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WORLDRADIO

Year 27, Issue 10 April 1998 • $1.50

Storm spotter. . .
finds his path in aftermath

(Ed. On 19 April 1996, Lonnie McVaigh, KB9LUN, was parked in front of Kelly Miller's residence. Much to Kelly's relief, Lonnie was on duty, looking for tornadoes, on his first assignment with ARES. Instead of running from the tornado he had spotted, and reported, Lonnie chose to become a hero to the Miller family, and to the Amateur Radio community. This is his story.....)

Herald & Review/Herb Slodounik

Lonnie McVaigh, KB9LUN

Long before a tornado pushed a chimney on top of him, Lonnie McVaigh, KB9LUN, was in a world of hurt. His back and legs ached from 15 years of shoveling corn at the A.E. Staley Mfg. Co.

He tried his best to work a daily job elsewhere, but he was physically unable. He had to live off public assistance while raising eight children — five adopted — with his wife.

McVaigh tried to be the best father he could. He volunteered with his church.

His prayers led him to buy a hand-held Ham radio. Though he walked with a cane, McVaigh could spot storms and radio them in. Still, "I felt like I was a deadbeat," McVaigh said.

On April 19, 1996, McVaigh spotted a tornado near the intersection of Wyckles Road and Center Street. McVaigh said he could have outdriven the tornado. Instead, he stayed and took shelter in a nearby house with Kelly Miller and her two sons, to make sure they were OK.

The day after the tornado, McVaigh awoke in Decatur Memorial Hospital with crushed hips, a shattered pelvis and numerous electronic monitors attached to his body. When he came to his senses and started thinking, he panicked.

"I said, you'd better unhook me, McVaigh said. "There's no way I can pay for this."

"The lady said, 'There's no way to put a price on the lives you saved.'"

That's when it clicked for McVaigh.

"I'm really happy that I'm doing what I can do now," said McVaigh, who can now walk with help from a walker.

After Easter Seals built a ramp onto his house, McVaigh decided to help the charity in its fund-raising.

And though he is no longer a storm spotter, McVaigh has installed communications equipment in his house. The equipment will allow him to speak with the National Weather Service, telling forecasters what storm spotters are witnessing.

McVaigh, 41, said he wants to focus on being a good parent.

"I'm happy," he said. "I really think I'm doing what God intended me to do." — *reprinted with permission from the* Decatur Herald & Review

Update on Lonnie

After exchanging several e-mail messages with Lonnie, ***Worldradio*** can provide the readers with an update on Lonnie's condition.

Lonnie was injured by a chimney and tree that fell into the basement where he was seeking shelter from the tornado.

"The chimney falling on me broke my pelvis into nine pieces and fractured both hips. My right hip could not be saved, and I had a complete replacement. They used nine or ten pins and some sort of bracket to put my pelvis back together. I have permanent damage due to a couple of nerves that were severed in my right leg. I have recovered to the point where I can stand and walk with crutches for up to a few hours at a time. I had already had two surgeries on my back and a lot of nerve damage in my left leg from seven years ago.

"I received Congressional, National Weather Service, County, City, ARRL and tons of other recognition. All of the members of the group of people who were involved should have been recognized as I was. We were all out there performing a public service as a team.

"My life is wrapped around Amateur Radio and serving God. My wife Melissa, KB9MDF, and I are foster parents and have eight children (three of our own). We keep in constant communication using our radios. She is the one who called 911 for the ambulance that night. I am now an ARRL Official Emergency Station functioning as liaison between Macon County ARES and the NWS out of my home during weather net activation. I am active in Army MARS and on call with Macon County Emergency Services (ESDA) in my capacity of communications and as part of our ARES team.

"I am still on Social Security Disability, active in my church and sit on the Board of Directors of our local Easter Seals Society as a volunteer."

NEWSFRONT

Worldradio

Some information has been supplied to *Worldradio* **Newsfront** courtesy of *Newsline*.

Research raft carrying Amateur Radio lost

A research raft carrying Amateur Radio station HLØJQT/mm was lost 24 January in heavy seas off the coast of Japan. Japanese Maritime Safety Agency authorities responded to a distress call that the crew was extremely exhausted. It's not clear if the distress call went out on Amateur Radio frequencies, however. Bodies of three of the crew members were recovered, but a fourth was missing in the frigid waters.

The 23-foot research raft, which had a sail but no engine, was attempting a voyage from Vladivostok, Russia, to Pusan, South Korea, when it capsized in stormy seas. News reports from South Korea said the four-man crew, led by 48-year-old skipper Lee Duk-young, was attempting to retrace the sea route linking Palhae, an ancient Korean dynasty that originated in northeast China, to the Korean peninsula.— *ARRL*

YLRL Web site moves

The Young Ladies' Radio League Web site has moved to: http://home.earthlink.net/~tenmtryl/ylrl/. The pages will be redesigned and new ones will be added, including information on the upcoming convention, how to join YLRL, and links to other sites. For more information, contact YLRL Editor Margaret Dunn, KC7LXS, at her new e-mail address: tenmtryl@earthlink.net.

Possible P3D launch in May

AMSAT's Phase 3D Amateur Radio satellite could be in orbit this spring. According to reports from the Ham radio space organization, Phase 3D Project Leader Karl Meinzer, DJ4ZC, has met in Paris with European Space Agency officials to discuss the possibility of including Phase 3D as a payload on the third test flight of the Ariane 5 booster.

Ariane 503 is expected to be launched sometime in May. AMSAT admits that getting their satellite manifest to be launched on that flight is at best a longshot. If Phase 3D does get to fly on Ariane 505 it could be operational sometime next summer. — *AMSAT-NA / Newsline*

Foxhunt weekend

CQ VHF magazine has designated the last weekend in April as the "*CQ VHF* National Foxhunting Weekend," and is encouraging Ham operators and radio clubs to conduct a hidden transmitter hunt at that time. Unlike traditional Amateur Radio contests, there are no standardized rules, log sheets or reporting forms. There is no license requirement to receive, so everyone can participate.

Foxhunting may be done by car or on foot, Amateur Radio groups are encouraged to use either one or both during the National Foxhunting Weekend. Foxhunting is fun and a challenge. It also teaches important direction-finding skills that may be called upon in searching for a downed airplane or lost hiker using an Emergency Locator Transmitter, or for tracking down sources of interference.

Groups participating in the National Foxhunting Weekend are encouraged to send reports of their activity directly to Joe Moell, KØOV, at P.O. Box 2508, Fullerton, CA 92837, or via e-mail to: homingin@aol.com. E-mail reports may also be sent to *CQ VHF* magazine at: cqvhf@aol.com.

KB8GGK helps heart attack victim

Out enjoying the last day of deer hunting season last November, John McClellan, KB8GGK, heard an urgent call over the Cherryland Amateur Radio Club repeater near Traverse City, Michigan. Traveling through the area from out of town with his wife, Ken McClurken, KB8VG, reported he was having chest pains and needed directions to the nearest hospital. McClellan directed the couple to a local hospital, while Jane Newton, KC8HJQ, who'd heard the call, dialed 911. Bill Shenk, W8PIT, of the Cherryland ARC, reports McClurken was released from the hospital a week later and was recovering at his home in Grandville, Michigan. — *ARRL*

Youth Forum seeks participants

Carole Perry, WB2MGP, says that she is in the initial planning phase of her annual Youth Forum on May 16th and needs young Hams to be in it.If you are a young Ham under the age of 18 and are planning to be in Dayton on Saturday 16 May, or if you know of a young Ham that

would make a good forum presenter please contact Carole directly. Her telephone number is 718/983-1416 and she is available most evenings Eastern time. If she is not there please leave your name, phone number and the best time for her to call back. Or you can send e-mail to her at wb2mgp@ix.netcom.com. — *Newsline*

Date slips for next SAREX mission

The launch date for the next Shuttle Amateur Radio EXperiment (SAREX) payload, aboard STS-93, has slipped until late this year. STS-93 originally was scheduled to go up in August, but its primary payload will not be ready by then. The five-day mission is the only SAREX mission scheduled during 1998. But another flight, STS-95 in October — the flight that will carry once and future astronaut and U.S. Senator John Glenn into space — has been under consideration for several months as a possible SAREX flight, according to AMSAT Vice President for Manned Space Programs Frank Bauer, KA3HDO. Nothing has been confirmed yet, however. — *ARRL Letter*

Morse code book now on the Internet.

The second edition of the extensive book "The Art and Skill of Radio-Telegraphy" is now available on the Internet at the Morse Code Enthusiasts of Scotland website. The address is: http://www.joates.demon.co.uk/megs/

I took the time and looked at the book, and I find it to be very well written and quite informative. It covers lots of CW history, tips on learning the code and lots of help in improving your CW skills. It is well worth seeing! — *Rick McCusker, KO6DJ, Editor*

New York taxi war

Between 1,500 and 2,000 of the 11,800 taxis in New York City have modified CB radios, many of which are operating in the 10 Meter ham band. So says Gerry Smith, W6TER, writing in a recent edition of the Hudson Division Loop electronic newsletter.

According to Smith, the primary reason that cabs like the modified radios is that the FCC allocated 40 CB channels are crowded. Also, the taxis like to group ethnically. The result is that many of the modified "taxi channels" fall in the low end of our 10 Meter amateur band.

At its recent meeting, the ARRL's Board of Directors acknowledge the problem and the actions by the FCC and the New York City Taxi and Limousine Commission to combat it. But the Board wants agencies to do even more. The ARRL leadership is urging the confiscation of equipment and fines to drivers who fail to comply by removing any and all illegal transmitters from New York City cabs. —*Via Hudson Division Loop, ARRL; Newsline*

Virginia Hams asked for help on tower bill

Hams in Virginia are being asked to rally behind a statewide bill to regulate the placement of Amateur Radio antennas. The measure, Senate Bill 480 (SB 480) was introduced 26 January by State Sen John Edwards of Roanoke.

The bill would amend the Code of Virginia to include the essence of the PRB-1 federal preemption. It would require local ordinances involving the placement, screening, or height of antennas to "reasonably accommodate Amateur Radio antennas" and "impose the minimum regulation necessary."

The bill, if approved by the Virginia General Assembly, would prohibit localities from restricting Ham antennas to less than 200 feet above ground, restricting the number of support structures. or requiring restrictive variances "beyond reasonable and customary engineering practices" unless the antenna "clearly represents an unreasonable risk to human health or life."

Bob Ham, KK4IY, says Hams can track the progress of the bill at: http://leg1.state.va.us/981/bil.htm (enter "sb480" at the prompt). Hams can voice an opinion on the bill by calling 800-889-0229 and leaving a message for their Delegate or Senator.— *ARRL Letter*

March of Dimes Award to W2GZB

An Andover New Jersey amateur operator has received a prestigious award from the March of Dimes. On 12 January, Daniel J. Murphy, W2GZB, was presented the philanthropic organizations Franklin Delano Roosevelt Award in recognization of his volunteerism.

Murphy is a former president and an active member of the Sussex County Amateur Radio Club. He routinely dedicates himself to many facets of the hobby including volunteering for public service activities. — *ARRL / Newsline*

Congratulations to Jerzy M. Gizowski, N3FIP, winner of a $200 gift certificate (redeemable from MFJ). His name was selected at random by the computer from the ***Worldradio*** subscriber list. Check here next month to see if your name has been selected.

Worldradio
April 1998

News & Features

Departments

Next month's columns will include Amateur Satellites, County Hunters, RFI & You, Traffic, Wires & Pliers, Positively CW, and Youth Forum

Worldradio

April 1998 **Year 27, Issue 10**

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Published monthly by *Worldradio*, Inc., 2120 28th St., Sacramento, CA 95818 USA; 916/457-3655.

Subscription Department: *Worldradio*, 1901 Royal Oaks Dr., Ste 190, Sacramento, CA 95815; 800-366-9192.

Periodicals postage paid at Sacramento, CA & additional offices.

POSTMASTER: Send address changes to *Worldradio*, Inc., P.O. Box 189490, Sacramento, CA 95818 USA.

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Our goal is to be a valuable resource of ideas and experiences beneficial to the Amateur Radio community. We publicize and support the efforts of those who bring the flame of vitality to this avocation. As readers, you are participants in an alliance of active radio amateurs concerned with reality, using radio as a communications tool to develop the skill, quality and full potential of Amateur Radio.

We emphasize the positive aspects of this great activity, and desire your contributions dealing with dramatic, personal and humanitarian uses of Amateur Radio. Articles for consideration may be submitted through the U.S. Postal Service or e-mail to n6wr@ns.net

Worldradio is an independent magazine not affiliated with any other firm, group or organization.

SUBSCRIPTION RATES: $15* one year; $28* two years; $41* three years; $187* Life; *$10 extra per year for surface mail delivery to non-U.S. ZIPs. Please remit international postal money order. IRCs will be accepted.

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Publisher's Microphone

Throughout all the English-speaking nations in the literature classes, the readings from Shakespeare are being replaced with readings from *Worldradio*.

Helping make that possible are the latest to join the SuperBoosters (Lifetime Subscribers):

- **John Zimmatore, AD4ZH**
  Atlanta, GA
- **Larry Kwant, KF8YY**
  Melbourne, FL
- **Melvin Simon, WD5CAE**
  New Iberia, LA
- **Nathan Peterson, KE6QO**
  Mesa, AZ (a gift from William Hillendahl, KH6GJV)

•

The recent rash of terrible weather across the country demonstrated again the wisdom of the Boy Scout motto, "Be Prepared."

How many of us have a 12V battery in our radio shack so we could operate our rigs in time of a power failure?

How many of us have a VHF Yagi so as to extend the range when the repeater is no longer on the air?

•

In the aftermath of emergency situations, we often ask the participants to write an article in order to help others who may later find themselves in a similar situation.

I can't count the number of times, while standing in our booth at a Ham convention, that someone has answered my request with, "I'm not a writer."

Don't worry about it! We have a young lady here whose job is to take all submitted articles, grab the paper by one corner, and shake it violently. That way all the unnecessary commas fall out of the article and onto the table. She then takes those commas and puts them in the right places.

Unfortunately, too many people think that writing an article calls upon some special and esoteric skill. No, not at all. Just look at it as writing a letter to a friend.

•

You could start with a short article. We'd like to give the various nets more publicity. Write about your net and possibly more amateurs will show up and join in. There's a real feeling of camaraderie among members of some nets. It's nice to be a part of something.

How about a product review or a book review? Tell others what you feel about a piece of gear or a book you've read. I've heard that the new ARRL book about 160 Meters is just great. Has anyone read it who would like to comment at some length?

•

Using our WR Staff ARC call sign WR6WR, I was in the four-hour Sprint contest which is sponsored by the National Contest Journal. That one is a real radio workout!

If you call CQ and another station contacts you, you must relinquish the frequency and move 5 kHz before calling CQ again, or 1 kHz before answering another station's CQ.

If you answer another station's CQ, the frequency is yours until another station works you and then you have to move. It's a very busy four hours. .

•

Skip Westrich, WB8OWM, Canton, OH, who served our country in the U.S. Air Force, sent an article from *Air Force* magazine. On page 20 of the February 1998 issue was this: "the Hanoi Hilton — within its walls some had endured eight years of torture, incessant interrogation, confession coercions and near starvation. Communicating by tapping Morse code on the walls, the POWs were able to offer each other emotional and spiritual support, and present a united front to their Communist captors."

Skip had highlighted the above paragraph and underlined "tapping Morse code on the walls".

•

I'd like to introduce our new editor, Rick McCusker, KO6DJ. Rick was fortunate enough to have Uncle Sam send him to Radio Operator school where he mastered CW. Then he worked at various shore stations and on board ship assisting in the effort which the U. S. Coast Guard does so well, rescuing sinking ships.

•

For those who go to the big Ham bash at Dayton, a worthy side trip would be to the gigantic Air Force Museum at Dayton. It is entirely maintained by donations and volunteer help. While the aircraft are of great interest, don't miss the touching memorials in the park which were placed there by the various AF unit associations.

