you aren't sure how a YL contest is set up when you hear a YL calling, just ask! If you are an OM, this could be a great time to get your YL or harmonic (son or daughter-even grandkids) on the air for a quick first contact.

Often, when a YL's first contact is with another YL, she isn't so nervous. It just may get her off and running on a new band or mode!

So look around for the YLs contesting, whether it is a YL contest or a YL contesting.

Hope to see you in the contests.

Send contesting information and any other YL radio information you wish to share to me, please! I don't want to have to dig out information on my cat, Ariel. YL kitties just won't make this a YL column for Ham Radio, even if she does love to talk into the mic. Send news.

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 Wed 7 PM on W6TO/R *www.W6TO.com; W6TO@ARRL.net.* Contact Ken, WA6OIB @559-323-6753 12/10

COLORADO

Denver Radio Club (DRC) meets 3rd Wed, 7:30 p.m., St. Joseph Episcopal Church, 11202 West Jewell, Lakewood, CO. Learning/Tech sessions 6:30 p.m. Oldest club in Colorado (1917). Net Sun 8:30 p.m. 145.490 rptr.; *w0tx@arrl.net; www.w0tx.org*

HAWAII

Honolulu ARC meeting 0900 for breakfast in Jan, Mar, May, Jul, Sep and Nov at the Sizzler Restaurant at Pearl Ridge. Contact John, K1ER, 808/484-9748.

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. Club 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!

Reaching Kids Through Inspiring Technology Programs

By Carole Perry WB2MGP

As many of my readers already know, since I've retired from teaching Introduction to Amateur Radio at Intermediate School 72 in Staten Island, NY, I've headed up the Education Committee for the Radio Club of America. Our goal is to support radio/technology classes in high schools and middle schools across the country.

With the support of this non-profit organization, I've visited many schools nationwide and helped to establish – and in some cases duplicate – programs like mine.

In December 2009, I visited with Robert Pauley's Technology classes at Lantana Community Middle School in Lantana, FL. Several teachers told me about this wonderful program where youngsters – many of whom are underprivileged – made major strides and accomplishments in Mr. Pauley's classes.

There are no pens or papers. Everything is digital. The teaching curricula and grade book are 100 percent online.

Students research and learn about technology; how and why it works, from early ham operators to today's modern gadgetry. Within the limits of their equipment, the young students are able to conduct their own classroom experimentation – after learning of the experiments of scientists like Marconi some 120 years ago.

Parents are welcome to join the classroom in person or online at any time. A student on a faraway trip – in some cases to their homeland in Haiti, Jamaica or other Caribbean Islands – may enter the classroom via online video conferencing software. I was able to observe that the enthusiastic students also learned about solid career alternatives for their futures.

Wirelessly, Mr. Pauley's classes have been able to do some cool things with their cameras and computers and to share their handiwork with friends and relatives globally via digital technology. The students have been translating their projects into other languages to share with children in different countries. They've now added Afghanistan and the International Space Station to the areas they may contact.

Robert Pauley has a website at his own expense that features a program he created called "The Classroom of Tomorrow." It

Teachers using the SMaRT Ambassador Training Program get lesson plans and curriculum ideas developed by Robert Pauley and his colleagues.

Robert Pauley conducts technology classes at Lantana Community Middle School in Lantana, FL.

Students get down to work in the Mac Lab in Lantana. All assignments are accessed online.

enables the students to access their lessons online, to perform their digitized assignments and to save them into a password-protected file accessible from any computer by the student, the parents, or the teacher.

Mr. Pauley has written hundreds of lesson plans he shares with teachers of any school – countywide, statewide and beyond – with a program called the SMaRT (Science, Math and Reading Technology) Ambassador Training Program that he and his colleagues have developed.

Although Bob Pauley hasn't gotten his ham license yet, be assured it is on his "to do" list. He and the principal have invited me back to do a radio demonstration at a future assembly program.

I will be working with that school to help expand the already great technology program to include a full amateur radio station. Mr. Pauley teaches other colleagues that "wireless technology is at the core of today's digital innovation, reminiscent of the early days of radio."

Since, as all teachers already know, the ability to teach innovatively is often proportional to the supplies and equipment available in the classroom, coupled with the promise of introducing the amateur radio curriculum, a decision was made to make the technology program at Lantana Community Middle School the recipient of the RCA Education Committee's first monetary award to a school. The $500 has already bought much-needed supplies and equipment, enabling Mr. Pauley to offer some new and exciting projects to the children.

Robert Pauley and I have been exchanging radio curriculum and lesson plans. I recently sent him a Morse code disk which the students are having fun with. The message I would like to be taken away from this is: By your volunteering to go into a local school and doing a radio demonstration or volunteering to help set up a technology class, you can be responsible for introducing or enhancing a radio/technology program in a high school or middle school. Introducing youngsters to the excitement of technology through the fun of a ham radio class is an asset to any school.

Hopefully, we will be able to get many more schools like this on board for help in making education be a fun, positive experience for every child.

For more information about Mr. Pauley and his program, you can contact him at pauley@palmbeach.k12.fl.us.

For more information on how you can join the efforts of the RCA Education Committee in setting up radio/technology programs in grades 12 and below in your local schools, contact me at WB2MGP@ix.netcom.com.

Next Summer's 6-Meter DX Season - Part 2

Bill Pasternak, WA6ITF

We wrapped up the first part of *Next Summer's 6-Meter DX Season* in *WorldRadio Online's* March edition by noting that solar cycle to solar cycle, 6 meters has not changed its propagation characteristics.

What has changed is the way we approach 6 meter operation and the advancements in technology over the past 50 years that have made generations of radio gear obsolete for those who need to be at the leading edge of technology.

That older radio gear isn't obsolete, though, if you want to have fun making local and DX contacts. Propagation is propagation. If it's there, you will make contacts regardless of the mode you choose.

The simple and cheap solution to getting on 6 meters – and even working some of that "Magic Band DX" – are two of the oldest modes known: CW Morse code transmission and full carrier amplitude modulation, or AM phone.

"Nobody uses them any more," you say. "At least not AM. And besides, AM takes up far too much valuable spectrum – more than twice that of SSB."

If you listen below 50.1 MHz, especially during a band opening, you would be amazed at the level of CW being used. Many dyed in the wool 6 meter DX'ers do not own a microphone or a computer – just a radio, a Morse key and ears that are sharper than the best Collins mechanical filter.

To watch them hold QSO after QSO with CW stations that to my untrained ears are just band noise is electrifying. It's a level of art that I could never hope to master at my advancing age. And one I never really wanted to reach. I'm a "talker" who prefers using my voice rather than my fingers.

But for those who want to make a minimal investment to get on 6 meters with a mode that truly is DX oriented, there is nothing more efficient than a simple CW transmitter. Small, low power, solid state 6 meter transmitters and kits are easy to build and plentiful on the cheap used rig market. You just need to know what to look for.

For the 2010 6 meter summer DX season, this National NC-88 receiver will be used with a converter designed and built in 1967 by WA6ITF using a 6BZ7 RF amplifier and a 6U8/6EA8 mixer.

The least expensive way to get on 6 meter AM is by heading to eBay or your local ham radio swapfest. Before you do, though, be warned: *All tube transmitters, receivers and transceivers operate at potentially lethal voltages.*

If you've never worked on rigs with voltage greater than 12 DC, it's best to have someone with the knowledge and training assist you in checking it out, setting it up and teaching you how to tune a tube radio. As my mentor, the late Jommie Rose, WA2MSX, taught me at age 11: "*If you know what you are doing, keep one hand in your pocket. If you don't know what you are doing, then keep both hands in your pockets.*" Following his sage words, I have made it to age 68, so far.

As pointed out previously, the easiest way to get on 6 meter AM is with an early transceiver such as a Gonset Communicator, Lafayette HE-45, Clegg 99'er or any of the circa 1950s through 1960s units. They are plentiful and relatively inexpensive. Most, however, are AM-only without Morse capability. I have found that most will operate satisfactorily if brought back to normal use by using a Variac, gradually increasing the voltage between the radio and the power line to slowly re-form the electrolytic capacitors in the power supply.

The real fun in working a vintage mode is with a replica station of a bygone era. If you do not mind truly vintage gear, look for a late '50s or early '60s tube CW and AM transmitter that covers the HF bands plus 6 meters.

This class of transmitter includes such inexpensive units as the Globe Scout 680A, the Ameco TX-86 (with matching power supply), the Hallicrafters HT-40 and the Knight Kit T-60. All are what I call "6 meter afterthought" transmitters – rigs designed primarily for HF operation that included 6 meters as a way to sell to the then burgeoning Technician class market.

Most are not very efficient on 6 meters. Most use the final amplifier as a frequency doubler, which significantly drops efficiency and does require a good low-pass filter between the transmitter and the antenna.

Others, like the HT-40 and its Knight-Kit almost-clone T-60, exacerbated the problem by not only "doubling in the final" but used TV sweep tubes as final amplifiers. How unsatisfactorily does a 6DQ5 or 6DQ6 perform at 50 MHz? Very. But even with 5 to 10 watts to the antenna, if 6 meters is open, you can make CW or AM contacts. By the way, AM is principally confined to 50.4 MHz, so a single crystal that multiplies to that frequency is all you need.

Of course, you must be able to receive as well as to transmit. A receiver that covers the 6 meter band with decent sensitivity and selectivity is a possibility. That or a general coverage communications receiver and a converter that takes the 50 to 54 MHz band and brings it down to spectrum that the HF receiver can tune.

The most popular down-conversion IF frequencies were 7 to 11 MHz, 14 to 18 MHz and 28 to 32 MHz. While not every communications receiver could tune above 30 MHz, that was – and still is – of little consequence. The 6 meter CW operator uses only 50 to 50.1 MHz, which

Guest Writer Ross Pittard, VK3CE: The Hidden Cost of Amateur Repeaters

While this was written for radio amateurs in Australia who use repeaters, in many ways it applies to the United States ham community or anywhere open access repeaters exist. Installing a repeater and keeping it on the air is an expensive proposition and it seems that those who complain the loudest are the same hams who never contribute a dime to helping to maintain their favorite machine. What follows is a case history from "down-under," but it could just as easily be in Peoria, Oklahoma City, New York, Miami or LA. It's reprinted from WIA News. – WA6ITF.

By Ross Pittard, VK3CE

From time to time we hear about the funding difficulties experienced by clubs who run a repeater, often not for the benefit of their members but for the wider amateur radio community. In New South Wales the Lands Department is continuing on its campaign of introducing high site lease charges all in the name of cost recovery and getting a commercial return for access to sites.

Similar things are happening in other parts of Australia which are making repeater operators very anxious.

Amateur Radio Victoria funds and licenses most of the repeaters in its state. The annual ACMA license fees are nearly $4,000. In addition to this are site fees. Take, for instance, the Mt. William repeater, VK3RWZ, in Western Victoria – the site fees for this repeater are around $1,000 a year!

And recently, VK3RWZ was restored to service after a major antenna failure. Rigging costs alone were in excess of $5,000 for that job.

A considerable number of complaints were received when the repeater was not on air, most came from non-members of Amateur Radio Victoria. Since it has been returned to service, only a couple of loyal and understanding members have expressed their thanks.

Another major new cost for repeater operators is the D-Star network. Amateur Radio Victoria has spent more than $10,000 to get VK3RMM D-Star Mt. Macedon on air. We now find it has minimal use by a few operators, of these less than a quarter are Amateur Radio Victoria members.

And with D-Star comes the monthly expense of Internet access for the D-STAR Internet gateway.

Ongoing maintenance, replacements and upgrades to meet commercial site technical requirements are hidden costs not understood by all radio amateurs.

Do you support the organization that provides amateur radio repeaters? If not, why not join today? And in VK3, that means Amateur Radio Victoria.

Petition Filed for Creation of U.S. 4 Meter band

QRZ.com lead moderator Glen Zook, K9STH, of Richardson, TX has filed a Petition for Rulemaking to the FCC aimed at creating a 70 to 70.5 MHz amateur radio band in the United States.

In his January 27 rule making request, Zook notes the 4 meter band spectrum has been authorized in a growing number of European and African nations. He says that by establishing such privileges for amateur radio operators in the United States and other areas over which the Commission has jurisdiction, it would be of great benefit to those operators residing in such areas.

According to Zook, the recent migration of broadcast television stations to primarily the UHF frequencies has basically eliminated any probable interference to television channels 4 or 5 which otherwise might have occurred. This is because the 4-meter band is located on frequencies that were allocated to television channel 4. Since the 4-meter amateur radio band does not fall in the 72.0 MHz to 76.0 MHz segment – which is allocated to Operational Fixed and various mobile services – there would be no potential co-channel or adjacent channel interference.

In his proposal, Zook suggests that the FCC allow all classes of amateur radio operators operating privileges on this new band. However, he also suggests that Novice Class licensees be restricted to a lower output level than those allowed for Technician, General, Advanced and Extra Class licensees.

Zook says that if the present maximum power output limitation of 1,500 watts PEP is granted to the higher class licensees, then the Novice Class licensees should be restricted to no more than 200 watts power output as per most of the privileges granted those operators who hold a Novice Class license.

It should be noted there are still a small number of low-band VHF television transmitters in operation and their owners will likely oppose the creation of a new ham band at 70 MHz. That said, the level of opposition from broadcasters will likely be far less than there would have been before the Digital Television transition of June 2009 – when most of the nation's VHF low band stations on channels 2 through 7 migrated to channels in the UHF range.

If the FCC decides to issue it a Rule Making designation, Zook's petition is likely to garner a lot of support from the ham radio community. Especially from those who operate in the world above 50 MHz.

You can read the entire K9STH filing at: http://forums.qrz.com/showthread.php?t=234707

— QRZ.com, ARNewsline™

would equate to 7 to 7.1 MHz on a converter with output in the 40 meter band. And in reality, only a part of the lower 100 kHz is used for Morse.

If you happen across a receiver such as a Hammerlund HQ-110A-VHF or its big brother, the HQ-170, it might be all you need. Both cover 6 meters with pretty good sensitivity, but the '170 excels in both frequency stability and selectivity.

If you cannot find one of these at an affordable price, then you will need a broadcast band to 30 MHz shortwave receiver and a converter. Here you have hundreds of models to choose from ranging in price from as low as $20 on into the thousands.

The pricing is not as much based on a receiver's performance these days as its "collectability" and the number of radio amateurs willing and able to spend many times the original retail value of a given receiver for the sole purpose of putting it on a shelf and looking at it.

There are more and more collectors who are not content with owning "one of everything" they will never use. They want two, 10 or 20 of the same radio – regardless of condition, allowing them to boast they "own a dozen National NC-183Ds," or the like.

Avoid any receiver that does not have a power transformer to isolate it from the AC power mains. Receivers such as the Hallicrafters S-38 series or the National NC-60 may look nice, but they can be death traps to the uninitiated.

There are loads of good values in receivers that do have power transformers: the 1950s-era Hallicrafters S-85 and SX-99; National NC-88 and NC-98; Hammerlund HQ-100 plus kit-built receivers from Allied Knight and Heathkit. However, I would not recommend any of these for the first-time buyer of a general coverage receiver unless you have experience in working with tube circuits at voltage levels that can be deadly.

My choice for a first-time used receiver buyer who will be using it as a tunable IF for a converter is the venerable Radio Shack DX-160 (built by Trio, known today as Kenwood). It dates to the 1980s, is solid state, pretty stable after it's on for about 10 minutes, has excellent sensitivity and ample selectivity. Best of all, you can usually find a clean, working specimen complete with matching speaker on eBay or some other auction site for $25 or less.