•

Don't forget now, we're looking for an article from you. And possibly someone has written a good book that would be of interest. — *Armond, N6WR*

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I have Bill's radio

GEORGE C. COOK, AA3JU

I have been reading some of the mail regarding the SK ZX6DX and his widow. One stuck out that said maybe those letters are just in a box someplace. And then I remembered that I have Bill's radio.

Oh, you probably don't know Bill Messinger, W3VMH. He really wasn't much of a DXer from what I am told. Actually I never met him either. He died before I got the chance. What Bill really liked, I am told, is 160 Meter and 80 Meter AM.

Well, after he died, lots of nice young Hams came along and bought up the more modern of Bill's gear real fast. But on his desk was HIS radio — a behemoth Viking Valiant and a Hammarlund HQ110 along with homemade relay boxes and wires of every sort. Nothing on the radio is stock and lord knows he didn't document any of the changes. After all it was his radio.

Well, I met his wife the day I came to buy Bill's radio. Money wasn't important to her really. She was going to donate it all to charity anyway. She apologized for not being able to tell me much about the gear and just wanted to know I would give it a good home. She also wondered if I would turn on the big radio; even static would be OK. She said this from the door of Bill's shack. You see, she could not bring herself to enter that room. She just wanted to hear that radio one last time.

So I fired up on the AM freqs of 75 phone around 3.895 and told the world that Bill's radio was on the air and that it was going home with me. And when I was done working some fellows in NJ and NY, I shut her down and started to disconnect her. Damn, what a shock I got from the power supply. Guess the rig wanted me to know that I would never really be more than a curator.

And in the other room his wife just cried and cried. I tried to console her, but it was for naught. You see, she was never going to hear that sound again. She missed the man she loved very much. I don't think she cares a whit about Ham Radio or QSL cards or much of anything else. You see, her husband of all her life, her best friend in the whole world, was gone forever and she would never again bring him a cold 807 or yell at him for ripping up the TV or be awakened far too early by an alarm on a Hamfest Sunday.

So I have Bill's radio and really that's the whole story, save to say I think I will fire her up this week. And maybe I will give Mrs. Messinger a call and see how she is doing.

Two Amateurs to be on Glenn flight

Two Amateurs, Scott Parazynski, KC5RSY, and Pedro Duque, KC5RGG, of Spain, will be among an international crew this fall when U.S. Senator John Glenn gets his second chance at space travel. The STS-95 mission will mark the third shuttle flight for Parazynski, a medical doctor who trained for a stay aboard Mir but had to be reassigned after it was determined he was too tall to fit the Russian space suits worn aboard the Soyuz.

It's still not known at this time if the Shuttle Amateur Radio EXperiment (SAREX) payload will be aboard STS-95, scheduled to go up in October. The launch date for the only scheduled SAREX mission, STS-93, has slipped from August to December. — *ARRL Letter*

Fire help

Amateurs furnished assistance during a recent structure fire in White Plains, New York. Alan Crosswell, N2YGK, reported the local Amateur Radio Emergency Service received a request from the American Red Cross for communications at the fire scene.

Amateurs established communications from the incident point to three local churches that were being used as service centers. Additional communications were set up at White Plains High School which served as a shelter for those displaced by the blaze. Ninety families were affected by the fire which claimed one life and is blamed for ten injuries. — *N2YGK, N2DB; Newsline*

NYC-LI SM recall

Len Buoniauto, KE2LE, duly elected Section Manager for the New York City/Long Island area, will be facing a recall election. Joe Tomasone, AB2M, says he has received word from the ARRL's Dave Sumner, K1ZZ, that the Election Committee has been asked to conduct a recall vote dealing with KE2LE.

Tomasone and a number of other amateurs in the league's New York City/Long Island section started the recall proceedings. They say Buoniauto ignores many of his duties and makes decisions they consider a detriment to the Section and ARRL programs within the section. They also claim he refuses to answer correspondence and communications from Section members wishing to discuss these issues.

So far there is no date announced for the recall vote to begin. Also, no word from KE2LE as to how he plans to go about fighting to keep his office. — *AB2M; Newsline*

FCC computer failure

The FCC's Amateur Radio licensing computer system has been down, and, as of ***Worldradio's*** press date (23 February), has just come back on line and is up and running again. Bill Pasternak, WA6ITF, says the regulatory agency's computer system failed 10 February.

The situation has affected the FCC's Gettysburg, PA, license processing facility, and has frustrated those who have been hoping to learn their new call signs or updated licensing status. The on-line FCC public databases on the Internet also have been affected.

Sources at the FCC attribute the situation to a combination of problems. The FCC's computer system has failed before, but not for this long. — *FCC, ARRL, Newsline*

All-tube PC astonishes club!

LORD EUPHELL FORRITT

My experience has been, to a large extent, with vacuum tubes. When I attended engineering college, solid state devices were very new technology and information about them was difficult to obtain. In my quest for hands on experience with these newfangled PCs, I decided to incorporate the old with the new.

I first decided on a name that would be descriptive of my goal and decided on 04-01. The tube I chose has the advantage of consuming low power and at the same time, has two triodes within one envelope. I decided on the 12AX7. This is a very basic duo-triode with adequate power handling capability and is comparatively cheap to buy.

The parameters of the computer itself had to be considered as well. If one is to have adequate RAM, it is necessary to provide for at least 8 MB running up the number of 12AX7s needed. Therefore, I placed an order directly with a factory in the small Baltic country of Krakup Wackout. The President, Ised Nokitoff, was flabbergasted at the size of the order. He acted like no one had ever placed an order for four million 12AX7s before! I also informed him that I would be needing sockets for them as well. Since I have no experience with etching printed circuits, point to point wiring will be necessary and at this time, my store-bought computer does not have the capacity to calculate the number of solder connections or the amounts of solder needed for the project. I contacted an engineering firm to assist with the calculations, but the person who answered the phone must have been watching a rerun of "Home Improvement" and was laughing so hard that all I could get between his fits was something about "must be (ha ha) related (ha ha ha) to Tim!"

To assure that there is adequate power, I contacted the power company and had some trouble getting across to them the need for 105,000 volt feed mains to reduce current load. They referred me to Blunderbuss Power Administration. Those folks need to get their phone system repaired. I kept getting a lot of what sounded like profanity and cut off.

I calculate the need to add some space to the shack, probably 350,000 square feet. To handle the heat, I will add some exhaust fans. I believe a capacity of 200,000 cubic feet per minute will handle it. The flow will be directed along the beach to enhance the off season temperature.

In design calculations, it seems that screen redraws for the 04-01 will take about 6.31 minutes, time to allow the operator to duck out for a cup of coffee.

It appears that the cost of the 04-01 will come in at about $23 million and should be ready by April 1 of 2004. If you have information about where I can obtain a wall wart of the proper voltage and current rating please let me know (150 VDC at 15 MegW or better).

Happy April Fools Day — Jim Keightley, K7NPS

Wisconsin Novice Net

The WNN meets every night at 6 p.m. (Central Time) on 3.723 MHz. This is a traffic net and remains in session until all who desire to check in have done so. This is a slow speed CW net designed for Novice licensees to practice their skills at CW and traffic handling, but is open to all licensees.

A very nice WNN handbook is available by sending a 6 X 9 SASE with 55¢ postage to: Rob Wilcken, KA9GBG, P.O. Box 134, Thorp, WI 54771-0134

E-mail:
w4zc@macconnect.com

WRC-97 final acts

The Final Acts of the 1997 Radiocommunication Conference, WRC-97, signed in Geneva 22 November, are now available. These acts include changes to the international table of frequency allocations, new and revised resolutions and recommendations, and changes to the appendices to the international radio regulations — including the revised plan for the Broadcasting-Satellite Service in Regions 1 and 3.

A copy of the WRC-97 Final Acts now is available for inspection and public review at the FCC's International Reference Center, 2000 M Street NW, Room 102, Washington, DC; 202/418-1492. You can buy a copy of the Final Acts from the International Telecommunication Union, Sales and Marketing Service, Place des Nations, CH-1211 Geneva 20, Switzerland; tel 011-41-22-730-6141; fax 011-41-22-730-5194 or see the website at: http://www.itu.ch/publications. For more information, contact Audrey L. Allison, International Bureau, Satellite and Radiocommunication Division; 202/418-0733. —*FCC*

Regulatory items from the ARRL board

In response to repeated member complaints of malicious interference and the use of foul language on the amateur bands, the Board established an Enforcement Task Force to push for better rules enforcement from the FCC. Vice President Joel Harrison, W5ZN, will chair the 10-member panel. Other members include President Stafford, Directors Joe Falcone, N8TI, Frank Fallon, N2FF, Kay Craigie, WT3P, Fried Heyn, WA6WZO, and Marshall Quiat, AGØX, Vice President Hugh Turnbull, W3ABC, General Counsel Chris Imlay, W3KD, and Field Services Manager Rick Palm, K1CE. The Task Force will oversee and work closely with the Amateur Auxiliary and make recommendations to the Board on enforcement issues.

On a 11-4 vote, the Board voted to NOT draft a petition to the FCC to simplify the Amateur Radio license structure and increase HF privileges for Novice and Technician Plus licensees. The plan would have asked the FCC to halt issuance of new Novice licenses while continuing to renew existing licenses; rearrange current HF CW allocations for Novice and Tech Plus licensees to provide expanded HF phone frequencies; add 75M and 15M phone privileges for Tech Plus holders.

Rejection of the plan completes the Board's consideration of a committee proposal that it first received at its January 1997 meeting, and that had been the subject of membership study and comment during the year.

On a 10-5 vote, the Board declined to refer to the Executive Committee for study a proposal to ask the FCC to reduce the number of license classes to three.

Are FM spectrum restrictions needed?

The proponents of non-FM point to point communications say that formal restrictions are needed to keep FM users from causing interference to the users of other modes on our VHF and UHF bands. FM interests are already vowing a fight to keep access to all the VHF and UHF spectrum that they now have.

Cross-mode interference has always been a problem on any Ham band. But now there appears to be an increase in the incidence of both inadvertent and purposeful interference to weak signal, EME, local SSB, CW and even AM contacts on the 2-Meter, 1.25-Meter and 70-Centimeter bands.

The non-FMers say the users of FM are ignoring established ARRL-approved band plans — that they

Amateur Radio Call Signs

The following shows the last call sign in each group to be assigned for each VEC Region under the sequential call system as of 02 February 1998.
For more information about the sequential call sign sytem, see Fact Sheet PR5000 #206-S dated August 1996, or contact the Federal Communications Commission, Consumer Assistance Branch, 1270 Fairfield Road, Gettysburg, PA 17325-7245, toll-free 1-888/225-5322.

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØHF	KIØLO	++	KCØCRE
1	AA1TE	KE1JE	++	KB1CIT
2	AB2EX	KG2NO	++	KC2CYG
3	AA3QT	KF3AW	++	KB3CBT
4	AF4HV	KU4OF	++	KF4VRS
5	AC5OX	KM5OU	++	KD5DFM
6	AD6EJ	KQ6UM	++	KF6PIL
7	AB7XF	KK7LT	++	KD7AKT
8	AB8BV	KI8FA	++	KC8JFJ
9	AA9VK	KG9MI	++	KB9SAO
N. Mariana Is.	NHØB	AHØAY	KHØGV	WHØABI
Guam	++	AH2DF	KH2TA	WH2ANV
Hawaii	NH7F	AH6PF	KH7IN	WH6DEN
Amer. Samoa	AH8P	AH8AH	KH8DL	WH8ABF
Alaska	ALØH	AL7QY	KLØLN	WL7CUQ
Virgin Is.	++	KP2CM	NP2JX	WP2AIJ
Puerto Rico	NP3S	KP3BE	NP3TS	WP4NNP

++All call signs in this group have been issued in this district.

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are popping up wherever they please and destroying the ability of other Hams to enjoy their modes.

Some FMers say it's the utility of FM in day-to-day communications that makes it so valuable to every Ham. Regardless of the frequency being used, as long as it's one that's legal in the FCC's Part 97 rules.

Other FM enthusiasts are going a lot farther. They are saying they did not write the bandplans, they are not members of the ARRL and they cannot be forced to abide by them.

The ARRL Board of Directors is expected to at least look at the problem of FM incursion into what has traditionally been non-FM spectrum at its first meeting of 1998.

(Ed: See "Regulatory aspects of the ARRL Board meeting," above, particularly the statement that "the ARRL also will ask the FCC for a declaratory ruling to put teeth into the voluntary band plan concept.")

Australia seeks LF band

Australia is considering a new Ham band in the low-frequency spectrum below 200 kHz. The move follows the European allocation of 135.7-137.8 kHz by the Conference of European Post and Telecommunications (CEPT). General class Hams in New Zealand have been allowed to use 165 to 190 KHz on a non-interference basis since 1990. Australian Hams have had to get special permission to operate there.

For ionosphere enthusiasts

An item in the October 1997 ITU News says that scientists using the joint European Space Agency/NASA Solar and Heliospheric Observatory (SOHO) spacecraft have discovered "jet streams" or "rivers" of hot, electrically charged gas, called plasma, flowing beneath the surface of the sun. They also found features similar to trade winds that transport gas beneath the sun's fiery surface. These new findings will help them understand sunspot cycles and associated increases in solar activity that can cause power and communications disruptions.

Essay contest winners

Following is the essay of the first place winner of ***Worldradio***'s essay contest, "What Amateur Radio means to me." Judging was done by a panel of four amateurs reading the essays, not in a meeting, but at separate times. They ranked the essays (5 points for the one they liked best, 4 for the next, 3 for the next, etc.) and the cumulative score determined the final ranking. It was close. The final results are:

•First Place: LIFE subscription•
Anton E. Langhammer, W1LDL, Warwick, RI
•Second Place: Three-year extension•
Joe Meehan, AA1KF, Litchfield, ME
•Third Place: Two-year extension•
Dick Kelly, W6BKY, Ventura, CA
•Fourth Place: One-year subscription•
Joseph A.Valasek, K3MRT, Ford City, PA
•Honorable mention: A *Worldradio* cap•
Dave Evison, W7DE, Palo Alto, CA

The remaining winners' essays will be published in subsequent issues. We thank all who entered. All entrants are winners because they feel deeply about what Amateur Radio has done for them. How fortunate they are!

What Amateur Radio means to me

A. E. LANGHAMMER, W1LDL

Amateur Radio is a true "fraternity," judging members not by age, sex, race, finances, country of residence or politics, but by operating ability, "fist," cleanliness of signal, technical knowledge or willingness to serve during emergencies. Consider myself. Beginning as a teenage SWL, then becoming an interested would-be Ham signing up for a class taught by a volunteer instructor.

He took sick. His students met and I was "elected" to bone up, stay one lesson ahead and lead the group (and myself) to our licenses. I succeeded.

The great hurricane of 1938, six months after my licensing, provided a classic opportunity for Ham Radio to serve humanity around us by providing the only communication in the stricken area for two weeks.

What a baptism into Ham Radio!

My transmitting equipment has always been "home grown" — the essence of "Amateur Radio." ECA circuitry fascinated me, and I quickly worked out a clean, chirpless oscillator keying for break-in operation, and was forever hooked on high speed code, joining the Army Amateur Radio System and eventually being assigned a special call sign (WLGK) for net operation outside the amateur band.

Field Days, Sweepstakes, DX (Europe on 40 Meters with a 40-Watt rig!); it all fell into place. Then, still a mere 18 years old, there I was, Secretary of the Providence (XT) Radio Association, the second oldest radio club in the entire country.

Came 1941, enlistment in the Signal Corps, finishing (with my Ham background) a three-month course in three weeks, and being assigned to the Signal Corps School instructional staff one week before Pearl Harbor.

Eventually New Guinea, the Philippines, and with my Ham Radio background now bearing a military polish, setting up and staffing a school to teach communications to the Philippine Army.

Discharge, the phone company television and finally sales manager in charge or electronic systems sales for a local distributor. A lifetime in electronics had started with Ham Radio!

Poor Morse code skills = $10,000,000 damage

On the night of 14 October 1996, the aircraft carrier USS *Theodore Roosevelt*, and the cruiser USS *Leyte Gulf*, were engaged in pre-deployment drills and tests off the Atlantic Coast. The *Roosevelt* was testing its Challenge Athena communications system, which was getting interference from the ship's radar system. At the same time, the *Roosevelt* was also testing its propulsion systems and conducting electric power shifts — which caused communications gear to cease operations at times. Part of the propulsion system tests included putting the engines astern for long periods of time.

The *Leyte Gulf* was trailing the Roosevelt at a range of about 4,000 yards, and had not been informed of the tests being conducted on the *Roosevelt*. Because the communications systems on the Roosevelt were not able to be used, the two ships were using flashing light to exchange messages, a method used in yesteryear's Navy, but apparently a lost art today. It took 25 minutes for one message to be received and passed on to the bridge. Flashing light messages are sent using Morse code, and the text of the message that was received was garbled.

At 2:44 a.m., the *Roosevelt* went to "Emergency Back Full" on its engines and was going astern at 17 knots. At 2:49 a signalman aboard the *Roosevelt* started to send a message that said, "My engines are astern." The *Leyte Gulf* had not been told of this maneuver and the officer of the deck was confused by the movement. After recognizing the danger that was approaching, the *Leyte Gulf* also went to "Emergency Back Full" on its engines, but it was too late to avoid a collision. The *Roosevelt* and *Leyte Gulf* collided at 2:52 a.m.

The result? Over $10,000,000 in damage to the two ships. Fortunately, there were no deaths or serious injuries involved.

The Board of Inquiry results stated that 25 minutes to deliver one message by flashing light using Morse code was unsatisfactory. — *Jack R. Main, W4YCZ, and various sources.*

Phone Lines Cut

— Hams provide comms at Health Center

FRANK HASKINS, KE6LHX

On 10 October 1997, around 0900, Margaret, KE6FBP, was trying to use the phone patch, and was having no luck. I always listen closely to hear if someone needs help when the phone patch is unsuccessful in case it is an emergency.

Margaret called out to see if anyone knew the reason the phones were out in Redway. I tried to open the 146.79 phone patch and was able to call Jack and Stan at the local phone company. Stan was able to tell us that the phone line had been cut, and that service in and out of Redway could be down for a few hours or less. Margaret and I discussed the fact that the California Highway Patrol had a radio system, but the Redwood Rural Health Center could have a need for communications. Someone could be jeopardized should the Health Center need to call the hospital or anywhere.

Margaret Sisk, KF6FBP, went down to the Health Center. Nancy Peregrine, KB6LAD, called KMUD and had them announce that anyone needing the Health Center in Redway should call the hospital instead. Ben Richard, KF6CYM, checked the phones in Garberville and called in to say that they were working. Frank Haskins, KE6LHX, said he was on his way to relay from the hospital Amateur Radio system or with his HT.

Teresa Green, KF6KBU, checked in from the hospital, and though she had to resume her normal duties at the hospital, she was able to give Frank a better picture of what to expect. Joe Cardoza, KA6ROM, said that he was at the hospital and established communications with the Health Center via the SHARC Club 146.79 repeater.

Joe asked Margaret to establish a simplex frequency of 146.580. Margaret could not at that time, so Frank diverted to the Health Center. He arrived and found Margaret and they tried to establish simplex contact. Margaret's HT was not able to make the trip to Garberville. Though there was no extreme traffic to handle, everyone took time out of their busy day, just to be sure that if an emergency should arise, there would be Hams In Service!

— *Southern Humboldt Amateur Radio Club "SHARCbites"*

1998 AMSAT annual meeting and space symposium

The three-day 1998 AMSAT Annual Meeting and Space Symposium will kick off October 16 in Vicksburg, Mississippi. The Vicksburg Amateur Radio Club is this year's host.

The deadline to make room reservations is September 14, 1998. The Park Inn International, site of the meeting will alsoprovide shuttle transportation service between Jackson International Airport and Vicksburg. Conference registration information will be ready for distribution in July. A call for papers will go out next month.

Room rates for the conference will be $52 single and $62 double with a complimentary breakfast buffet and evening cocktails. For room reservations, call the Park Inn toll-free at 800/359-9363 or 601/638-5811.

Additional information about the 16th Space Symposium and Annual AMSAT Meeting— including airline access to Vicksburg—is available at http://pages.prodigy.com/DXHF93A. — *AMSAT News Service / Eddie Pettis, N5JGK; ARRL Letter*

Chubasco – *the net for cruisers*

—Reprinted with permission from Latitude 38 *magazine —*

Of all the various radio nets active in Mexico — and when you include SSB and VHF nets, there are dozens — Chubasco is one of the most listened-to by cruisers, which is not that unusual once you realize it was designed specifically by and for them.

The origins of the Chubasco Net go back to the early '80s when a retired Los Angeles County Fire Captain named Brent Bogdanski and his wife were living in Guaymas, Mexico. Though not sailors, they soon came to be known to boats passing through. "They'd give us dinner aboard, we'd give them showers and rides to town," remembers Brent.

Bogdanski was also an Amateur Radio operator, back in the days before Mexico even issued licenses for it. Although he received the second provisional Amateur Radio license ever issued in Mexico, for years boats coming into Mexican waters were all 'bootlegging' — operating their Ham sets illegally.

Still, business got done, usually through the Baja Net, the main 'long distance' net for passing information back and forth between the U.S. and Mexico. There were a lot of features about the way the Baja Net worked that didn't work particularly well for cruisers, but up until the mid- '80s, it was all they had.

In the mid- '80s, debate over licensing issues came to a head. In the U.S., Amateur Radio classifications run from Novice and Technician, the basic licenses, to the more advanced General and Extra tickets. In this country, Novices and Techs are only allowed to talk on very narrow bands. With a Mexican provisional license, however, you can talk anywhere on the band.

To make a long story short, some U.S. Hams felt that this was unfair, the end result being they wouldn't 'recognize' people like Bogdanski, who at the time had just a Novice American license.

The cruisers sided with Brent and together, they came up with a Ham net dedicated to the cruising community. Brent was unanimously elected its leader.

"When they asked me to name the net, I chose 'Chubasco" because it's a swift, fierce storm that comes up suddenly and no one can do anything about it. Just like what happened to us!"

Although the net ran for a few weeks prior, Bogdanski considers 01 September 1986 as Chubasco's official birthday.

Located at 7.294 MHz on the 40-meter band, Chubasco has been going steadily seven days a week, ever since. Bogdanski eventually obtained his General license and has since moved back stateside to Arizona, but he still helms the net personally nearly every day.

Aside from AA6TP's unique weather feature, the Chubasco Net, like the Baja Net, is primarily a vehicle to transfer personal 'traffic.' Brent has primary net control stations in Mexico and he shepherds the net almost daily. After the weather, the net calls for stateside traffic. That is, messages going from the U.S. to Mexico, or to somewhere else in the U.S. (Though designed for them, the Chubasco Net is not restricted only to cruisers.) After that, it's stations in Mexico with northbound traffic, utilizing stateside stations with phone patch capabilities. Finally, there is general traffic, which accommodates everybody else from latecomers to boats trying to contact other boats in different Mexican anchorages.

The Chubasco Net is 'on the air' an average of one hour a day. On a slow summer day — Mondays are slowest — they might pass 15 to 20 bits of traffic. On a busy 'in-season' day, such as when the Baja Ha-Ha Rally rolls through town, they might be on the air for nearly two hours and deal with 50-60 check-ins.

Interestingly, the health of the Chubasco Net has shown many cruisers the real value of Amateur Radio — a value they might never realize back home in the States. "A lot of these guys will take a $100 course to get their Novice license and then realize it's really no good to them in the States because they can't talk to anybody," says Bogdanski.

But then they get their Mexican provisional license and they can talk to everybody — as long as they remain in Mexican waters. As soon as they get more than 12 miles from land, such as crossing from Cabo to the mainland, they're 'bootlegging' again and even Chubasco can't legally recognize them except in emergencies.

(As a matter of policy, Chubasco encourages all Amateur Radio operators to obtain Mexican licenses as soon as possible after entering the country. Licenses can also be otained in Tijuana before the boat leaves San Diego. Check with Downwind Marine 619/224-2733 for details on how to do this.)

The result is the formation of an active VE (Volunteer Examiners) corps that helps Novice Hams up the ladder to higher U.S. classifications. Largely through the influence of the Chubasco Net, Bogdanski is aware of 100 cruisers a year who take American advancement exams while in Mexico. In fact, it's become such a cottage industry that VEs often fly down from the States to help.

As mentioned, there are many other radio nets out on the airwaves besides Chubasco. As far as Ham-only options, on the 40-meter band for 'long distance' communication, the concurrent Baja Net is still alive and well. Down on the 80-meter band, which is for more short-distance communications, the Sonrisa Net (3.968 MHz, beginning at 1430Z) is popular with cruisers, as are the Manana Net (1900Z), Women's Net (2330Z) and Happy Hour Net (0000Z).

Obviously, if you plan on 'hamming it up' during a cruise south, there are plenty of options available. Just make sure you invest the few pesos for a provisional license from the SCT (the Mexican FCC) before you start talking.

POW families aided by Short Wave Listeners in WWII

RICK McCUSKER, KO6DJ

Leroy Shrum fell into the category of many, many men at the outbreak of World War II. He had been too young for service in the "Great War," and was beyond the age of enlistment for this one. But Leroy and many others did an outstanding and little-known service for our troops in Europe.

At the outbreak of WWII, amateur frequencies became silent at the order of the government. Most of the amateur operators who were of age enlisted in military services and served the country by utilizing their skills as communicators for the various services and the government.

During the war the German government devised a way to shatter the morale of the troops fighting against them. "Axis Sally" was a propaganda broadcaster being used by the Germans to broadcast false and misleading information and other information designed to lower the morale of the enemy soldiers and make them want to go home.

One of the ways the broadcasts were supposed to demoralize our troops was by announcing the names, ranks, serial numbers and hometowns of prisoners-of-war. But it didn't quite work out that way!

Leroy would sit by his shortwave radio and listen to "Axis Sally's" broadcast and wonder what he could do. One night, he grabbed a pencil and started to write down the prisoner information as it was read by "Axis Sally." The next day, he spent many hours looking up the families of these servicemen, and he sent each of them a post card, saying he had monitored the broadcast and their family member had been announced as a prisoner-of-war who had been captured by the Germans.

Some of the time, he would have to send a postcard with an incomplete address. But unlike the automated systems of today at the Post Office, most of the partially addressed cards actually made it to the destination. The letter carriers would make the extra effort to make sure the card arrived. They knew how important the news was.

Our government usually notified the families of servicemen that these men had become "missing in action," and further information would be sent to them as soon as possible. Quite often the information arrived as a postcard from Leroy, or other Short Wave Listeners, who had also started to do the same thing.

Frank L. Davis, of Stanton, Delaware, was serving as a paratrooper with the 506th Regiment of the 101st Airborne Division and had parachuted into France on D-Day, 06 June 1944. He was badly injured during the Battle of the Bulge, and was taken prisoner when the German Army captured the field hospital in Bastogne, Belgium, where he was being treated for his wounds. He spent three months in captivity, and during his involuntary stay with the German Army, was not allowed to send any kind of word to his family that he had been captured and was still alive.

That is when the Short Wave Listeners saved the Davis family a lot of grief and anxious moments. Franks' parents received 38 postcards from different listeners of "Axis Sally" informing them he was a prisoner-of-war. The penny postcards were received from all over the country. Almost all of the cards had personal messages for the family and offered prayers and encouragement.

Mr. Sanford Lowe of New York City was one of the listeners sending out cards. In fact, Mr. Lowe sent out over 16,600 post cards to families of POWs stating he had heard broadcasts by "Axis Sally" and "Tokyo Rose" announcing the names of captured servicemen. According to the card he sent to the Davis family, postage for his efforts was donated by Mrs. H.W. Poe of Martinsville, Texas. She donated the postage because her husband, Harvey W. Poe, was being held as a POW in Germany.

Another group of individuals sending out the notifications was the American Women's Voluntary Services, War Prisoners Listening Post, Radio Department of New York City. A card was also received by the Davis family from Mrs. R.H. Brewer of Warren, Ohio. Mrs. Sadie Acklan of Middletown, New York, not only sent a card, she asked for a photograph of Sergeant Davis for her scrapbook. She was keeping an album of "her boys" who were being held captive.

In 1995, Frank sent letters to all 38 Short Wave Listeners expressing his thanks for letting the family know he was relatively safe as a prisoner-of-war. He received a reply from one of the SWLs and two other replies from the families of other SWLs that had sent postcards to the family.

An effort is underway to recognize the Short Wave Listeners who helped the war effort by sending these notices to the families of POWs. Frank is spearheading the effort, and would like to hear from as many of the SWLs or their families as possible. He can be reached at: P.O. Box 6207, Stanton, DE 19804 or by calling: 302/994-0109.

*(Ed: This information reached **Worldradio** from Senator Joseph R. Biden, Jr. and Senator William V. Roth, Jr. of the United States Senate. Additional information was confirmed in telephone conversations with Frank L. Davis!)*

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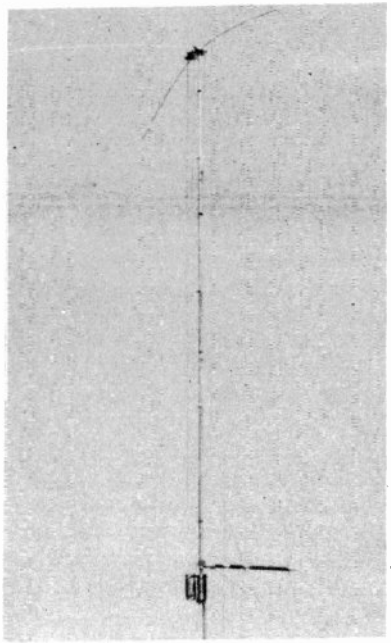

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Fast/slow tune push buttons and built-in two range *Cross-Needle* SWR/Wattmeter lets you quickly tune to your exact frequency.

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NEW!* MFJ-1788**, $359.95. Same as MFJ-1786 but covers ***40 Meter through 15 Meter continuous. Includes super remote control.

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No, it's not a fan -- it's a high efficiency portable loop antenna that's about the same size and shape as a 2x2 foot box fan, complete with carrying handle.

Carry it like a suitcase, tuck it in a corner of your car or check it as baggage on a plane.

When you get there, set it on a table or desk and enjoy ragchewing or DXing.

All welded construction, covers 14-30 MHz *continuously* including WARC bands, handles 150 watts. Remote control has fast/slow tune buttons. Separate control cable not needed.

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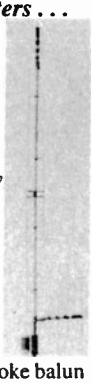

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MFJ . . . the world leader in ham radio accessories

The man who taught us all
— an interview with Bill Orr, W6SAI

BILL PASTERNAK, WA6ITF

Prologue

Some Hams work DX. Others build and install repeaters. Still others like to listen for the echo of their own signal bouncing off the moon. For me, there is nothing more enjoyable than sitting down with the movers and shakers in our hobby — service, turning on my tape recorder, learning who they are and what motivates them and then sharing their humanity with the rest of hamdom. That's what being a people watcher, society watcher and writer is all about.

Over the years, I've had the opportunity to meet and interview many of the nation's — and the world's — best-known Ham Radio personalities, who have permitted me to share their stories with my readership. Sometimes the interview sessions were methodically planned. At other times it was by chance and I was lucky to have a portable cassette recorder with me.

Then there are those interviews that fall in-between. Yes, they are planned, but only as far as setting the time and place. And it was a situation like this that had me seated on one of United Airlines' jetliners headed from Burbank California northward to "The City by the Bay."

How it came to pass

I was going north to meet with Bill Orr, W6SAI, primarily at the request of Ken Allen, KB8KE, the Chairman of the 1996 Dayton Hamvention. A few months earlier the Hamvention Awards Committee had named legendary Amateur Radio author William I. Orr, W6SAI, to be the recipient of its "Technical Achievement Award." Due to circumstances beyond his control, Bill was unable to attend the Hamvention Banquet and requested that his close friend Joseph Schroeder, W9JUV, accept it on his behalf.