You will also need a 6 meter-to-40 or 20-meter converter. The best came from Tapetone and Techcraft. They are rare and fairly expensive. A better alternative: Turn to the ham auction sites for an Ameco CB-6 and matching power supply. The two units plug together so there's no exposure to high voltages. Just plug in a cable from your antenna, another from the converter's output to the receiver's antenna terminals and turn both on. Set the receiver to tune the converter's output IF range and go hunting for CW and AM DX.

One last item you'll need is an antenna changeover relay or switch. My suggestion for the neophyte: *Forget it.* Build two simple dipole antennas instead. Use one to receive and the other to transmit. When you feel more confident working in the vintage radio genre, consider a better antenna and some sort of T/R switching. For now, just put your receiver's front panel switch into "standby" before you transmit.

So for how few dollars can you put a station like this on the air? A working Knight T-60 transmitter goes for about $30. A Hallicrafters S-85 between $40 and $50. The CB-6 converter and its power pack another $20 or so.

A cheap microphone? Try a Nady SP-1 from Musician's Friend for about $10 and a Hosa Low-Z to Hi-Z matching transformer for another $15.

A cheap Morse key off eBay, plus some wire and coax for your dipoles will get you on the air for about $100. Maybe less if you are a good "horse trader."

So what will WA6ITF be using in this summer's 6 meter DX season? Like most on the band, I'll likely have something that can hear SSB on 50.125. I have two such radios: A Yaesu FT-847 and an MFJ-9406 – with the '9406 being the "band monitor."

I also have a load of older 6 meter AM gear with my favorite being an original "prototype" 1960 Clegg 99'er transceiver.

I'm also in the process of setting up some other classic gear: A National NC-88 receiver with a converter I designed and built back in 1967 using a 6BZ7 RF amp and a 6U8/6EA8 mixer. Also, a rather rare Lil LuLu 6 meter transmitter and a ceramic Hi-Z microphone from an old Wollensak-Revere tape recorder.

The antenna is an AEA "halo," only about 6-feet up due to CCRs. But that's the same antenna I used to work Hawaii about 5 years ago when hooked to the 5-watt MFJ 9406.

So, CW, SSB or AM, this writer will be having summer magic on the very "Magic Band." Hope to meet some of you on 50.4 MHz.

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			
Cabot	3rd Sun	Daryl Stout, AE5WX, 501-681-1551, ae5wx@arrl.net	
Harrison	2nd Sat	Bob, AJ5C, 870-365-3871, aj5c@cox.net	
CALIFORNIA			
Highland	5/15	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			
Longwood	4th Sat	James, N4ZKT, 407-333-4245, N4zkt@bellsouth.net	
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.
HAWAII			
Oahu Is.	Call	Lee, KH6BZF, 808-247-0587	p/r
IOWA			
Benton Cty	5/27	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 the 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
MASSACHUSETTS			
Boston	5/10	Jim Clogher, N1ICN, 617-364-4658, nlicn@arrl.net	p/r
MICHIGAN			
Garden City	Call	Ken Wardell, AB8ZD, 734-421-7730, gsnapshot@att.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
NEVADA			
Stagecoach	2nd Sat	Jack, AC6FU, 775-577-2637 ac6fu@arrl.net	
NEW JERSEY			
Bellmawr	3rd Thurs	Diane, N2LCQ, 609-227-6281	p/r
Pennington	5/22	Don, AA2F, 609-737-1723 or aa2f@arrl.net	p/rpref.
Roselle	4th Sat	Gerry, AA2ZJ, 732-283-2795, aa2zj@arrl.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	5/13	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, w7ii@arrl.net, 503-965-7575	w/i ok
McMinnville	Call	Mark, AC7ZQ, 503-843-3580	w/i only
Pacific City	1st Sat	Carl, W7LI@arrl.net, 503-965-7575	
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	5/8	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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Two QRPers and the Eternal Enigma of Cognitive DXing

Kelly Jones, NØVD

If you've ever chased DX on the low bands, you know it can be a challenge. Late nights, early mornings, static crashes, weak signals – all part of the game. Once again this month, Paul Dunphy, VE1DX, takes a slightly off-center look at this thing we call DXing.

A couple of the Local QRPers were by the other day, and it was obvious there was a dispute of some sort. We heard the raised voices and saw the finger pointing from the moment they rounded the corner and began beating their way up the hill. We'd read somewhere about the "fight or flight" theory and this kicked in.

Our first response was to slip out the back door and avoid the aggravation, but our conscience kept nagging us. W9EEA may have had good intentions in 1928, but the Amateur's Code didn't seem to take into account the Local QRPers! We gave it a bit of thought and decided to do the honorable thing and see what the problem was. After all, if one QRPer is a good thing, two must be better!

" It was too late in the day!" the first QRPer shouted, as they got within earshot. " Way too late. It was well after sunrise and there was no way you could hear them on 80 at that time of day. And don't try to tell me otherwise, because I've been there before. The band is closed."

The second QRPer was just as adamant: " He was 559 with a bit of QSB, but completely readable. There's a secondary peak on 80 after sunrise! Everyone knows that. And he was there, Buster, whether you could hear him or not!"

By this time we wished we had taken the " flight" option, because the two QRPers were already on the front porch. It had degraded to a " Was not!" – " Was too!" screaming match. What could we do? This was getting out of hand, so we issued a 20-dB " Be quiet or go away!" bulletin!

" What's the problem?" we asked, motioning for the first QRPer to tell us his story.

" It's that Asian DXpedition," he said, calming down a bit now that he had the floor. " They were on a few mornings ago and I was copying them on my vertical, S4 to S5! I didn't bother calling because the west coast Big Guns had the upper hand. But I heard them . . . listened to them for at least 15 minutes before they faded away."

" OK" , we said carefully, " that sounds reasonable." Then we turned our attention to the second QRPer who was pacing back and forth and shaking his head.

" I saw that spot on the packet cluster at the same time, and I listened too. There was no one there! My delta loop has been working great for the last three years and if I can't hear the DX, it means we've lost propagation. Simple as that! They might have been on, but there was no signal here on the east coast."

We thought this over for a few minutes, then decided we'd try a compromise. We didn't like compromises, because as Margaret has so well put it: " A compromise is an agreement that pleases no one." Nonetheless, we decided to give it a shot.

" Well, we were also listening on 80 that morning," we began, " and to be quite honest, we did hear the DX. They were 339 at best and all we could hear was the 5NN fading in and out for a few minutes. We wouldn't have known who it was if it wasn't for the cluster spot.

" One of you is using a vertical and the other a delta loop. We have a dipole for 80-metres so it probably was performing in-between on that morning. With the low bands, there are vertical days and there are horizontal days. No doubt the signal was arriving at an angle that favored the vertical, not the loop. The next morning conditions might well have been reversed. Understand? So, you are both right." We kept a straight face, but we were quite pleased with ourselves!

The QRPers looked at each other for a moment. Then the QRPer with the loop said slowly, " Maybe he's right. I did hear the pileup, but not the DX, so maybe my delta loop was catching the horizontal stuff, or maybe the radiation angle wasn't right for me that morning. Who knows?" With that he shrugged and made his way down the hill, confident that he'd been vindicated.

We thought about it for a few minutes. Maybe Margaret was wrong . . . here we had a compromise that seemed to have worked.

The vertical QRPer waited until the QRPer with the loop was out of sight, then his face broke into a broad grin. The cat-that-ate-the-canary grin. We were not so sure of our success, and even less so when he began to speak:

" Smooth move," he said. " That settled that without giving away my secret. Polarization and radiation angle! Good idea. That'll keep him happy for years. Sometimes I wonder about those guys. It's a good thing us true blue DXers stick together, isn't it?"

The shields went up! Being lumped in with this particular QRPer wasn't our first choice. We had to know more.

" What secret?" we asked innocently. " You know," the QRPer replied in a sly voice, his beady little eyes glistening with the look of one-upmanship. " The analog headphone filter only a few of us know about. That's why I could hear the Asian DXpedition and he couldn't."

We took a deep breath, thought again about running for the nearest door, and asked the inevitable question. " Yes, the analog headphone filter," we replied. " We heard about that. You've got one working?"

At this point we had no idea what the QRPer was talking about, but if he was really hearing long-haul DX on 80-metres two hours after sunrise, we had to know more.

" Sure have," the QRPer replied. " It's simple to build. You see, as most anyone knows, one-half of the human brain is ori-

ented to the logical, mathematical aspects of cognitive recognition, while the other half is better at the creative, artistic functions.

" The trick is to use the half that corresponds to the CW signal of the DX. For weak signals, the creative, artistic half is much better. The trick is to feed the signal to the correct half of the brain . . . and I'm convinced that this is not always the same half! I'm sure it changes from time to time, maybe even daily." What could we say? This was making no sense at all, so we just nodded in agreement and the QRPer pressed on.

" What I did," he said, " was to run the cord of my headphones through a patchbox. I have a bank of switches and I can add a quarter wavelength of wire to either the left or right earphone. I've got coils inside that load it up for all the bands, so I can feed any band from 160 to 10-metres to either the right or left side of my brain, introducing a phase lag that gives the appropriate side 4-5 dB gain. Thus, with a simple flick of a switch, I can increase the signal on any band from white noise to a perfectly readable signal! What do you think of that? And don't tell the guy with the delta loop, or he'll build one!"

Son of a Gun! We had a fleeting thought of running this by the Old Timer, but common sense prevailed. Why propagate this up the line? So, we did what had to be done.

" Good for you," we said, giving the QRPer a knowing look. " You've figured out one of the Eternal Enigmas of DXing. Keep this knowledge to yourself, share it with no one and use it to work the DX. Tell no one else what you've discovered!"

The QRPer leapt to his feet and headed off down the hill, confident that he was just that much closer to understanding the Mysteries of the Ages and the true meaning of " DX IS!"

As for us, we shook our head slowly back and forth, got up and shrugged our shoulders. What more could we say when everything had been said? Nothing!

That's it for this month's column. A very special thanks to Paul Dunphy, VE1DX, for another humorous look at the things we do as DXers. I also 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 an upcoming column. Until next time, see you in pileups - and now on Twitter as N0VD!

Update Your 'Audio Insurance' For the Field

By Richard Fisher, KI6SN

Dennis Blanchard, K1YPP, wrote a very interesting article recently about his trail-friendly radio trek along the 2,176-mile Appalachian Trail, spanning 14 states and filling his log with CW contacts and great memories.

In "An Appalachian Journey" in the March edition of QST, 'YPP listed among his goals making "at least one CW contact from each state."

This veteran outdoorsman and field operator encountered a lot of challenges along the AT, but his stop at the Mark Noepel Shelter in Massachusetts really caught my eye.

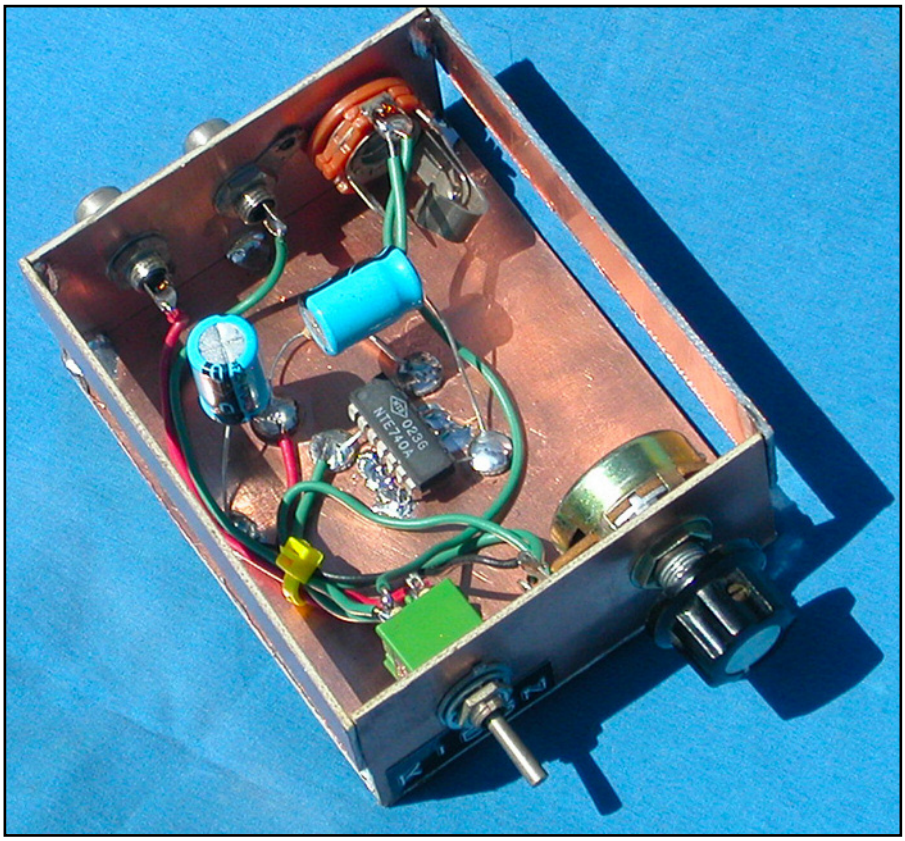
"I quickly put up the antenna and set up my station," he wrote, with rain threatening. "Unfortunately, right then a number of young through-hikers showed up. I tried to operate, but it proved impossible since they had a portable CD player." The volume of the music, combined with pounding rain, "made it impossible to hear my receiver."

Even without through-hikers, ambient sound in the field can challenge a trail-friendly radio excursion. Especially when your radio doesn't have enough audio punch to prevail. If a river runs nearby, the wind is blowing or birds are causing a ruckus, Mother Nature can overwhelm your ability to hear.

Lots of today's lightweight radios have audio amplification sections with the inexpensive, easily obtained LM386 chip. In many designs it delivers about 300-milliwatts of audio. That's fine when you're sitting in a quiet radio shack, but go into the wild and it might be another story.

Fortunately, getting a little "audio insurance" isn't an insurmountable problem for the field operator. That's where the KI6SN LM380 T-FR Audio Amplifier comes to the rescue.

The LM380 is an integrated circuit amplifier chip that – as an outboard audio booster – can produce up to 2-watts of ear-pleasing volume sure to overcome the racket of even the most babbling of brooks.



The KI6SN LM380 T-FR Audio Amplifier can provide up to 2-watts of audio – enough to overcome most natural and man-made sounds encountered in the field.

The 14-pin version of the IC is required in this circuit and uses only a handful of additional parts to swing into action.

This '380 has a common equivalent designated NTE740A. They're available for less than $2 from parts houses such as Digi-Key or Dan's Small Parts and Kits. Links to those parts sources can be found on the Trail-Friendly Radio Extra Web site: http://www.TrailFriendlyRadio.blogspot.com. You'll find more photos of the KI6SN prototype there, as well.

As soon as we read about 'YPP's auditory misfortune, the LM380 immediately came to mind. It was off to the workbench to fire up the soldering iron.

There are lots of LM380 designs in the electronic cosmos, but we chose one of the most spartan. In addition to the '380 chip, you'll need only a 2.2 ohm resistor, a 10K potentiometer, two 470μF electrolytic capacitors, a double-pole / double-throw (DPDT) toggle switch and jacks for 12-volt power, audio input and headphones.

Looking at the schematic, note that eight of the LM380's 14 pins are grounded. This makes construction remarkably easy and also provides an octet of paths for dissipating heat from the chip. Think of it as a caterpillar releasing heat through eight of its feet.

Additionally, three pins are unneeded and cut off before installing, which leaves just three pins remaining for use in the audio amplifier's circuitry: 2, 8 and 14.

Since our previous experience had been only with the diminutive LM386 and its big brother, the 8-watt LM383, we decided to prototype the LM380 circuit on a 2.75-by-3.5 inch piece of dual sided printed circuit board. Manhattan-style construction seemed to be the best way to go. A link to an explanation of this building method is on the T-FR Extra Web site.

We started by clipping off pins 1, 9 and 13. They're unused and would just get in the way.