As Hamvention '96 was drawing to a close, I was approached by Ken and asked if I would be willing to hand-deliver the award to Bill. To be candid, I'd been looking forward to an eyeball with W6SAI ever since I was first licensed back in 1959. You see, I was a "kid Ham" without much money to get on the air. It was Bill Orr's *Novice and Technician Handbook* that gave me a low-cost solution and made possible my first QSO and many subsequent hours of pleasure operating on the 6-Meter band.

All my life I had wanted to say "thank you" to the man whose words between those blue covers had made my on-air Amateur Radio dream possible. With DARA offering to offset any expenses I might incur in delivering the award to Bill, I was not going to say "no." This might be the one chance in my lifetime to meet a Ham and author whom I truly admire.

It took a bit over two months and a half-dozen phone calls for us to find a common weekend when we both would be free. It also had to be a day when my friend Pat Ford was available to be the photographer. That date finally arrived and less than an hour after takeoff the 737 glided to a landing at San Francisco International Airport. Pat was there to act as chauffeur and soon we were in Menlo Park at the home of Bill Orr, W6SAI.

After making the formal presentation on behalf of the Dayton Amateur Radio Association and its Hamvention Committee, the three of us adjourned to Bill's rose garden where I spent about an hour posing questions to him.

What follows are some of the highlights of that interview. It's not a chronology of Bill's lifelong achievements. Rather it is — I hope — a story of the man himself.

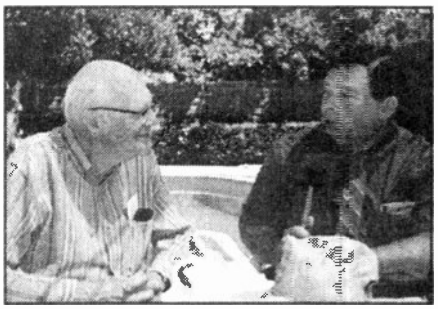
Meet W6SAI

Worldradio: *You are well-known for your helping to develop technology and your fine writing. How did it all come about?*

Orr: I started in 1934. I became interested in electricity when I was in high school when one of the teachers brought in a buzzer, battery and a long coil of wire that allowed us to talk from one end of the room to the other. I thought that was pretty neat!

Worldradio: *You say talk. Was that in Morse code?*

Orr: Yes. It was a sounder at that time. It was the click-click-click kind of code. The old Continental code.



Bill Orr, W6SAI, and Bill Pasternak, WA6ITF

That's what I learned first.

Worldradio: *OK. You are in high school and your interest in electricity is growing. What next?*

Orr: I went to high school in Bronxville, New York. I also found that if I turned all the tuning dials on my dad's radio to "0" I could hear people talking to each other. I finally figured out that they were radio Hams. So I went around town trying to find them but I never found anyone. Finally, I met a young college freshman in town who was an amateur. He showed me his station and I was completely overwhelmed.

Worldradio: *When did you get your Amateur license?*

Orr: I got it while I was still in Bronxville High School.

Worldradio: *Where did you continue your education?*

Orr: I attended Columbia University, where I met a whole flock of Hams at the radio club. And it was then I decided I would go on 20 Meters, become a big DXer and knock them all dead. Unfortunately, that was the same time that World War II came along and put the kibosh on my super station.

Worldradio: *At that point did you get involved in the war effort?*

Orr: The family had moved out to Los Angeles in early 1940. In the summer of 1940 I went to work in the Electrical Department of Douglas Aircraft in Santa Monica working on the old B-19 bomber. I also worked on the first C-54, A-20 and the C-47.

I eventually became the head of

the Electrical Test Department checking out all the radios and the wiring in the electrical assembly of the airplanes. It was a rather large department that tested all of the instruments.

Worldradio: *I heard that a lot of companies like Douglas Aircraft and McDonnell actually recruited Hams for employment in these critical jobs.*

Orr: That is correct. They were looking for radio amateurs. If you were alive and had a Ham license you had a job.

Worldradio: *How long did you stay with Douglas?*

Orr: I was there until three months after the war ended. At that point the contracts were canceled, people were being laid off and I got out one jump ahead of the personnel department.

Worldradio: *Now I've heard another interesting story that at the conclusion of World War II you were one of the first Hams unofficially back on the air?*

Orr: Oh dear. What they called the Army Representative was a friend of mine. His name was Howard — I do not remember his call — but he was itching to get on the air. He assigned everyone in his group an Army call. So, we got on the air on 40-Meter phone, which was prohibited in two ways. At the time there was no 40-Meter phone and second there was no Amateur Radio. That is, except for about twenty fellows employed at the various Douglas plants.They were on the air and that really upset the FCC. They did not like that at all, but the war soon came to an end and they were then all legitimate.

Worldradio: *What was Bill Orr known as?*

Orr: My call was 22x2 and I have not used it since.

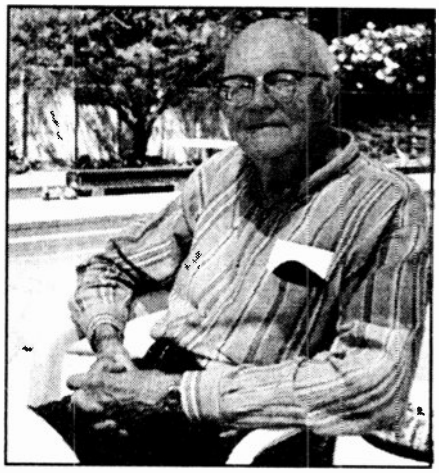
Worldradio: *What was the next major undertaking?*

Orr: During the Korean War I was at Hughes Aircraft for about a year on the Falcon missile program. Then I moved up here to Northern California and went to work for Eitel-McCollough as it was known back then. (*ed; Eimac today*) I stayed with them until about six years ago when I retired. So, I ended up with a pretty good knowledge of vacuum tubes along the way.

Worldradio: *Were you responsible for any of their designs?*

Orr: No, I was a bystander in the area of designing but I could critique them pretty well. Actually, I was in the marketing department and also did some of the engineering work, data sheets and other publications. That gave me a good foundation in the publishing business.

Worldradio: *I remember back when I got my first license in 1959. The first book I bought was the* Novice and Technician Handbook *by Bill Orr. I built my very first station from it. Was it your experience at Eimac that inspired you to write for Amateur Radio?*



The man who taught us all: Bill Orr, W6SAI

Orr: Actually, my neighbor across the street was the West Coast manager for Time-Life and moonlighted on publications that he printed on his own. One day he asked if I would like to do a book on Amateur Radio. The first one I did, called *The Beam Antenna Handbook,* which, after many editions, is still in print. I gradually added more to the line and suddenly found myself in the publishing business. I don't recommend it to anybody.

Worldradio: *Aside from the* Beam Antenna Handbook, *of all the books you have written or edited, which are you the most proud of?*

Orr: I think it's the big *Radio Handbook.* It represents an effort right across the whole spectrum. I enjoyed doing that one the most, and the *Beam Antenna Handbook* is an equal because it was my first one — it was my baby.

Worldradio: *The* Radio Handbook *— how long did it take to complete a work that big?*

Orr: That book was originally brought out by a company called Radio that published *Radio Magazine.* Frank Jones was the editor, and when I got involved it was already the eleventh or twelfth edition. As such, many of the basic building blocks were there.

It was then a matter of updating it each year, inserting the latest equipment and correcting all the goofs that slipped into the previous edition.

Worldradio: *It sounds if you enjoy writing.*

Orr: I do, It's a lot of fun.

Worldradio: *Any ideas for new books on the horizon?*

Orr: No, I haven't thought that far ahead. One of these days I am certain I'll come up with something.

Worldradio: *What else are you involved in these days?*

Orr: Mainly my family and friends. I'm not on the air very much because band conditions are so deplorable, but my spirits in Ham Radio will rise as the sunspot cycle rises.

Worldradio: *Which reminds me — when we were on the phone making arrangements to get together and I asked you what frequency I should look for you on 2 Meters, you responded that you did not have a 2-meter radio. May I ask why?*

Orr: Right now I'm interested in 1296 MHz. I have a 1296 FM transceiver and we have probably 10 or so 1296 repeaters in this area. There are very few such systems in the country and the most congested area on 1296 is right around the San Francisco area.

By the way, there is my antenna up there on that pole (pointing). You can see that it's only a coffee can with a 1/4-wave whip inside of it. It gives a gain of 3 dB.

Worldradio: *In reading what you have written, you have always urged Hams to go higher in frequency and*

do more. What words would you have for today's new "No-code" Hams?

Orr: I would say not to get locked in on any one band or any one repeater. There is a lot more to Amateur Radio than just your favorite repeater. Since most beginners start out on 2 Meters, I suggest that beginners move up to 432 and 1296.

Worldradio: *You were also a pioneer of 6 Meters. Suddenly, six is making a major comeback. Any thoughts?*

Orr: I have no 6M gear at the present time, but I do have the itch to get on six, especially if the MUF goes high enough. When that happens you get interesting 6M openings. That will be a thrilling band in the next three to four years and I'm looking forward to it.

Worldradio: *I could loan you my copy of the* Novice and Technician Handbook. *There are some time proven designs in it.*

Orr: I'm afraid that they're a little obsolete by now. They used tubes! That was written in 1956 or 1957 or sometime around there.

Worldradio: *Well it may be obsolete but the basic designs are still sound. I recently helped a friend get on 6 Meters by building him that two-tube converter with the 6BH6 and 6J6. He's running SSB on 6 meters with an old transmitter, an NC-303 receiver and that converter. He hears stuff on 6 Meters that people with newer gear can't. Good stuff does live on.*

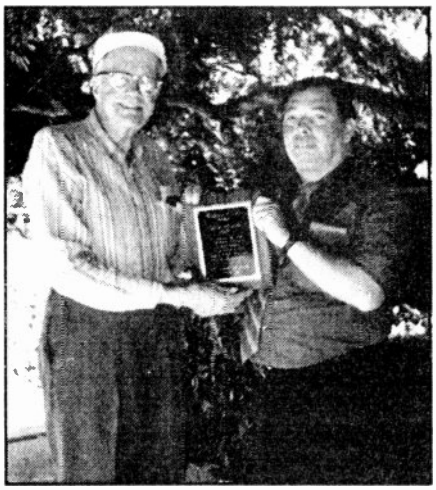
Orr: That's correct. In fact there is another branch of the hobby that is devoted to older equipment. I have collected an HRO, an RME-6900, and a couple of other old receivers. They are fun to play with and you will be amazed at how well they work. The stability isn't there and they do drift, but they sound great! Also, there is still AM on the air. There is a society for it and if you tune around the bands you will hear AM groups that are on — most enjoyable. It's just another branch of Amateur Radio. As you know, Amateur Radio encompasses literally hundreds of different hobbies.

Worldradio: *And what's your favorite branch?*

Orr: My favorite is still working DX. After all these years, I am still hooked. It's talking with my many friends all over the world, and once in a while we actually get to visit with one another.

Worldradio: *Speaking about DX, when he accepted the Dayton award in your name, your friend Joe Schroeder, W9JUV, told a rather interesting story about how you and he managed to open up a brand new band.*

Orr: You are talking about the 10, 18 and 24 MHz WARC bands. We had both listened there and found very little commercial activity and lots of empty holes. Joe and I decided



Bill Orr, W6SAI, receives 1996 Dayton Hamvention Technical Achievement award, delivered by Bill Pasternak, WA6ITF.

we would get on the air and talk to one another. So, we assigned ourselves call letters. I used MSU, which were the call letters of the Titanic, and he used ORD for Ordway. We finally ended up with five or six people talking back and forth on 10.1 MHz and 18.1 MHz.

At this point Joe suggested it might be wise if we were licensed, so we called on some friends in the FCC and sort of alluded to the fact that it would be nice if Hams could determine how the bands were as a propagation study. We applied for experimental licenses which, after a lot of explaining, were granted to us. So, ORD and MSU bit the dust and I became KM2XDW with an honest-to-gosh legitimate license.

There were about ten stations with experimental licenses keeping track of propagation. One of them who had an experimental license was an FCC official who will remain nameless.

The FCC is like many government bodies where the left hand does not know what the right hand is doing. One of the FCC's monitoring stations tuned across our frequency, and here are these guys talking Amateur Radio with these oddball calls. So they issued us all pink tickets. And of course the Ham in the FCC who got a pink ticket about blew through the ceiling when it was dropped in his mailbox!

Worldradio: *I assume that those citations were never followed up?*

Orr: No. He wrote an explanatory letter and included a photocopy of the license and that was the end of it. Shortly after, those bands were opened up.

Worldradio: *I understand you people closed the experimental operation and became the first Amateur Radio signals on them.*

Orr: That's correct. We got on about five minutes before the band was opened to amateurs. We used our experimental calls and on the hour I said: "...This is W6SAI standing by" and there were plenty of stations ready and waiting to respond.

Worldradio: *Any closing thoughts for the Amateur Radio community?*

Orr: I am grateful to Amateur Radio for giving me my career and a wonderful life. I've met a lot of wonderful people and have had an enjoyable time. And to any youngsters who may be interested in becoming radio amateurs, let me say — please do so. It will open up a whole world to you socially, educationally and career-wise.

Worldradio: *Thank you for this interview. It was a pleasure to meet you.*

Epilogue

Yes, I did say thanks to Bill for his book that helped me to get on the air. I also learned that Bill and I agree is the need for more young people to enter Amateur Radio, learn its traditions and take on positions of leadership in the Amateur Radio community. Through his easy-to-understand books and magazine articles, Bill has done more than his share to make this happen.

We are very lucky that Bill Orr, W6SAI, decided to devote much of his life in the ongoing education of his fellow Hams. The hobby and the wide world of Amateur Radio are all the better for it.

Station Appearance

Jim Condie KN6NL

*Send **Worldradio** a picture of your shack and the staff will choose a winner to receive a free one-year subscription to **Worldradio**!*

Stations will be judged by neatness (wires tucked away, etc.) and accessibility of equipment. Monetary value of equipment is not a consideration.

I have always been interested in Amateur Radio, but it was not until 1991 that I finally took it upon myself to get a license. That year I earned my Novice license, and upgraded to Advanced in 1993.

I decided that I wanted my station to look as neat as possible, so I built a console for my equipment. The console slides forward on the desk, making it easy to reach over the top and take out any unit that needs to be removed. There is no back to the console, and that gives plenty of ventilation for the units. There is a grounding strip attached to the console where all units can be grounded, with a cable going to an 8-foot ground rod.

All the radios except the Yaesu FT-1000 are used for both base and mobile operations. They all use special mounts, allowing me to use them in my truck, and quickly place them back in the console, or use them as a base unit at my destination.

The equipment, left to right, top shelf is: a Yaesu 1000 external speaker, Realistic speaker, Palomar antenna tuner sitting on top of a Palomar T-3000 antenna tuner, another Realistic speaker, and an Astron power supply. On the middle shelf left to right is: Monitor for packet computer, packet controller, Realistic scanner, desk lamp, Realistic speaker with an antenna switch behind the speaker, another speaker, and a Monitor for my main (business) computer. The console has, left to right: an antenna switch, antenna rotator control, Yaesu FT-1000, 2 stacked speakers, a clock atop a Kenwood 742 tri-bander, an AEA PK-88 multimode controller with a Kenwood 231 below it, and an Icom IC-736 6 Meter below them. Another rotator controller is to the right of these.

The console is in a small bedroom that was converted from a carport several years ago for the kids. The kids have since grown up and have left home.

I have antennas mounted on pipe and fabricated towers with rotators, but the main HF antenna is a "Carolina Windom" that is attached to the neighbor's house. (Why can't we ALL have neighbors like this?).

Amateur "Hi"

*Ever had a funny or strange experience with Amateur Radio, either on or off the air? If so, type it up (or print neatly) and send it to us for consideration in our monthly AMATEUR "HI" contest. You could win a free year's subscription to **Worldradio**!*

JACOB BRODSKY, AB3A

I was first licensed as WN3ZOQ in 1975. I later became WA3ZOQ when the licensing rules changed. Mine is a story about upgrading to General.