Next we splayed pins 2, 8 and 14 into a horizontal orientation. They would ultimately be soldered to Manhattan-style pads for connection to the amplifier's other parts.

That left pins 3, 4, 5, 6, 7, 10, 11 and 12 – still in their vertical orientation – to be soldered directly to the PC board ground plane.

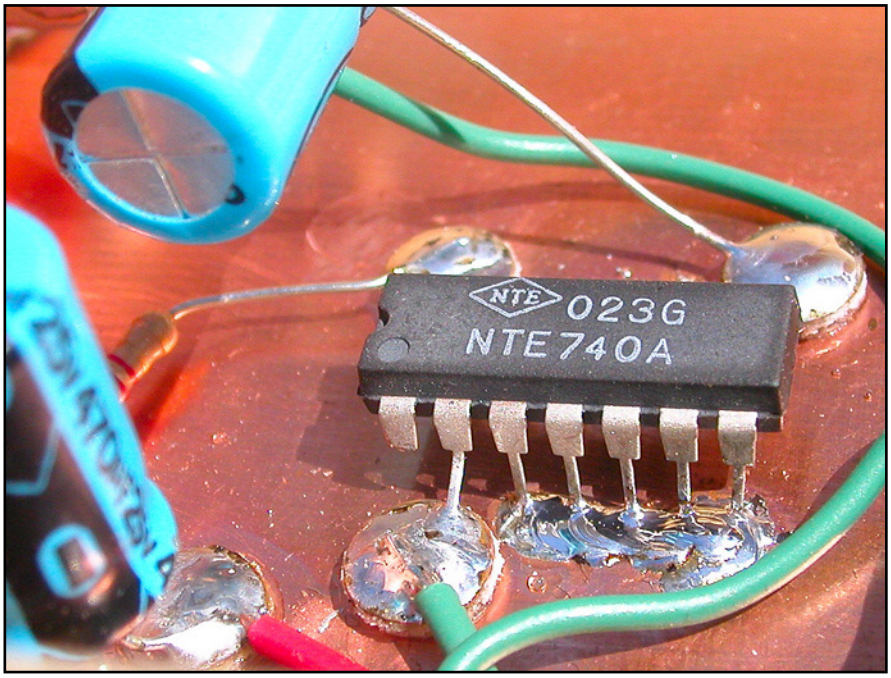
Once firmly in place, it was time to assemble the rest of the circuit. We placed a Manhattan soldering pad within reach of each horizontally-bent pin: 2, 8 and 14.

After mounting the DPDT toggle switch and 10K potentiometer on the front panel, and two RCA phono jacks (AUDIO IN and 12V DC) and a headphone jack on the back panel, it was time to get soldering.

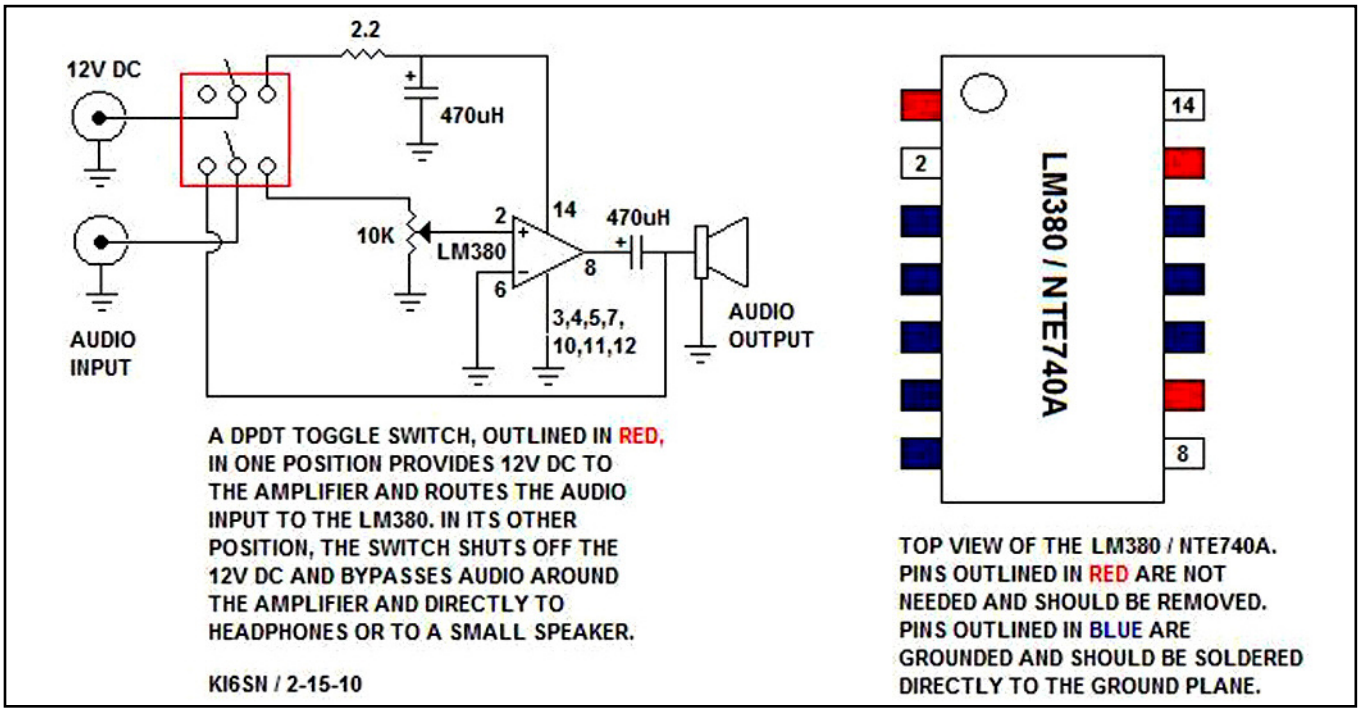
The toggle switch allows the operator to easily choose between having the amplifier in line or bypassing it to conserve battery power when it's not needed. In one position, the audio input from your transceiver is routed to the amplifier and 12-volts DC is applied to the circuit. Switch to the other position and the audio input bypasses the amplifier, going directly to the headphone jack – and DC power is removed from the amplifier circuit.

The DPDT switch used at KI6SN also has a center detent position which acts as a MUTE position if we want to shut off audio to the headphones all together.

Since we were eager to hear how the circuit would work, we grabbed the first 470μF electrolytic capacitors we could find in the storage box. In the scheme of things, they are physically huge, rated at 25-volts DC. When we re-build this cir-



One 14-pin LM380 / NTE470A chip – most of whose pins are soldered directly to ground – combines with a handful of other parts to produce a mountain of audio for driving headphones or a small speaker.



A 2-watt audio amplifier for the field.

cuit for actual trail use, we'll opt for lower-voltage-rated, physically smaller capacitors.

The 10K potentiometer is an off-the-shelf unit from Radio Shack (RS No. 271-1721). We're sure there are physically smaller substitutes for that component, as well.

It took practically no time to solder in the resistor and capacitors and to complete wiring to the jacks, switch and potentiometer.

The KI6SN prototype measures 2.75-inches wide, 3.5-inches deep and 1.25-inches tall. That's plus-size for a backpacker concerned about the size of his load. Using carefully chosen components, this amplifier could easily fit into a housing considerably smaller than that.

From start to finish, it took only about an hour-and-a-half to build the LM380 audio amplifier. With the last wire soldered into place, we were eager to hear how it would play.

Cabling the audio output from a NorCal-40A transceiver into the amp's input jack, plugging headphones into the back panel and applying 12-volts DC from a gel-cell, we were ready for a test run.

Starting with the DPDT switch in the BYPASS position, we immediately heard 40-meter signals from the '40A in our headphones. That switching circuitry was working just fine. We tuned in a CW signal from several hundred miles away with an RST of 579.

Next, not knowing what to expect, we turned the potentiometer to its minimum setting. It was time to power-up. Flipping to AMPLIFIER and slowly turning the potentiometer knob clockwise, the NorCal-40A audio started to build. The 579 station that was somewhat light copy with only the '40A amplification was nearing ear-splitting volume with the LM380 in line.

The amplifier was certainly working. We switched back and forth from BYPASS to AMPLIFIER positions. It was gratifying to hear the significant added audio punch.

The noise floor of the LM380 is extremely low to this operator's ear. Whether hooked to a bench supply or gel-cell battery, there was practically no "hiss" from the idling amplifier.

We discovered a welcome bonus to using this circuit as well. Lots of T-FR transceivers use a potentiometer in the front end of the receive circuit to act as an RF gain control, which in-turn regulates the volume into the headphones. With this outboard audio amplifier, the operator can keep the RF gain on his transceiver cranked wide open and regulate the headphone volume using the potentiometer in the LM380 circuit. That's especially useful when copying low-level signals on a noisy band.

We suspect that if K1YPP had this little amplifier tucked into his backpack, he'd have easily been able to overcome the challenges a CD player or a summer rain can bring to the noise floor of the Appalachian Trail.

For more photographs of the KI6SN version of the LM380 T-FR Audio Amplifier, visit the Trail-Friendly Radio Extra Web site.

Making Sure You're Ready For the *Protracted Scenario*

By Jerry Wellman, W7SAR

The first public service event I was heavily involved with was a search for a 9-year-old boy missing from a church picnic on a central Wyoming mountain back in 1971. Participants included hikers, Scouts, community volunteers, Civil Air Patrol, CB and amateur radio operators, the military and some out-of-state search and rescue (SAR) teams.

What I most recall from that event was that the days just ran together. After a week, we were tired, cranky, dirty and not optimistic. The boy was found alive after 11 days and that was a miracle.

I recall during the search making dozens of trips up and down the mountain to get equipment or find specific items to replace something we broke or to get something we decided would make our involvement more effective. In those days there was little by way of formal guidance for public safety volunteers – we just made it up as we moved forward.

That event was the first of many I would call *protracted scenarios* that often lasted for several days or even one or two weeks. It was common for us to have ready-packs (with sleeping bags, clothing and food) in our cars because the "norm" was a multi-day event.

Public service has evolved. Today's events are seldom more than one day and often last only a few hours. They happen quickly and they get resolved quickly.

Recently a Coast Guard helicopter crashed in Utah near Wolf Creek Pass. It's pretty rugged terrain and there was heavy snow. Similar events from even 10 years ago would have been a day or two rescue and survivors would not be anticipated. The search near Wolf Creek Pass lasted all of one or two hours and all five crew members survived.

When the first call came, it was in response to satellite beacons that indicated an emergency and gave the GPS coordinates. Crew members from the downed chopper also used text messaging to alert others. Literally within minutes the sheriff's SAR team was responding and rescue choppers were airborne. It was over within hours – in very rugged terrain.

In recent history, survivors of a private plane crash used a SPOT personal rescue device to alert rescuers. It gave GPS coordinates and within minutes a rescue was under way.

What's the message for today's volunteers? First, I'd never leave home without a SPOT device (http://www.findmespot.com). It is worth the cost and can trigger a response if you find yourself in need of rescue. Second, responders need to be ready to go quickly and prepared to stand down within hours.

But here's the message we're not focusing on: Be ready for the protracted event. While many – if not most – events will be of short duration, it is now the week-long scenario that deserves our attention.

Many of us are not prepared if the event we're supporting doesn't end within a day. We don't carry overnight gear or have plans for food or water. I've had volunteers tell me there is no need to carry extra radio batteries because a full charge on their walkie-talkie is more than adequate. In discussing ready-gear with others, the tendency is to focus on the "quick" and simply ignore the possibility that an overnight or multi-day event will happen.

For the most part, focusing on the hour-long response serves our needs very well as few can point to long events happening in recent memory. Once in a while someone will mention a hurricane or earthquake or even a HAZMAT evacuation, but most of our need is short-term.

Do I have answers? No. I have my gear at home for a long-term event but seldom do I carry it in my vehicle. I admit complacency: When my alert pager sounds, I don't usually think of grabbing the several duffel bags of long-term supplies. On a SAR event some years ago I left on what I thought was a routine event to track an emergency beacon – and after a full day and 200 miles of travel, I wished I'd taken more gear. But, that's an event that in today's world is an anomaly.

The topic is worthy of discussion in your next gathering. There are always some people who will argue the need to carry more and some who will argue the need is pointless. Aside from offering you any guidance, I would simply argue we should not ignore the possibility of a *protracted* event – and prepare accordingly!

Too much, and dead batteries

I do have too many radios. You may have too many radios, as well. A lot of mine are going on local sales sites as I simply need to divest myself of a dozen or so portables.

The challenge hit me hard last week when I grabbed a radio as I headed out the door in response to a callout – and discovered the batteries were dead and I could not quickly find the alkaline pack. I've since figured out a better way to keep my radios (the two or three I use) charged and have the alkaline pack in an easier-to-grab location.

What I observed is that many of my radios are simply neglected, which means the batteries are not cycled properly and attachments (earphones, spare alkaline packs, antennas, etc.) are scattered.

I'm on track to simplify! One of my goals in the next month is to get a better handle on what I *need* for a response vs. what I *want* for a response. Often my "wants" and "needs" are miles apart. It's good once in a while to take stock of reality and just get back to basics.

ID Holder: A Good Idea

Perhaps you, too, have collected a number of ID badges and cards. I have and the number of required cards is not getting

fewer in number. Various agencies all have their own cards and many refuse to honor the cards of another agency – even if they share the same EOC!

My good friend, Mike Renlund, KC7IID, showed me a very nice ID holder in the form of an armband. I've ordered one! It's made by Chisco and the cost (plus shipping) was under $10.

The holder is robust enough to carry a lot of cards and Mike has even attached a small LED light for convenience. It's a good idea.

What prompted Mike's purchase was an airport ID required for ramp access. Usually you would just clip it to your pocket or a lanyard, but Mike pointed out that "clipped" things should not fall off around aircraft. He's right!

The holder he recommended is secure enough to stay on your arm and is adjustable for wear with or without a heavy coat. The cards are secure and won't fall out of the holder. You can use it for any response and be assured your cards won't blow away, fall off, get snagged and be lost.

Thinking of Kindle

Another KC7IID idea is the Kindle – the digital device sold by Amazon designed for electronic books. Mike has uploaded his with various emergency response documents he would need during an event. Anything in a .pdf format can be put on the Kindle, including certificates he's earned to show his qualifications. Nice idea!

The Kindle is a little on the expensive side but would be of great benefit to anyone in a response role, especially those with supervisory responsibility. (You could even put your *WorldRadio Online* editions on your Kindle!) Mike reports that various maps and other ICS documents are easily stored and viewed and that the battery is good for more than a week.

As you consider the amount of reference material available, having it all on one easy-to-read device makes a lot of sense. The display is easy to read and is black and white (no color) which may make maps not as easy to use, but that's the only downside for an emergency response application.

Until next month, best wishes from Salt Lake City!