In those days, you went to take the code and theory tests at the FCC office near you. Because I lived in Washington, DC, I took a bus downtown to the main office of the FCC at 1919 M Street. It looked pretty imposing and scary to a 13-year-old, but I was prepared. I even had a fresh nine-volt alkaline battery for my scientific calculator in my pocket.

I took a seat in a room full of strangers and got ready to copy code at 13 words per minute for 5 minutes. I had this one chance to get it right or I'd have to wait another month.

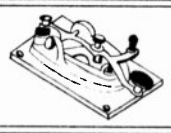
"Get ready — Begin!" "dah dit dit dah....dit dah dit..." Scribble, scribble, whoops missed a character! It was intense.

A minute or two went by and I began to notice a burning sensation in my leg. I kept going; no second chances here, I thought. By the fourth minute, my leg was really in pain. Scribble, scribble, scribble, "OK, folks, put your pencils down."

I jumped out of my seat. My leg felt like it was on fire! It almost was. That nine-volt battery I was so careful to take along had shorted out against my keys. It was so hot that I almost couldn't pull it out of my pants pocket. YEEEOOOOWWW!

I sat in relief for a minute. Then I looked at what I had written. It was nearly perfect copy. Then I took the comprehension test, and whaddaya know? I passed.

Silent Keys



PHILLIP CATONA, W2JAV

RTTY pioneer Phil Catona, W2JAV, of Pitman, New Jersey, died suddenly 27 January after a period of ill health. He was 79. Catona held RTTY WAS #2, for which he qualified in 1961. Based on a design by W2PAT, he also developed the W2JAV RTTY demodulator, which remained a standard for a decade or more in the 1950s and 1960s and was included by Byron Kretzman, W2JTP, in *The New RTTY Handbook*.

Catona also built equipment for and operated on the UHF and microwave bands in the days when they were largely uncharted territory for Hams. His close friend, E. M. "Brownie" Brown, W2PAU, recalled how Catona "gave freely of his expertise" to help others with Ham Radio projects and solve their problems.

Catona also belonged to the Antique Wireless Association and collected and meticulously restored vintage radios and radio paraphernalia. He also was an amateur aviator.

A World War II veteran, Catona was retired from RCA. He was a member of the ARRL and a member and past president the South Jersey Radio Association; in 1952, he was SJRA's Amateur of the Year. He also was a member of the Cumberland Radio Club and trustee of the CRC club station, W2BX. His wife, Pearl, WA2AVA, is among his survivors. — *ARRL Letter*

JEAN PEACOR, K1IJV

Former *QST* "YL News and Views" editor Jean Peacor, K1IJV, of Orleans, MA, died 10 January at the age of 70. Peacor twice served as editor of the *QST* YL column, from July 1963-October 1966 and again from July 1979-August 1985.

She also was active in the West Mass Net for many years and, until her death, had served as a sorter for the W1 QSL Bureau. Peacor also was an avid bridge player and held the rank of life master. She frequently traveled around the country for bridge tournaments.

Survivors include her husband, Norman, K1IJU, their two sons, Mark and Grant, and six grandchildren. Memorial donations may be made to the Orleans Council on Aging Building Fund, 150 Rock Harbor Rd, Orleans, MA 02653. — *ARRL Letter*

ALEXANDER McKENZIE, W1BPI

Alexander McKenzie, W1BPI, of Rosemont, Pennsylvania and formerly of Eaton, NH, died 13 December 1997. He was 89. McKenzie was the last surviving member of the team that logged the record wind speed on New Hampshire's Mount Washington 12 April 1934. McKenzie, the expedition's radio operator, transmitted the wind data by radio from the mountain to scientists at the Blue Hill Observatory in Milton, MA. The record, a wind gust of 231 mph, stood until three days after McKenzie's death when a gust of 236 mph was recorded in Guam during Typhoon Paka. A Dartmouth College graduate, McKenzie also worked on the development of the LORAN navigation system at MIT's radiation laboratory and later was an editor and author of technical publications.

McKenzie often returned to the Mount Washington observatory in April (including last April) to recount the story surrounding the record wind gust. McKenzie and four companions were in the shack at the mountain's peak when the weather turned and winds began building. *The Boston Globe* reports the three crew members and two guests became instant New England celebrities. Survivors include his wife Hilda, three sons, and seven grandchildren. — *Joe Reisert, W1JR, ARRL Letter*

ERIC EDBERG, W6DU

Noted DXer and contester Eric B. Edberg, W6DU, of Los Altos, California, died 19 January 1997. He was 79. Edberg was a long-time ARRL member and DXCC Honor Roll member. He was a past president and secretary of the Northern California DX Foundation, past president and secretary of the Northern California DX Club, a member of the Northern California Contest Club and a member of the First Class CW Operators Club (FOC). In posting word of Edberg's passing on the Internet, Rusty Epps, W6OAT, called Edberg "a wonderful friend whom I and many others will miss greatly." A DXpedition to Palmyra, Kingman and Howland is to be dedicated to the memory of W6DU. — *Rusty Epps, W6OAT; Brad Wyatt, K6WR; ARRL Letter*

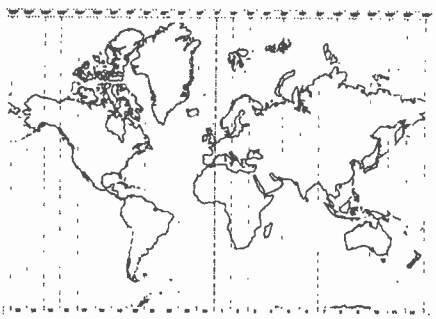
HENRY RUGG, VA3HN

Veteran Canadian Amateur and ARRL member Henry "Hank" Rugg, VA3HN (ex-VE2HN, VE3JX and VE2JZ), of St Catharines, Ontario, died 29 October 1997. He was 80. Rugg had been a member of the ARRL for 60 years. During World War II, Rugg was among the group of scientists and engineers who worked on a top-secret project to build Canada's radar defenses. He later recalled his wartime experiences in a book, *No Day Long Enough — Canadian Science in World War Two*. In 1992, when he was in his mid-70s, Rugg was part of an expedition to a remote island in the Canadian Arctic. His wife and two sons are among his survivors. — *Andrew Rugg, VE2EM / VA3TEE; ARRL Letter*

E-mail your story

Please send your contributions to:
n6wr@ns.net

Awards



Contact All Time Zones

To help commemorate 25 years of ***Worldradio,*** we announced an award known as "Contact All Time Zones" (CATZ).

• Rules

The start date for valid contacts is 01 July 1996 at 0000Z.

The world is divided into 24 time zones. Each time zone is 15 degrees wide. For the sake of this award, half-hourly zones and out-of-zone artificial time changes will be ignored.

This award is based on the true 15 degrees each, world map 24 time zones.

The applying station must have one (two-way) contact on Amateur Radio allocated frequencies with a station in each of the world's 24 time zones. Contact with one's own nation does not count.

The operator applying for the award must have made all 24 contacts from a location within the same country.

The award may be endorsed as the applicant wishes in regard to band and/or modes.

• Application

The applying radio operator must be in possession of 24 QSL cards, one from each of the time zones.

A list shall be made showing each contact's call sign, date, band, mode and the time zone starting with the prime meridian (0°) and moving eastward.

There is a fee of $5 to cover the cost and mailing of the 8 x 10 certificate (mailed unfolded).

It is not necessary to mail your QSL cards to ***Worldradio.*** Send a statement signed by two other licensed radio amateurs (General Class or above) that they have inspected and verified the required QSL cards.

Address applications to CATZ Award, ***Worldradio,*** 2120 28th St., Sacramento, CA 95818.

Recipients of the CATZ award will be announced in the ***Worldradio*** DX column.

— SPECIAL EVENTS —

CHISHOLM TRAIL

The Chisholm Trail ARC will operate WD5IYF 25 April, 1500-2200 UTC, during the dedication of a 32-foot long bronze monument to commemorate the significance of the Chisholm Trail to Southwestern Oklahoma.

The famous trail began in the late 19th century when Indian scout Jesse Chisholm laid out a cattle route between Ft. Worth, TX, and the railheads at Abilene, KS. The city of Duncan, OK, will host the commemoration ceremonies and the dedication of a new visitor's center during the event.

WD5IYF will operate on 7.070 QRP, 3.875, 7.245 and 28.355 MHz during the event. For a color QSL card of the monument send an SASE to CTARC, 3120 Whippoorwill Ln., Duncan, OK 73533. — *KD5DL*

FOUR CORNERS STATE BOUNDARY

Operation of a Special Event Station, N4C, to commemorate the Four Corners State Boundary that is shared by the States of Arizona, Colorado, New Mexico & Utah (USA). The only boundary, within the United States, four States share a common point. This event will coincide with the NorCal QRP Club's "QRP To The Field" '98, where the theme is "Boundaries."

Operational Times: 24 April, 2200 UTC-26 April, 1700 UTC. Updated information will be posted at http://www.swcp.com/~n5zgt/

Please check it periodically, or email wa5whn@rt66.com for further information about the N4C operation. SASE (#10 envelope) & QSL are requested. QSL address for N4C: c/o WA5WHN, Jay Miller, P.O. Box 6552,Albuquerque, NM 87197-6552 — *WA5WHN*

MARCH OF DIMES

The Clark County ARC will operate a special event station, W7AIA, to celebrate the March of Dimes, 60 years of Success & the 2nd annual Vancouver, USA Volksport Discovery Walks, 25 April, 1500-2300 UTC and 26 April 1998, 1500-2200 UTC on or near 28.320, 21320, 14245, and 7.245. QSL SASE for certificate to Mark Gaunt, 4211 NE 140TH Ave., Vancouver, WA 98682-6948.

50TH ANNIVERSARY

Wheaton Community Radio Amateurs, W9CCU, will be operating a Special Event station to commemorate the 50th Anniversary of the club, 0200Z-2000Z, 18 April, on or near 3.880, 7.280, 14.280, 21.380. QSL with 9x12 SASE to: Ron Hensel, K9ZZE, 43W275 Hawkeye Drive, Elburn, IL 60119.

Off the air

Wants Sunspot Numbers

Many thanks for the free copy.

It was disappointing inasmuch as I had hoped to find mention of the sunspot number #24 or 25. But no, instead you printed a full page of Web sites on which to find propagation information.

Not being a spider, the web hasn't the least fascination for me.

Charles P. Krause, N7ESJ
Sea Level, NC

Try listening to WWV or WWVH at 18 minutes past the hour. They broadcast indices on propagation and the ARRL Handbook *and* ARRL Antenna Book *can show you how to use the indices to guide you to good conditions.*

Morse code "crutches"

It is very hard for me to believe that W6TJP can really be serious about his suggestions on learning Morse code using "crutches" (Feb. 98 ***Worldradio***, p. 20) The outstanding article by Dave Kelley, AI7R, in the August 1997 issue of ***Worldradio*** was right on target when it comes to the correct suggestions for learning code.

Wheeler asks for scientific research to provide justification, and I submit that it has already been taken care of if you refer to the thousands of military personnel, coast guard, and ship radio operators who have been taught code using the Farnsworth method and listening to the SOUNDS of the elements.

He is correct about learning at element speeds of 18 to 20 words per minute. But most of us do not need cute words to complicate this new language that is being learned. If we think about learning a new language such as Spanish or French, the same principles are applied. Our brains require time to store the code "sounds" as I documented in my 11/97 "Off The Air" item which referred to Dr. Holcomb's research on this subject.

Could Wheeler's suggestions be one of the reasons we are hearing from some that the code is difficult to learn? The fact is that it is easy to learn for most if they are willing to be patient and use good learning techniques.

Dave Van Der Weele, WA3L
Trafford, PA

RF gain control revisited

There are some historical and technical liberties taken in the Feb. 98 article by Bob Eldridge, VE7BS, on setting receiver RF gain controls to obtain the best audio.

In the 1950s, Art Collins had to convince a reluctant Ham community they should adopt the limited bandwidth, pinched sounding communications mode of single sideband. Great fidelity was available from good old AM, and receivers of the day were commonly set up to take advantage of the frequency quieting carrier and human sounding audio.

Collins was on the right track if he advocated minimal RF gain to capture and decode the audio on incoming phone signals. The advice is good for AM and on SSB for most postwar receivers. But Eldridge seems to suggest that "fast" Automatic Gain Control yields the best fidelity. This is not true under good conditions.

Limiting the dynamic range on audio can lead to listener fatigue. Just check out any FM pop station and you'll hear that everything is LOUD. Such limits can help in noisy envionments or weak-signal work. But even the restricted qualities of sideband phone can be less irritating when the ear is allowed to hear the differences between loud and soft.

This issue is discussed in detail on an Internet page dedicated to the nostalgic specialty of using AM on the shortwave Ham bands, sponsored by WB3HUZ at www.thebizlink.com/am/ and add to that address this suffix for the AGC topic www.board/messages/78.html

Paul Courson, WA3VJB
Annapolis, MD

(More Off the air on page 69)

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May 15, 16, 17, 1998 ■ Hara Arena, Dayton Ohio

SPONSORED BY THE DAYTON AMATEUR RADIO ASSOCIATION, INC.

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- Ticket requests that are received **AFTER** the deadline will be processed and **HELD** for pick-up at the Hara Arena box office beginning Wednesday, May 13 at 9:00 a.m.

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  For an application, please Fax (937) 376-4648 or E-mail to exhibits@hamvention.org
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  For an application, please Fax (937) 276-8902 or E-mail to fleamkt@hamvention.org
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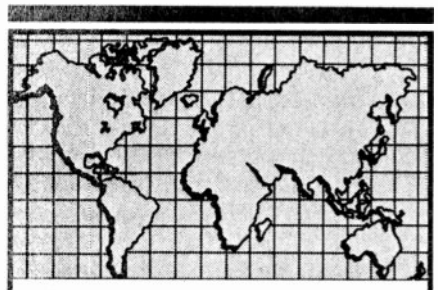


DX WORLD

John F.W. Minke III, N6JM
P.O. Box 310 Carmichael, CA 95609-0310
• E-mail: n6jm@pacbell.net•

W-100-N

There were no applications processed for W-100-N during the month of January nor that of the new CATZ award.

Annobon (3CØ)

The *Ohio/Penn DX Bulletin* says there is a rumor of a DXpedition to Pagalu Island (AF-039), a.k.a Annobon, scheduled to begin sometime in March. Four to six operators are expected to make up the team with operation to include CW, SSB and RTTY, all bands, particularly 40, 80 and 160 Meters.

Bouvet Island (3Y)

Tom Anderson, WW5L, a member of the SSIDXG DXpedition to Bouvet Island (AN-002), tells me they still have not received landing permission. The DXpedition had been rescheduled to December '98.

Chechnya Republic (1X5)

The *Daily DX* reports activity from Chechnya Republic where operator Hamza signs with 1X5AA. He is located in the city of Grozny, part of Russia. This new country has not been recognized. Therefore, it is not a separate DXCC country, nor does it qualify as a nation for W-100-N.

Crozet Island (FT5W)

Jean-Paul, F5BU, is reported to be active from Crozet Island (AF- 006) through 18 March, signing with FT5WG, mostly on SSB.

Guernsey (GU)

According to the *Ohio/Penn DX Bulletin,* Jean Marc, F5SGI, will be active from Guernsey (EU-114) signing with GU/F5SGI, 10 through 40 Meters. Although his operation will be mostly CW, you may catch him on SSB near the IOTA frequency of 14.260 MHz. Look for him 11-17 April.

Israel (4X)

425 DX News notes that Amateur stations from Israel are permitted to use the special prefix of 4X50 to commemorate the 50th anniversary of the founding of Israel until 1 May. The stations will also append their calls with SK.

Jan Mayen (JX)

The *Daily DX* says Per Dahlen, LA7DFA, should be active from Jan Mayen (EU-022) through October, all bands 6-160 Meters, using CW, SSB and digital modes.

Kuwait (9K2)

Ray McClure, W8CNL, reports that Bob Furzer, 9K2ZZ, is again active from Kuwait and will be there for about one year. Bob requests no QSL cards be sent via the bureau and all requests by sent via Ray, his QSL manager. Be sure to include an SASE with your request.