CONTEST CORNER

CONTEST: AGCW QRP/QRP Party
DATE & TIME: 1300-1900Z 1 May
BANDS/MODE: 80 & 40M CW
POINTS: 1 Pt. each QSO; 2 Pts. QSO with Class A sta
MULTIPLIERS: DXCC Countries
EXCHANGE: RST + Serial # + category
ENTRY CATEGORIES: A = <5W; B = 5-10W
ENTRIES: 31 May Jo (Juergen) Mertens, DJ4EY, Am Muehlenbruch 32, D-59581 Warstein, Germany E-mail: qrp-party@agcw.de.
Rules at: www.agcw.org/en/?Contests:QRP-QRP-Party

CONTEST: Indiana QSO Party
DATE & TIME: 1600Z 1 May – 0400Z 2 May
BANDS/MODE: 160-10M SSB/CW
POINTS: 1 Pt. Phone, 2 Pts. CW
MULTIPLIERS: IN Counties (92 possible); IN sta's count States/Provinces/Countries
EXCHANGE: IN sta's give RS(T) + County; All others give RS(T) + State, Province or DX
ENTRY CATEGORIES: Single Op, High, Low, QRP; Multi Op, Single XMTR; Mobile; Portable; Rover
ENTRIES: 30 Days Mike Goode, N9NS, 10340 Broadway, Indianapolis, IN 46280-1344
ASCII or Cabrillo logs to: inqp@hdxcc.org
Rules at: www.hdxcc.org/inqp/rules.html

CONTEST: 7th Call Area QSO Party
DATE & TIME: 1300Z 1 May - 0700Z 2 May
BANDS/MODE: 160-2M SS/CW/Digital
POINTS: 2 Pts. SSB; 3 Pts. CW or Digital
MULTIPLIERS: 7th call area stas count States/Provinces/Countries; All others count 7th call area counties (259)
EXCHANGE: 7th call area stas give RST + 5-letter state/county designator; All others give RST + State/Province/Country
ENTRY CATEGORIES: Single Op High, Low (<150W), QRP (<5W); Multi-single High, Low, QRP; Multi-multi; Mobile
ENTRIES: 5 June 7th Call Area QSO Party, c/o CODXC, 61255 Ferguson Rd., Bend, OR 97702
Cabrillo logs to: 7qplogs@codxc.org (Note: Any log with 40 or more QSOs must be submitted electronically)
Rules at: www.codxc.com/new/Page.asp?Content=DRYLAND7S&Page=3

CONTEST: New England QSO Party
DATE & TIME: 2000Z 1 May - 0500Z 2 May & 1300Z - 2359Z 2 May
BANDS/MODE: 80-10M SSB/CW/Digital
POINTS: 1 Pt. SSB; 2 Pts. CW/Digital
MULTIPLIERS: NE Counties: CT/8; MA/14; ME/16; NH/10; RI/5; VT/14. (NE sta's use States/Provinces/DXCC)
EXCHANGE: RS(T) + State/Province/DX; NE sta's give RS(T) + County/State
ENTRY CATEGORIES: Single op - High, Low (150W or less), QRP; Multi op - single XMTR
ENTRIES: 30 Days NEQP P.O. Box 3005, Framingham, MA 01705-3005
Cabrillo to: logs@neqp.com
Web page: www.neqp.org
Rules at: www.neqp.org/rules.html

CONTEST: MARAC County Hunters CW
DATE & TIME: 0000Z 2 May - 2359Z 3 May
BANDS/MODE: 80/40/20/15/10M CW
POINTS: 1 Pt. fixed stations; 5 Pts. DX; 15 Pts. for U.S. mobiles and portables operating from more than one County
MULTIPLIERS: Total of U.S. Counties (3,077)
EXCHANGE: RST + County + State (DX gives Country/Province)
ENTRY CATEGORIES: Single op only!
ENTRIES: 30 Days Randy Hatt, AA8R, 7878 W. County Line Rd., Howard City, MI 49329 E-mail: AA8R@aol.com
Rules at: http://marac.org/cwrules.htm

CONTEST: MARAC County Hunters SSB
DATE & TIME: 0000Z 2 May - 2359Z 3 May
BANDS/MODE: 80/40/20/15/10M SSB
POINTS: 1 Pt. fixed stations; 5 Pts. DX; 15 Pts. for U.S. mobiles and portables operating from more than one County
MULTIPLIERS: Total of U.S. Counties (3,077)
EXCHANGE: RST + County + State (DX gives Country/Province)
ENTRY CATEGORIES: Single op only
ENTRIES: 30 Days Randy Hatt, AA8R, 7878 W. County Line Rd., Howard City, MI 49329 E-mail: AA8R@aol.com
Rules at: http://marac.org/ssbrules.htm

(NOTE: The MARAC contests are two different contests and require separate logs for each contest.)

CONTEST: 10-10 International Spring CW/Digital
DATE & TIME: 0001Z 1 May - 2359Z 2 May
BANDS/MODE: 10M CW/Digital
POINTS: 1 Pt. non-member; 2 Pts 10-10 member
MULTIPLIERS: None
EXCHANGE: Call + Name + State/Country + 10-10 #
ENTRY CATEGORIES: Single -op; Club; QRP
ENTRIES: 17 May Dan Morris, KZ3T, 131 Valencia Ln., Statesville, NC 28625
E-mail: tentencontest@roadrunner.com
Web page: www.ten-ten.org
Rules: http://www.ten-ten.org/Forms/QSOPartyRules_05312009.pdf

CONTEST: FISTS Spring Sprint
DATE & TIME: 1700-2100Z 8 May
BANDS/MODE: 80-10M CW
POINTS: 5 Pts. member; 2 Pts. non-member
MULTIPLIERS: States/Provinces/DXCC Countries
EXCHANGE: RST + State/Province + Name + FISTS # (non-members give power)
ENTRY CATEGORIES: QRO = >5W; QRP = <5W; Club
ENTRIES: 30 Days Gil Woodside, WA1LAD 30 Hilltop Ave., West Warwick, RI 02893-2825
Cabrillo or ASCII to: wa1lad@cox.net
Rules at: www.fists.org/sprints.html

CONTEST: Alessandro Volta RTTY DX
DATE & TIME: 1200Z 8 May - 1200Z 9 May
BANDS/MODE: 80-10M RTTY
POINTS: Not clear - see rules at: www.contestvolta.com/44volta-e.pdf
MULTIPLIERS: DXCC Countries worked each band
EXCHANGE: RST + Serial # + CQ Zone
ENTRY CATEGORIES: Single op, Single band; Single op, All bands; Multi op; SWL
ENTRIES: 30 Online submission only.
Cabrillo to: log2010@contestvolta.it
Rules at: www.contestvolta.com/44volta-e.pdf

CONTEST: EUCW Fraternizing CW QSO Party
DATE & TIME: 1000-1200Z 8 May – 1800-2000Z 9 May
BANDS/MODE: 80-10M CW
POINTS: 1 Pt. per QSO
MULTIPLIERS: Each EUCW club
EXCHANGE: A & B gives RST + Name + Club + membership #; C & D gives RST + Name
ENTRY CATEGORIES: A CU member, QRP; B = EU member, low power (100W max.); C = non-member, QRP; D = non-member, low (100W max.)
ENTRIES: 30 Days Werner "Joe" Jochem, DK7VW Wendelsborn 34 D-66606 St. Wendel, Germany
Electronic logs to: eucwfp@agcw.de
Rules at: http://www.agcw.org/eucw/eucwp.html

Click here for information on listing your contest in the next issue of WRO!

CONTEST: Flying Pigs QRP Club Run for the Bacon
DATE & TIME: 0100-0300Z 16 May
BANDS/MODE: 80-10M CW
POINTS: 1 Pt. non-member QSO; 3 Pts. FP member; 5 Pts. FP DX member
MULTIPLIERS: States/Provinces/Countries (X 2 if more than 50 members worked)
EXCHANGE: RST + State/Province/Country + FP #; (non-members give power)
ENTRY CATEGORIES: Single band; All band
ENTRIES: Logs submitted by online link, only.
See web page: www.fpqrp.com/fpqrprun.php

CONTEST: Manchester Mineira All-America CW
DATE & TIME: 1500Z 22 May – 2359Z 23 May
BANDS/MODE: 80-10M CW
POINTS: 1 Pt. QSO same country; 2 Pts per QSO, same continent, different country; 3 Pts. Per QSO different continent; 5 Pts. Per QSO, QRP, YL or member sta's
MULTIPLIERS: Prefixes – NA sta's count SA prefixes; SA sta's count NA prefixes
EXCHANGE: RST + Continent; CWJF members give RST + Continent + member #; YL's give RST + Continent + "YL"; QRP sta's give RST + Continent + "QRP"
ENTRY CATEGORIES: Single Op, single band; Single Op, all bands; Single op, QRP; Multi Op, Single XSMTR; South America; North America
ENTRIES: 30 July Cabrillo logs to: testcwjf@gmail.com
Rules at: www.powerline.com.br/cwjf/Regulamento_Ing.pdf

CONTEST: His Majesty, The King of Spain
DATE & TIME: 1800Z 15 May - 1800Z 16 May
BANDS/MODE: 160-10M CW
POINTS: DX sta's = 1 Pt. per QSO other countries, 3 Pts. QSO with EA sta's; EA sta's = 1 Pt. per QSO DX, 2 Pts. Per QSO EA sta's
MULTIPLIERS: Spanish provinces (52 possible) in each band
EXCHANGE: RST + Serial #; EA sta's give RS(T) + Province + Serial #
ENTRY CATEGORIES: Single-op, EA or non-EA monoband; Single-op, EA or non-EA multiband;
Multi-op, EA or non-EA
ENTRIES: 30 Days Online submissions only!
Cabrillo to: smreycw@ure.es
Rules: http://www.ure.es/contest/431-sm-el-rey-contest-english-version.html

CONTEST: CQ WW WPX
DATE & TIME: 0000Z 29 May - 2359Z 30 May
BANDS/MODE: 160-10M CW
POINTS: 1 Pt. Same Continent, 20/15/10M; 2 Pts. Same Continent, 160/80/40M;
3 Pts. Other continents 20/15/10M; 6 Pts. Other Continents, 160/80/40M; 2 Pts. NA sta's (same continent), 20/15/10M; NA sta's (same continent), 4 Pts. 160/80/40M
MULTIPLIERS: Prefixes
EXCHANGE: RS + serial #
ENTRY CATEGORIES: Rookie; Single Op - Single Band, QRP (<5W), Low (<100W), High, Triband/Single Element;
Single Op - All Band, QRP, Low, High, Triband/Single Element;Multi Op; Single-op, assisted;
Multi Op - 2 XMTR's; Multi Op - Multi XMTR's
ENTRIES: 1 July CQ WPX Contest, 25 Newbridge Rd., Hicksville, NY 11801. Cabrillo to: cw@cqwpx.com;
Forms and rules at: www.cqwpx.com/rules.htm

CONTEST: MI-QRP Memorial Day Sprint
DATE & TIME: 2300Z 31 May - 0300Z 1 Jun
BANDS/MODE: 160-6M CW
POINTS: 2 Pts. W/VE non-members; 4 Pts. DX non-members; 5 Pts. MI-QRP members
MULTIPLIERS: States/Provinces/DXCC
EXCHANGE: RST + State/Province/Country + member number (non-members give power)
ENTRY CATEGORIES: A = <250mW; B = 250mW-1W; C = 1W-5W; D = >5W
ENTRIES: 30 Days Hank Greeb, N8XX, 5727 11 Mile Rd. NE, Rockford, MI 49341-9502 E-mail: n8xx@arrl.org
Rules at: www.qsl.net/miqrpclub/contest.html

They're On An Aerial Mission: Kurt's Readers Write

Kurt N. Sterba

This month we dip into Krusty Olde Kurt's Mailbag:

More About Baluns

Warren Reese, WB6TMY, writes, *"If the coax is grounded at its PL259 (plug) to the rig, and the rig is grounded, is not the outside of the coax a vertical antenna resonant at 1/4 wave from the ground point? To put this another way, back in the days, we used to have charts in the handbooks on what length to make your balanced line so as to avoid 'antenna currents.' My proposition is that a balun might not be required since the impedance at the center of the dipole is low impedance and if the outside of the coax is at high impedance, no current will flow."*

Krusty Olde Kurt agrees. A quarter-wave grounded antenna will have high voltage and no current at its top end. Using Ohm's law (R = E/I): If I = 0, then R is infinite, or an open circuit. So all the RF current from the coax will flow into the antenna and none onto the outside of the shield. No balun is needed.

This is the same way a quarter-wave transmission line acts. You can think of it as a playground teeter-totter. If one end of the board is on the ground, the other end is high in the air. If one end of a quarter-wave line is shorted, the other end will be open circuit.

Unfortunately, your coax is rarely an exact quarter-wave. We usually cut it just long enough to reach from the antenna to the transmitter because that gives us the least line loss. Not only that, we often use the antenna on several bands so the quarter-wavelength will be for just one band. So Kurt advises using a balun on any balanced antenna.

The Solarcon A99 Antenna

James Patterson, NK8U, writes: *"Just wanted to tell you about an often overlooked antenna – the Solarcon A99. I put my first one up at only 30 feet in 2001 and proceeded to work over 100 countries on 10 meters in about three years using 100 watts. Just make sure you add the optional radial kit. In my opinion, this is the most fun-per-dollar on the market. It is a sturdy antenna, made in Ohio. No, I am not affiliated with them at all. I just think they are great!"*

Krusty Olde Kurt had not seen this antenna before because Antron does not advertise in ham radio magazines. It is promoted as a "CB base antenna," although it can be used in the ham radio 10-meter band, as NK8U has done.

A quick look on the Internet brought up its description and specifications: http://www.bellscb.com/products/antennas/solarcon/solarcon_A99_antenna.htm.

It is "a half-wave over a quarter-wave variable mutual inductance antenna for 10 to 17 meters," whatever that means. It is 18-feet-long, which is a half-wave on 10 meters. Where the other quarter-wave came from, only their advertising manager knows.

What makes Kurt livid is the stated gain of 9.9 dBi. There is no way this antenna has anywhere near that much

gain. First of all, the gain is expressed in dBi, the gain of an antenna that radiates equally in all directions – an antenna that does not exist but is useful for theoretical gain calculations.

If we express it in dBd (gain compared to a half-wave dipole, an antenna we all understand) you subtract 2.15 dB which gives a gain of 7.75 dBd. But it is a half-wave dipole, so its gain is zero dBd. The other 7.75 dB is a figment of the advertising manager's imagination.

To be fair about it, it is not only CB manufacturers who fudge their gain figures. It is widespread in amateur radio circles. If you have a catalog handy, check to see the stated gain of one of their antennas. Then check your latest copy of *QST* to find the ad for the same antenna. Most likely you will find that the gain is not stated. The reason for this is simple: QST will not publish gain figures unless the manufacturer proves the gain figures are true by providing them with field strength measurements or computer modeling using NEC or similar programs. If the gain figures are not there, the stated gain is the manufacturer's estimate. Believe it if you wish.

The antenna is tunable from 25 to 30 MHz by turning a ring on its outside plastic cover. Kurt thinks this a nice feature that leads to the antenna's popularity. There are two coils in the matching network that convert the high impedance at the end of the half-wave antenna down to 50 ohms to match the 50 ohm coax feed transmission line. Turning the ring moves a brass slug in and out of one of the coils. When the brass slug moves into the coil, it reduces the coil's inductance and tunes the antenna. This is the "variable mutual inductance" part of the specifications.

Some dealers, such as Universal Radio, offer a radial kit to go with it. Kurt recommends it. Many manufacturers claim that a half-wave vertical needs no radials. Kurt can tell you that it will work a lot better with them.

As N8KU's experience shows, you can work the world with this antenna when 10-meters is open. Just remember it is not because there is anything magic about this particular antenna. It is just a simple half-wave vertical that has some neat features such as a plastic tube enclosure that makes it easy to mount to a support. The advertising specifications are baloney, but don't keep the antenna from working just like any half-wave vertical with radials.

More About Radials

Richard Davis, W9ZB, writes: *"I know that it is recommended that a choke balun be installed on the coaxial feed line to an antenna at the antenna end, and I know that it is to impede the flow of RF down the outside of the coax shield. This certainly makes sense on a dipole, but my theory is that for a vertical antenna with buried radials and a buried coaxial feed line, a better idea is to put the choke balun at the end of the feed line where it enters the building. That way, it acts like another radial and a good one at that. My installation is done that way and it seems to be working well. What do you think about this idea?"*

Krusty Olde Kurt thinks that it is a great idea. It gives you an extra radial for free (you can never have too many radials). But more importantly, it will stop any additional RF that may impinge on the coax from the antenna's radiation.

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

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