Laos (XW)

The recent DXpedition to Laos netted some 22,000 contacts according to Eric Sjoland, SMØAGD, one of the operators and the QSL route. Operating with two calls XW30 and XW30A, Eric already had a stack of QSL cards waiting for him when he got home.

Maldive Islands (8Q)

The 8Q7AA DXpedition to the Maldives (AS-013) in January netted some 17,000 contacts. 20 Meters amounted to 4,022, and 40 Meters was 3,623.

Ogasawara (JD1)

Aki Miyazaki, JD1AMA, at one time a very active station on Ogasawara (AS-031), has moved to Tokyo. However, his company does send him back to Ogasawara where he uses his station. The address shown in the Callbook is that of his parents on Ogasawara and should be used for QSL requests.

Peru (OA)

That OA463 prefix heard on the bands recently has been Cesar, OA4QV, who signs with OA463QV to celebrate the 463rd anniversary of the city of Lima.

South Shetland Islands (VP8)

LU1ZC, located at Destacamento Naval Deception, the Argentine naval base on Deception Island in the South Shetland Islands (AN- 010), has been very active. The station had logged in over 10,000 contacts at the beginning of the year. You might want to turn your beam south if you need this one. Most of their operation is on CW.

St Brandon (3B6)

The DXpedition to St. Brandon Island (AF-015), organized by the Union of Swiss Short Wave Amateurs (USKA) is on schedule. The team plans for four stations to operate continuously around the clock 5-17 May. Operation will take place from Rafhael Isle and will be on all bands, 10-160 Meters, using CW, SSB, RTTY and SSTV. Presently, there are at least 13 members planning to be part of the team. Although no license has been issued as of this writing, they do have written confirmation from the Mauritian authorities, saying that a license for St. Brandon will be granted.

As in most DXpeditions, contributions would be appreciated. Please contact Josef Meier, HB9AJW, for details.

West Malaysia (9M2)

The *Daily DX* reports that Saty, JE1JKL, will be active for the next two years signing with the call 9M2NK from Kuala Lumpur in Western Malaysia. On top DXers will know Saty from his 9M6NA operations. Also active from this one is Ted, 9M2TO, who resides on Penang Island (AS-015).

IOTA

Here is another selection of IOTA activity. Several of these stations are very active and may have been active outside the period indicated. As for your own enjoyment why not keep a record of the number of different IOTA islands you worked during 1998!

Sakhalin Island (AS-018) was well represented this month, and is not included in the following list. All calls from this location have the UAØ or RAØ prefix, with "F" as the first letter in the suffix. Other locations, such as Tasmania (OC-006) are Australian calls with the VK7 prefix. These, too, are not included. I have not included times or frequencies, but be aware that many of these operations are not limited to the IOTA SSB frequency of 14.260 MHz.

AN-006 EM1H	Galindez Island	08-31 Jan
AN-006 VP8CTR	Argentine Island	11-21 Jan
AN-012 KC4AAC	Anvers Island	10-25 Jan
AN-016 KC4AAA	Antarctica	08-28 Jan
AN-016 R1ANL	Antarctica	06-31 Jan
AS-005 RAØBK	Dickson Island	03-24 Jan
AS-008 7K3EOP/1	Miyake Island	23-28 Jan
AS-012 JM6CIP/6	Amakusa Archipelago	3-11 Jan
AS-015 9M2TO	Pinang Island	09-31 Jan
AS-017 JR6EA	Okinawa Island	06-14 Jan
AS-031 JD1AMA	Ogasawara	10-14 Jan
AS-043 JA6FAK/1	Nampo Archipelago	03 Jan
AS-045 HL5FUA	Ullung Island	08-31 Jan
AS-053 HSØ/IK4MRH	Phuket Island	07-31 Jan
AS-079 JH3QFL/6	Miyako Island	26 Jan
AS-111 7Z1IS/P	Tarut Island	30-31 Jan
EU-009 GM3POI	Orkney Islands	01-23 Jan
EU-012 GM4AGX	Bressay Island	28 Jan
EU-012 GM4LBE	Shetland Islands	16 Jan
EU-016 9A2GF	Brac Island	14 Jan
EU-020 SM1BIQ	Gotland Island	02-03 Jan
EU-029 OZ/DL8AAM/P	Als Island	01-02 Jan
EU-029 OZ1ENH	Falster Island	08-20 Jan
EU-031 IC8AMR	Ischia Island	09 Jan
EU-031 IC8SDL	Capri Island	26-28 Jan
EU-037 SM7DLZ	Oland Island	01-31 Jan
EU-042 DK8OL	Sylt Island	10 Jan
EU-044 LA8NGA	Mageroya Island	22-30 Jan
EU-046 LA5TFA	Tromsoe Island	24-30 Jan
EU-046 LA2HGA	Ringvassoey Island	11 Jan
EU-046 LA1CI	Ringvassoey Island	03 -17 Jan
EU-046 LA5QFA	Isle of Vanna	04 Jan
EU-049 SV8CRI	Lesvos Island	01-18 Jan
EU-052 SV8ZS	Zakinthos Island	17 Jan
EU-052 SVØFM/M	Kefalonia Island	03 Jan
EU-056 LA4GHA	Gossen Island	14-25 Jan
EU-057 DL5KUD	Ruegen Island	28 Jan
EU-060 SV1TP/P	Euboea Island	03-31 Jan
EU-067 SV8EUA	Syros Island	15 Jan
EU-070 TM5CRO	Porquerolles Island	15-19 Jan
EU-070 F6OYU/P	Porquerolles Island	03 -04 Jan
EU-082 U1ZA/A	Kildin Island	06-19 Jan
EU-084 SMØDL	Lindingo Island	20 Jan
EU-096 OH1LU/P	Reposaari Island	22-24 Jan
EU-098 DL2BUE	Poel Island	26 Jan
EU-124 GWØHGN/P	Anglesey Island	20-25 Jan
EU-130 IV3KTY	Grado Island	19 Jan
EU-131 IK3PQH	Lido Island	04 Jan
EU-131 IL3/IK3JLS	Pellestrina Island	03 Jan
EU-133 R1ASP	Kotin Island	03-29 Jan
EU-146 PA3ACA	Burgh-Haamstede I	10 Jan
NA-013 YN1KDM/4	Corn Island	25 Jan
NA-036 VE7IM	Vancouver Island	23 Jan
NA-036 VE7IU	Vancouver Island	13 Jan
NA-041 KL7AK	Douglas Island	11 Jan
NA-051 VE7QCR	Graham Island	14 Jan
NA-055 AA1KS	Moose Island	19 Jan
NA-055 AK1L	Vinalhaven Island	01-29 Jan
NA-057 N7QXQ/HR6	Roatan Island	17-19 Jan
NA-058 W1WEF/M	Jekyll Island	06 Jan
NA-062 W2SF/P	Florida Keys	05-26 Jan
NA-065 KK7JP	Whidbey Island	14 Jan
NA-110 K9JWV/4	James Island	06-25 Jan
NA-110 AA4V/P	Isle of Palms	11 Jan
NA-138 N5VL	Amelia Island	20 Jan
OC-011 V63KU	Moen Island	02-25 Jan
OC-022 YC9BU	Bali Island	26-28 Jan
OC-042 4F3CV	Luzon Island	17-19 Jan
OC-059 V63AO	Kosrae Island	20-22 Jan
OC-109 YC5XVP	Natuna Selatan Is	08 Jan
OC-129 DU7LA	Negros Island	31 Jan
OC-130 DU9HKD	Mindinao Island	19-27 Jan
OC-133 9M6ST	Labuan Island	31 Jan
OC-137 VK4YI	MacLeay Island	23-29 Jan
OC-141 VK8KTC	Groote Eylandt	05 Jan
OC-143 YC6HDF	Sumatra Island	06-31 Jan
OC-143 YB5QZ	Sumatra Island	20-23 Jan
OC-148 YC9NBR	Timor Island	05-30 Jan
OC-166 YC7JKS	Kalimantan Coastal	11 Jan
SA-008 CE8ABF	Tierra del Fuego	20-23 Jan
SA-008 LU8XPD	Tierra del Fuego	30 Jan
SA-026 PP5MCB	Santa Catarina Island	04 Jan
SA-028 ZW2ST	Sao Sebastiao Island	25 Jan
SA-064 CE7AOY	Isla Las Huichas	04-18 Jan

And from our Canadian friends to the north, we learn that all VO1 calls count as Newfoundland Island (NA-027) and the VY2 calls are that of Prince Edward Island (NA-029). However, some VO1 calls may count as coastal islands around Newfoundland (NA-198).

425 DX News reports that JW1BJA is active from Bear Island (EU- 027) on 160 Meters. They also note that the Long Island operation by Dave, VE3LDT/VO1, on 2 September 1997 will count as NA-198, Newfoundland's Coastal Islands.

Gary Stilwell, KI6T, will be active from Santa Catalina Island (NA-066) for about a month 16 March-13 April. He may be using the special call K6T 16-20 March. Incidentally, Gary is an old-time DXer and several years ago he was #1 on the Honor Roll and is a former DX Editor for ***Worldradio***. Gary's former call is W6NJU. Now do you guys remember?

Marc, ON5FP, will be active during this summer's RSGB IOTA contest from St. Tudwalls Islands (EU-106) signing with MWØ/ON5FP.

According to *The Daily DX* Didier Bas, F6ELE, and Bertrand Banlier, F6HKA, will be in Quebec during the first half of July and plan to activate some of the islands. Included will be Harrington Island (NA-084). Incidentally, VE2LJ was very active from there several years ago and is no longer on the island. This one also counts for CQ Zone 2.

IOTA reference numbers

The following IOTA reference numbers were issued and/or confirmed during 1997:

AF-076 5N4 Gulf of Guinea Group (Nigeria)
AF-077 ZS1 Cape Province - South Coast Group (South Africa)
AF-078 6W Atlantic Coast South Group (Senegal)
AS-125 HS Gulf of Thailand N.E. Group (Thailand)
AS-126 HS Butang Group (Thailand)
AS-127 S2 Chittagong Region Group (Bangladesh)
AS-128 XV Mekong Delta West Group (Vietnam)
AS-129 BY7 Guangdong Province East Group (China)
AS-130 XV Con Son Group (Vietnam)
AS-131 BY7 Guangdong Province West Group (China)
AS-132 XV Fai Tsi Long Archipelago (Vietnam)
OC-217 YB3 Kangean Islands (Indonesia)
OC-218 FK Matthew Island (New Caledonia)
OC-219 YB8 Tukangbesi Islands (Indonesia)
OC-220 VK5 S. Australia State W. Group (Australia)
OC-221 YB0 Kai Islands (Indonesia)
OC-222 YB8 Obi Islands (Indonesia)
OC-223 VK2 New S. Wales State S. Group (Australia)
OC-224 YB8 Tanimbar Islands (Indonesia)
SA-085 CE1 Chanaral Island (Chile)

Most Wanted Islands

Chris Taron, N1HRW, recently ran a survey on the most needed IOTA islands. From his list we have the top ten, by order of rank and percent needed:

1.	AN-014 — Berkner Island	98%
2.	OC-058 FK D'Entrecasteaux Reefs	97%
3.	AS-057 UA0B Uyedineniya Island	95%
4.	AS-106 VU Minicoy Island	95%
5.	EU-063 JW Kong Karls Land	95%
6.	OC-114 FO Raivavae Island	95%
7.	OC-159 ZK1 Mangaia Island	95%
8.	AF-028 7O Socotra Island	94%
9.	OC-057 FO Maupihaa group	94%
10.	OC-062 FO Pukapuka Atoll	94%

There were 150 island groups included in the survey. To review the other 140 island groups you may access IOTA Survey Website at http://islandchaser.com/iotw/survey/world150.htm. This is not an RSGB survey.

If you are looking for a potential DXpedition spot you might want to consider such a spot that is in need by the IOTA community. Of the is-

lands in the survey more than 50 percent still needed the island that ranked 150, that being UA1P Kamabalanitskiy Island (EU-160).

EXPO 98 Award

As of 1 January 1998, Portuguese amateurs have been using special prefixes commemorating the big world EXPO that will be held in Lisbon on 22 May. Amateurs with the CT1 prefix will be using the special prefix of CT98. Those amateurs who have a CT4 prefix will use the special prefix of CS98. Amateurs located in the Madeira Islands (CT3) will use the prefix of CQ98, and amateurs located in the Azore Islands (CU) will use the CU98 prefix. Suffixes remain the same. They are permitted to use these special calls through 30 September 1998.

In addition, their national society will be using the call CT98REP and the special station set up at the EXPO site will be using CT98EXPO.

The national society (REP) is sponsoring a special award for working these special calls. The award — Diploma Lisboa-EXPO 98 — requires 20 points for all amateurs outside of Europe. Each CT98, CS98, CQ98 or CU98 call is worth 2 points. In addition the call CT98EXPO is worth 10 points, while CT98REP is worth 5 points. You may work the same station again on a different mode or modes.

No QSL cards are required. Prepare a list of contacts including the usual log information and have it certified by two licensed amateurs. The award is free but please provide 3 IRCs when applying. Send your request to REP Award/Contest Manager, Apartado 2483, 1112 Lisboa Codex, PORTUGAL. Applications must be sent prior to 30 June 1999. Thanks to Luis Teixeira, CT4NH, for information on this award.

DXCC processing status

The number of unprocessed applications at the DXCC Desk at the end of December was 556 (53,337 QSL cards).

During the year 1997 there were 5,038 applications (368,887 QSL cards) for new awards and endorsements. This compares with 5,621 (406,373 QSL cards) for 1996.

Applications being sent out at the end of December were received about three weeks earlier. A few applications received prior to that time were in the process of being audited, and so had not yet been completed.

DXCC-2000

John Kanode, N4MM, the Roanoke Division Director, reports the ARRL Board of Directors has passed the new rules for the DXCC-2000 program. They go in effect 31 March. Under the new country criteria, no countries currently on the DXCC Countries List will be removed.

QSL return rate

New DXers often don't understand the amount of time it takes for a return QSL card. They think they should receive a return QSL card in an unbelievably short period of time. Rod Elliott, VE3IRF, shares his thoughts on this matter. Although his DXing is limited, he has kept detailed records for the 28 DXCC countries he worked and QSLed for the first time since 01 January 1996. This includes the cards that were sent direct or via a manager. As a result he received 25 cards back, which is 89.3 percent. Of that amount 24 were returned by direct mail.

Rod says the average turnaround was 89 days, a minimum of 17 days and maximum of 220 days. The one that came via the bureau had a turnaround of 435 days. Of the 3 cards outstanding they are 106, 18 and 10 days outstanding.

Charles Johnson, AB7SL, adds to the above stating he has been DXing since March 1996 and out of the 158 countries worked he has 141 confirmed. Charles says he uses business size envelopes and uses green stamps.

However, Bob Wanderer, AAØCY, claims a 99.99999 percent return rate! Bob uses mint stamps instead of IRCs or green stamps. Bob says he has operated as DX and preferred to receive mint stamps. Mint stamps are available from several sources.

Slim

Seasoned DXers are all familiar with the term Slim. For those of you new to the game who are not familiar with this expression Slim is simply the term for a pirate or bogus operation. You work someone whom you think is DX and you find out later that the call was pirated by someone who wasn't there at all, or maybe even an unlicensed operation. Some of us might even classify the famous Don Miller operations as such. I believe the term was coined by Hugh Cassidy, WA6AUD, editor of the now defunct *West Coast DX Bulletin*.

Of these Slim operations there have been some really humorous operations which have been brought to light recently.

In reference to ZL9AI and VKØYQS showing on the bands this past January, Zack Widup, W9SZ, writes, "The funniest QSO I had was with VR8B when she said she was on Ducie using a rhombic antenna. I later asked Brian Young, VR6BX, about this, and he told me Ducie is

DX Prediction — April 1998

Maximum usable frequecy from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 939, Vienna, VA 22183.) 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/Tokyo, Oceania—Australia/Melbourne, Europe—Germany/Frankfurt, and South America—Brazil/Rio de Janeiro. Chance of contact as determined by path loss is indicated as bold ***MUF** for good, plain MUF for fair, and *in parentheses* for poor. UTC in hours.

CENTRAL U.S.A.

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	19	14	*24	13	*18
10	23	*12	*20	*(12)*	*19
12	*32	*17	*18	*20	*22
14	*36	*19	18	*23	*29
16	*36	17	17	*24	*34
18	*36	*(14)*	16	*22	*36
20	*29	24	*30	19	*38
22	*25	*26	*36	14	*38
24	*21	*24	*38	12	*32
2	*19	22	*36	*11	*26
4	*19	*19	*34	*17	*22
6	*22	16	*28	*15	*20

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	*(15)*	*18	*24	13	*20
12	*(20)*	*16	*20	*(12)*	17
14	26	*19	*17	*20	*26
16	29	*17	17	*23	*32
18	*31	*(14)*	16	*22	*36
20	*29	*23	*30	19	*38
22	*25	*28	*36	*(13)*	*37
24	21	*31	*39	*(12)*	*35
2	*19	*31	*38	*(11)*	*29
4	*19	*28	*37	*19	*24
6	19	*26	*34	*17	*21
8	17	*21	*28	*15	*18

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	*20	14	*23	*12	*19
9	21	*12	*20	*17	*19
11	*30	*18	*19	*22	*22
13	*35	16	19	*24	*28
15	*36	14	17	*25	*33
17	*36	*(13)*	*(16)*	*23	*36
19	*32	*(16)*	24	*21	*38
21	*27	22	34	*15	*37
23	*23	24	*37	*14	*35
1	*20	21	*36	*12	*29
3	*16	*18	*34	*11	*24
5	*23	16	*28	*14	*21

uninhabited and probably not big enough to support much of a rhombic."

Zack also mentioned VU2JPT, John in Calicut. The station often showed on 20 and 40 Meters CW. One evening Zack heard him on 40 Meters extremely loud with a whip antenna, and claimed to be using a beam the following evening with the same signal strength. The last time Zack heard him was on 20 Meters CW at the frequency of 13.998 MHz. However, VU2JPT is listed as a legitimate call.

Stan Chen, N3KK, adds to this. "If he's Slim he sure went beyond the call of duty. A few weeks ago I was rather shocked to see a card from VU2JPT in my bureau shipment for a 40 Meter CW contact in March 1994. It was from a Percival Santoosh John in Calicut Kerala with the QSL Manager listed as VU2FWW." Stan had also assumed that this one was Slim, but was the first time he had heard of pirates sending out QSL cards!

Yes, we have heard of that before. The fictitious Cray Island DXpedition several years back comes to mind. I think the call was KL8AA and he sent out QSL cards. Jim Simon, W1YY, mentions his contact with 1Z4NG, as in 1Z4 No Good, back in the 1970s. Said to be operating from a Nordhay Island, whoever it might have been was an excellent CW operator. Several months later a QSL card arrived from the bureau!

As for that ZL9AI who had been on the bands, Leith Jennings, ZL2AL, checked with the New Zealand authorities who told him that no such license has been issued. There are no planned operations from Campbell or Auckland islands in the future. VKØYQS is a legitimate call on Macquarie Island. However, it is a restricted call allowed on VHF only, certainly not on 40 Meter CW where he had been operating.

QSO or QRM?

One of our deserving DXers recently was observing 5H3HG working pileups. Soon appeared many jammers on his frequency. Evidently, they did not prefer his mode of operation as he was "rag chewing" a bit with each of his contacts. Does this apply to you? Do you deliberately cause interference if you cannot make a contact? Probably not, as ***Worldradio*** readers have more class!

30 Meters

An SWL asked a question on the DX Reflector recently regarding

SSB operation on the 30 Meter WARC band. It seems that he observed SSB operation by a few European stations and wondered if we were now allowed SSB operation on that band. To my surprise it is allowed in some countries. But it is not allowed here.

Rag Otterstad, OZ8RO, adds: "Quite a few countries permit phone also on 30 Meters, but the Ham fraternity has by the IARU Region 1 band plan decided it should be used only for digital modes due to the narrow spectrum available. This is largely respected, with a few rotten apples not complying." In other words, it is a gentleman's agreement to not operate phone on that band.

So, if you hear an SSB signal on 30 Meters do not be tempted to call him on that mode as although he may be legal, you would not.

40 Meter DX net

Fred Laun, K3ZO, informs the DX community that Kareem, HS1RU, who is NCS of the Thailand-Malaysia 40 Meter DX net on 7.060 MHz at 1300 UTC, will listen for stateside stations on 7.153 MHz daily at 1330 UTC.

He may also change to 7.052 or 7.057 MHz to make his calls for stateside stations, listening either side of 7.153 MHz. Try stopping by a little earlier.

'98 Int'l DX Convention

The 1998 International DX Convention is almost here. Sponsored this year by the Southern California DX Club, the annual bash is back in Visalia at the usual place — the Holiday Inn. Mark your calendar for the weekend of 01-03 May.

Pre-registration is $55 (prior to 15 April) and includes a hosted cocktail party, all sessions, Saturday evening banquet, Sunday morning breakfast buffet, and a pre-registration prize.

Send your registration to Don Bostrom, N6IC, 4447 Atoll Avenue, Sherman Oaks, CA 91423; 818/784-2590. Additional information is available from Rick Samoian, W6SR, 714/993-0713 after 5 p.m.

For reservations at the hotel call them direct at 209/651-5000. However, most likely they are already full. Other facilities nearby include: The Radisson Hotel 209/636-1111 and the Lamplighter Hotel 209/732-4511. If you don't mind sleeping away from the action, the Radisson is better anyway. Those who prefer the B&B route there is a nice place in Hanford, a short drive to the west, call The Irwin Street Inn, 888/583-8080. It is located in the historical district.

SWODXA Dinner

The Southwest Ohio DX Association announces their 13th Annual DX Dinner to be held Friday, 15 May 1998, at the Crowne Plaza Hotel, Dayton, OH. There will be a cash bar at 6:30 and the dinner at 7:15. Tickets are $30 and must be purchased in advance. Groups wishing to sit together must order in a group, and a table seats eight. Please make your check payable to SWODXA and send to Tom Inglin, NR8Z, 4061 Eaton Rd., Hamilton, OH 45013. Please include an SASE for your ticket return. For additional information contact Steve Bolia, N8BJQ, at 937/788-2803 or e-mail at n8bjq @erinet.com.

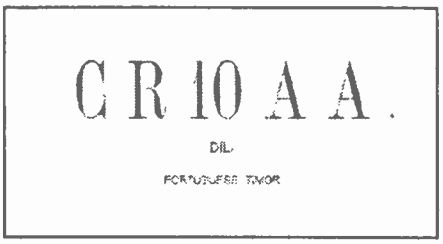
DXers who wish to attend the famous Dayton Hamvention might want to consider a Friday evening with fellow DXers.

Antique QSLs

Henry Elwell, N4UH, was licensed in 1936 when he was 16 years old. He started out as W2JKH with a one-tube transmitter. The following year he graduated to 100 Watts running a 6A6 crystal oscillator, an RK23 buffer, and a 211-A final. Henry provides us with the following YR5ML QSL card from Romania, worked with a 120-foot Zepp. The date is shown as 12 IX 37, translated means day 12, month 9, and year 37.

Some of you newcomers will say, "Big deal, being licensed at age 16." Well, in those days there was no novice license, and you had to build your own equipment. Henry asks if anyone else remembers Macoveanu Liviu, YR5ML. A check in the 1996 Callbook shows Liviu Macoveanu with the call YO3RD.

Longtime subscriber and supporter Jules Wenglare, W6YO, provides us with the second card for this month. Jules was signing with KP4AIO in 1957 when he worked CR10AA in Portuguese Timor. The usual prefix for this one was CR8, but they used the CR1Ø prefix, too. Timor now counts as Indonesia.



Jules submitted this card once before and we ran it 13 years ago in the March 1985 issue. Jules forgot and I forgot, too. Anyway, it is worth running again for you newcomers!

QSL information

The new QSL manager for stations formerly handled by Jerry Branson, AA6BB, is now Ron Lago, AC7DX, of the South Sandwich Island DXpedition Group. Jerry, who died recently, handled QSL chores for several stations, including those operations by the above group.

Alberto U. Silva, LU1DZ, the GACW Coordinator, says not to send green stamps with your QSL request for a contact with LU1ZC. Send an SAE with 2-3 IRCs. Ernesto Grueneberg, LU2BRG, adds that airmail from Argentina costs 1 IRC.

The LU1ZC operation is from Deception Island in the South Shetlands in celebration of the 50th anniversary of the creation of the Argentine Antarctic Base located there. They are not asking extra funds for a QSL card but rather financial support as they are without commercial or institutional support. They prefer IRCs rather than the usual green stamps.

Tom Woodward, NS7J, says he has been listed as a QSL Manager for HH2DF and OX3NB. Although he handled cards for them many years ago, he no longer handles such chores. He now and then gets listed as a QSL Manager, which is not correct. In fact, he sold all his gear after reaching #1 on the Honor Roll.

Those DXers who have access to the Internet may want to view the C.I.S. On-Line Callbook for calls located in the former Soviet Union. According to Andy, UA3AB, the webpage is at http://www.octavia.com.

Thanks go to the following contributors for this month's column: CT4NH, HB9ABO, JA1ELY, LU1DZ, LU2BRG, OZ8RO, RS174461, SP5EWY, UA3AB, VE3IRF, ZL2AL, ZS6P, N1HRW, W1YY, N3KK, K3ZO, WA4JQS, KI4RU, N4UH, NT5C, W5FI, WW5L, N6RT, W6TER, W6YO, AB7SL, N8BJQ, W8CNL, W9SZ, AAØCY, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), American Radio Relay League (K5FUV), Juliet Alpha Cluster (JE1OMO), WebCluster (OH2BUA), 425 DX News (I1JQJ,), *DX News Letter* (DJ5AV), The *OPDX Bulletin* (KB8NW), *Internet DX Mailing List* (VE7TCP), *The Low Band Monitor* (KØCS), *Island / DX News* (W5IJU), *The Daily DX* (W3UR), *QRZ DX* (N4AA), & *DX News Sheet* (G4BUE).

You should give some very serious thought to applying for the operating award that is truly prestigious. That's because it is much more difficult than a similar award. I'm talking about the Worldradio's Worked 100 Nations award. The criterion here is the actual and really sovereign and independent NATIONS, not so-called "countries".

73 de John N6JM

KA1T steps down as New England Vice Director

Don Haney, KA1T, of Harvard, Massachusetts, has resigned as ARRL New England Division Vice Director, effective 15 February. Haney is moving to Wausau, Wisconsin, and will no longer be eligible to serve. Haney, 58, was appointed as Vice Director in July 1996 and later was elected in his own right to the 1997-1998 term. No one has been named yet to fill the vacancy. — *ARRL Newsletter*

DXpedition to new island

Worldradio will be sending a select group of amateurs to a new island that has appeared due to volcano activity. This will be a grand opportunity for those selected to make Amateur Radio history by activating a new island.

The new island is located in the South Pacific at 30 degrees South latitude and 130 degrees East longitude. The island is claimed by Australia and has been named "Batguano Island".

We will be operating using the call WR6WR/V4026R with operation in the 2 Meter, 220 and 440 bands, using a 96 element Quad antenna on a 485 ft boom with 5 watts of power. Frequencies will be 143.890, 221.990 and 419.990, all simplex frequencies.

Amateurs interested in being a part of this event should be able to earn DXCC on all three bands within 12 hours. We are encouraging applications from all amateurs, regardless of license class. For more information call 1-800-555-0000 or see web information at: http://www.IamAnAprilFool.com

FCC to limit power on dual band mobiles!

An immediate change to Amateur Radio rules regarding output power of dual band (2 Meter – 70 Centimeter) mobile radios will be going into effect 01 April 1999. All dual band radios in service after that date will be limited to .5 watts of output power.

This action was requested by the Tele-Signal Corporation of Cove Fort, Utah, a major manufacturer of highway traffic signals. The next generation of computer-controlled traffic signals is subject to RFI from mobile radio equipment operating in the 2 amateur bands, with the traffic light being forced to display green, yellow and red simultaneously for all directions of travel.

For more information call 1-800-555-0000 or see the website:http://www.fcc.gov/IamAnAprilFool

QSL managers

These QSL routes are correct to the best of my knowledge, and come from several sources. Please report any errors. — N6JM

1AØKM —IØMRM
1B1/OE5GML—OE5GML
1X1AO —UA6WAR
3A/DF8XC —DL1YFF
3A/DJ7RJ —DJ7RJ
3D2AO —DL7VRO
3D2IO —DL7VRO
3D2QB —SM3CER
3DA0CA —W4DR
3W6JQ —JA1IED
4B1AC —XE1BEF
4G2X —VE7DP
4G50N —DU9RG
4JØFR —F6AJA
4JØGAT —DL1VJ
4J1S —4K9C
4J8ØADR —4K9C
4J8DX —RW6HC
4K8F —UA9AB
4KA5CW —4K9C
4LØCR —IK7JTF
4L1DX —OZ1HPS
4L1UN —IK7JTF
4L4MM —ON4CFI
4L6YL —4Z5CU
4L8A —OZ1HPS
4NØAV —YU7AV
4NØS —YU7JDE
4N7ØDX —YU1DX
4N7ZZ —YU7FIJ
4N9AT —YT1AT
4O9S —YU7KMN
4S7SW —ON6TZ
4U1VIC —LX1TI
4U1WB —KK4HD
4XØAE/SK —4X4FD
4XØAT —4X1AT
4XØBL —4X4BL
4XØBO —4X4BO
4XØFB/SK —4X6UO
4XØFR —4X4FR
4XØOX/SK —4Z5DW
4XØVN/SK —4X6WP
4ZØDS/SK —4Z5AD
5B4ADA —9A2AJ
5B4AGC —G3LNS
5H3HG —N5HG/WY3V
5H3ID —IN3BXL
5H3TA —I4QAL
5JØT —YU1FW
5NØT —F2YT
5NØYL —F2YT
5N3CPR —SP5CPR
5R8FK —NY3N
5V7GL —EA5WX
5X1T —ON5NT
5Z4RL —N2AU
6D2X —K5TSQ
7Q7SB —AB4IQ
7S5BE —SK5BE
7XØAD —EA4URE
7X2EA —F6FNU
7X2RO —OM3CGN
7Z1IS —SMØOFG
8P6AZ —KU9C
8P6CV —KU9C
8P6DA —KU9C
8P9AP —K2WE
8P9DX —VA3DX/VE3ICR
8P9FX —G3RFX
8Q7AA —N7TX
8Q7BE —DL8NBE(4)
8Q7BV —HB9DIF (4)
8R3ØK —OHØXX
8S3FRO —SM3CVM
9A11ELS —9A2AA
9G1AA —PA2FAS
9G5BQ —PA3GBQ
9G5SW —G3VMW
9G5VJ —G4ZVJ
9G5XA —G3XAQ
9G5ZM —G3ZEM
9H1EL —LA2TO
9J2BO —W6ORD
9K2GS —W6YS
9K2MU —WA4JTK
9K2RR —KU9C
9K2SN —W6YJ
9K2ZZ —W8CNL
9M2KQ —JA1XQC
9M2NK —JE1JKL
9M2TO —JAØDMV
9N1ARB —KV5V
9N1AT —JH8XIX
9N1FP —RU6FP
9N1UD —K4VUD
9N1XI —JH1XIX
9N1ZS —JH8XIX
9V1YC —AA5BT
9XØA —DL5WM
A22BW —KB2MS/KB2UCO
A35RK —W7TSQ
A61AJ —W3UR
A61AM —KA5TQF
A61AP —IK7JTF
A61AS —YO3FRI
AA8LL/C6A —AA8LL
AP2AP —JA1EZM
AP2JZB —K2EWB
AP2KSD —IK7JTF
AP2WAP —IK4ZGY
AX1FF —WB2FFY
BA1DU —W3CH
BA4TB —HH2HM (3)
BUØYL —BV2RS
BVØDX —UA9CIY
BY1QH —K9FD
C42A —DK4VW (2)
C56/G0SAH —GØSAH
C91JM —W7MAE
CL8VP —HI3JH
CN2GE —OE3GEA
CN2IB —OM1APD
CO2CI —KA4KLU
CO2WF —VE2EH
CO3ET —WD4OIN
CO8ZZ —HI3JH
CO8ZZ —HI3JH
CQ98BM —CT3BM
CQ98FF —CT3FF
CS98NH —CT4NH
CS98NQ —CT4NQ
CS98UW —CT4UW
CT3FN —HB9CRV
CT98AHU —CT1AHU
CT98AMK —CT1AMK
CT98AUO —CT1AUO
CT98AXS —CT1AXS
CT98CBI —CT1CBI
CT98DNP —DJØMW
CT98EEN —CT1EEN
CT98EIL —CT1EIL
CT98FIJ —CT1FIJ
CT98FLJ —CT1FLJ
CT98FMX —CT1FMX
CV1F —CX6FP
CYØDX —VA3EU
D2AI —CT1EGH
D2BB —W3HNK
D68YN —HB9CYN
D68YV —HB9CYV
DKØJBN —DL5JBN
DU1ØØKT —DU1KT
DU1ØØRG —DU9RG
DU1ØØSAN —DU1SAN
DU3NXE —W4NXE
DX2B —VE7DP
DX3F —VE7DP
DX6P —VE7DP
E21CJN —W3PP/K3WUW
ED6IDR —EA6QY
EK17ØØJJ —GW3CDP
EK6CC —N8BGD
EK7DX —DL1VJ
EL2CE —WB2VFH
EM1HO —I2PJA
EM5UNG —UT3UZ
EM7V —UR7VA
EO7V —UR7VA
EP2MKO —UA6HCW
EP3ER —I2MQP
ER5AL —RW6HS
ER7A —ER1DA
EW3LB —W3HNK
EX2M —HH2HM (3)
EX8DX —IK2QPR
EY8AM —DF3OL
EY8XX —GW3CDP
FG5FC —F6DZU
FG7AG —F2GA
FK8GM —WB2RAJ
FM5GU —WA4JTK
FOØBRD —N6RT
FOØGUI —F5UIV
FOØKEO —N7CQQ
FOØMJT —W6RW
FOØPLA —W8AEF
FOØSPE —KG6AR
FO5VO —N6VO
FO8DX —KG6AR (1)
FP5BZ —F5TJP
FP5CJ —VE2FB
FP5EJ —K2RW
FR5VZ —F8VZ
FS/K3DI —K3DI
FS/K7BV —K7BV
FS5PL —NØJT
FT5WG —F6APU
FT5X/FR5HR—FR5HR
FT5XN —F6PEN
G6T —G3NYY
GB800SA —GØREP
GM6V —GM4DMZ
GM6Z —GMØKWL
GU/F5SGI —F5SGI
GXØSTH —G4DIY
H44IO —DL7VRO
H44IQ —DL7VRO
HB0/HB9LEY—JH1BSE
HF0POL —SP3BGD
HH2PK —HH2HM (3)
HI3FVA —KG8JK
HI3HN —DH2JD
HL5KY —W3HNK
HP3XUG —KG6UH
HR1SAX —W3HNK
HSØ/OH2EA —OH2EA
HSØ/VK3DXI—DL6DBR
HSØCRU —DL2FDK
HSØZAA —KM1R
HS1RU —JG3AVS
HS2CRU —DL2FDK
HS6CMT/3 —JA7FYF
HV4NAC —IK0FVC
HZ1AB —K8PYD
IC8R —I8RIZ
II7DX —IK7MCJ
IO2L —I2OKW
IO7A —IK7DXP
IQ1A —I1JQJ
IQ1Z —IK1NLZ
IQ2S —I2JSB
IQ4KID —IK4BWC
IQ7A —IK7XIV
IRØI —IKØOZB
IRØMFP —IKØAZG
IR2B —IK2XDT
IR2P —IK2DUW
IR4C —IK4THF
IR6B —IZ6ABB
IR7A —I7ALE
IR9AF —IT9AF
IU7C —IK7RWD
IX5AA —W3HNK
J2ØD —F2GA
J28BU —F5OYM
J28DM —F2GA
J28DP —F2GA
J28FA —F5MXH
J28NG —F6EJI
J7/W2KKZ —W2KKZ
JA8GQJ/JD1—JA8CJY
JH3QFL/P —JH3QFL (3)
JU2DX —JT1KAA
JWØL —G3WFT
JW1BJA —LA1BJA
JW2EGA —LA2EGA
JW9PJA —LA9PJA
JX3EX —LA3EX
JX7DFA —LA7DFA
JY9QJ —DL5MBY
KA4IST/KH5—AC7DX
KC4AAA —NC6J
KC4AAC —K4MZU
KC4AAF —K4MZU
KG4AU —WV3N
KG4DZ —W4SD
KG4GC —W4WX
KG4OS —WA4OMS
KG4QD —K4QD
KHØAC —K7ZA
KP3Z —NP3HM
L75AA —LU4AA
LM2SKI —LA2T
LR3Y —LU1YU
LU1ZA —LU2CN
LU1ZC —LU6EF
LU1ZS —LU2CN
LU4D —LU4DXU
LV1V —LU1VV
LX2LX —LX1NO
LY5W —LY1DR
LZØA —LZ1KDP
M6G —G1AHM
MUØW7MAE —W7MAE
MW8Z —G5LP
NØTG/VP5 —NØTG
N2NL/KH2 —W2YC
N4BQW/KH1—AC7DX
N4BQW/KH5K—AC7DX
N9N —KG9N
NP4Z —WC4E
OA463QV —OA4QV
OA8ADM —N8LN
OC463DX —OA4FW
OD5NJ —EA5BJP
OD5PN —LX1NO
OD5SK —KB5RA
OG5F —OH1VR
OH8TA/9 —OH8TA
OK8EAO —DL1CW
ON5ØHRT —ON4CBD
ON5ØKTK —ON4ON
ON5ØLGE —ON5VL
ON5ØLLV —ON6CW
ON5ØLUS —ON7LU
ON5ØNMR —ON4RU
ON5ØONZ —ON6HC
ON5ØOST —ON5UE
ON5ØRAT —ON6DP
ON5ØYLC —ON4AMM
ON5ØZLZ —ON7ZT
OT6P —ON6AH
P4/K2LE —K2LE
P4ØAV —K4AVQ
P43HOT —P43ARC
P49I —K4PI
PJ5AA —N2AU
PJ9JT —W1AX
PQ8MM/P —PQ8MM
PQ8VA/P —PQ8MM
PR4Y —PY4OY
PY3ZM/CT3 —PY3CEJ
PZ5JB —AA3OE
R1ANL —UA6AH
R1ANZ —UW1ZC
R1ASP —RA1AD
R1FJV —UA3AGS
RAØFA —WK6C
RN3QO —N2UCK
RUØB —UA9OBA
RX1OX/FJL —DL6YET
RX9FM —W3HNK
S21YE —G4VLV
S5ØHQ —S57NW
S52A —S56MM
S79KMB —KN2N
S79MAD —GW4WVO
S79MX —HB9MX
S92AT —NJ2D
SPØNOT/P —SP6OF
SU3AM —DL1FCM
SU3FM —SU3AM
SV0LK —DJ4TR
T31BA —DF6FK
T31BB —DF6FK
T88TT —7M1SST
T94B —N9JRQ
T94DO —DL1FDV
T95A —K2PF
T95LGN —HH2HM (3)
TA2FE —KK3S
TA3ZI —DL8OBC
TG9AWS —W3HNK
TG9N —N4FKZ
TG9NX —N4FKZ
TI7/DL6MPG —DL6MPG
TI7/DL8MUG—DL8MUG
TJ1AG —F5RUQ
TJ1GB —K6SLO/WA6SLO
TK1A —DF7RX
TL8CK —F6EWM
TL8PL —F5LNA
TM5CRO —F5RMY
TN4MV —F6HIZ
TO7FFL —F8IDR
TR8CR —F6AJA
TR8RG —F2GA
TT6JE —F6FNU
TT8FC —EA4AHK
TT8GA —F2GA
TT8JFC —WA4ZJB
TT8JWM —N4RXL
TT8KM —F6FNU
TT8SA —IV3VBM
TT8ZB —IK3ERN
TU2XZ —W3HC
TU5GV —F8BEM
TZ6JA —JA3EMU
TZ8SI —DJ6SI
UAØFDX —HH2HM (3)
UAØZDA —RA3AR
UD6DFT —UA9AB
UE1A —RV1AC
UI3DXZ —RK3DXZ
UK8IG —RW6HS
UK8IT —RW6HS
UK8IZ —IK2QPR
UN4AA —DL4ABJ
UN7EG —HH2HM (3)
UN7FJ —HH2HM (3)
UN7JX —IK2QPR
UOØZ —I8YGZ
URØD —UT5DK
UR5U —UR5UW
USØHZ —W3HNK
UTØU —UT5UDX
UT8I —UT8IM
UXØZZ —N3IRZ
UX2M —UR4MZL
UX2MM —DL3BQA
V26A —WB3DNA
V26B —WT3Q
V26DX —KU9C
V26E —AB2E
V26U —W2UDT
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V31NX —N6FH
V31TR —K8BK
V31UY —N6UY
V31VI —N6KZ
V47KP —K2SB
V47XK —LA7XK
V51HK —DL6OBS
V63BR —AA4US
V63KU —JA6NL
V73GT —WF5T
V73UX —V73AX
VE2NSM/HI8—VE2SNK
VI5ØG —VK3ATL
VKØYQS —Slim
VK9EKY —7J6AAK
VK9PG —JR5XPG
VP2EEI —K3DI
VP2ESJ —W5SJ
VP2EZ —W5SJ
VP5/KF6NWQ—JF6WBP
VP5/KQ6SJ —JF6WBP
VP5/N9CK —N9CK
VP5/WQ7X —SP5INQ (3)
VP5CK —N9CK
VP5NC —AA4NC
VP8CTR —DL5EBE
VP8CXV —GØTQJ
VQ9SF —N5SF
VR2MM —JR3JFZ
VR97LC —VR2LC
VR98BG —VS6BG
VU2JPS —VK9NS
VU2TS —I1YRL
WA4DAN/VP5—N0TG
WP2/K9BG —K9BG
WP2Z —KU9C
WP3A —NP4QH
X5ØB —YU7KMN
XE3/I5JHW —I5JHW
XT2DP —WB2YQH
XU2FB —N4JR
XV7TH —SK7AX
XW3Ø —SMØAGD
XW3ØA —SMØAGD
YBØARA/9 —N2AU
YI1AK —AD5W/KC5HWR
YI1FLY —KK3S
YI1US —WA3HUP
YN1KDM/YN4—TI5KD
YQ2R —YO2DFA
YR2R —YO2DFA
YS1RRD —DJ9ZB
YS1X —OH2BU
YTØE —YU1BO
YTØX —YU7AL
YT4I —YU4WU
YT9N —YU7FIJ
YT9W —YT1WW
Z31GB —KN6C/KM6ON
Z32XA —NN6C/KM6ON
ZA1AM —IK1FLE
ZA1MH —Z32KV
ZB2/DL2NWK—DL7UFR
ZD8T —AC4IV
ZF2AH —W6VNR/WA6VNR
ZF2CA —I4ALU
ZK1DI —DK1RV
ZM2K —ZL2IR
ZPØV —ZP5WYV
ZS26BI —ZS1FJ
ZS4K —UA3EAC
ZWØCW —PT2GTI
ZW2ST —PY2AE
ZXØCW —PT2GTI
ZXØDX —PT2GTI
ZXØECF —PY2ASK

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HH2HM — Michel Hamoniaux, P.O. Box 104, 22650 Ploubalay, FRANCE
JE3XRX/HR1 — Masaya Onishi, P.O. Box 5229, Tegucigalpa, HONDURAS
JH3QFL — Takio Hata, 828-1207 Kawahara, Cyuzu 520-2423, JAPAN
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Marv, K6VIV, Mgr.
Victory Blvd. at Buena Vista
1 mi. west I-5

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Mark, KE6OFP, Mgr.
I-880 at 23rd Ave. ramp

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(800) 854-6046
Tom, KM6K, Mgr.
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RT.13 1/4 mi., So. I-295

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Ray, KI7TN, Mgr.
Tigard-99W exit
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Gary, N7GJ, Mgr.
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(800) 444-7927
Phil, N4DRO, Mgr.
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(800) 444-4799
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Exit 161, I-95, So. to US 1

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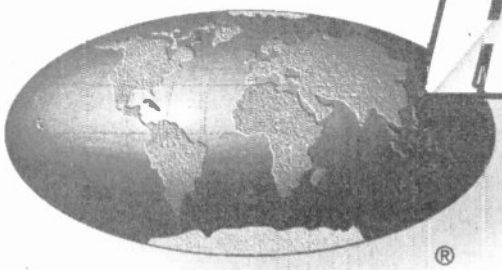

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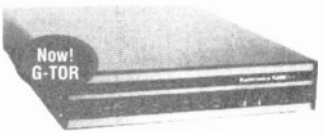

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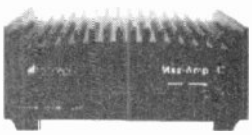

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License class bigotry & mandatory bandplanning

Over the past several months there has been much on-the-air talk and Internet messaging concerning the problem of FM users taking their simplex QSOs into areas of VHF and UHF bands that have, by longtime gentlemen's agreement, been reserved for non-FM modes. I, myself, have suffered at the hands of FM users who have plopped down on top of a relatively weak SSB signal that I was trying to contact. And, I, too, have received the same "...so what are you going to do about it...I have a legal right to be here..." answer when I switched over to FM to ask the interlopers to vacate.

In my opinion, we are now starting to see the fruit of the seed I call "license class bigotry." License class bigotry is the direct result of the intolerant attitude of many higher class license holders in their refusal to accept the new no-code Technician class operators as their equals. As a result, today's newcomers who are primarily no-code Technician class operators are not receiving the same kind of on-air guidance that we of two, three and four generations ago found when we first keyed up.

I travel quite a bit and I carry a dual-band HT with me. When I turn on the radio in almost any city, it seems the only thing I hear on most repeaters is old-time Hams badmouthing newcomers because they did not take, or pass, a Morse code exam. This, in turn, leads to a reaction from the newcomers, who tell the old-line Ham community that: "...your time is over and the era for no-code has come...go away you old men!"

One need not be an expert in human relations to see that as a group, the code-free Technicians are only reacting in the manner that they, as a sub-community, have been treated. The difference between two or three years ago and today is that the code-free Techs finally have the numbers to make themselves heard. About 45% of all licensed amateurs hold a Technician class ticket with two thirds being no-coders. As such, they, as a "class of human beings," are now mocking the old-line attitudes of the long-established Amateur Radio community.

There is nothing really new in all this nor is it an indictment of the no-code Technicians. In my view, any blame lies squarely with the longtime users of our VHF and UHF bands who see all newcomers as inferior beings. I predicted years ago that one result of the intolerance of the established "coded" Amateur Radio community would be the eventual establishment of two totally distinct sub-communities — one made up of code-free Techs who have no interest in upgrading, and the other comprised of everyone else. Now this has come to pass. The question is what can be done about the unpleasant side effects that manifest themselves as incursions by FM users into traditionally non-FM spectrum.

I could go on ad nauseum about the need for the established amateur community to reach out to the new code-free Hams; to welcome them as equals and to educate them in the ways of Amateur Radio tradition, but I also know this is not going to happen. There really is no way to fight prejudice based on a lot of dots and dashes.

A program of educating the code-free Tech newcomers might have done some good a few years ago, but now it's way too late. As a result of the prejudice shown them, they want no part of the rest of us or any training the "coded" Hams might be able to provide. Rather, they are in the process of establishing their own form of Amateur Radio, regardless of what the 'established' amateur community likes or dislikes. And now, they possess the power in numbers to do it.

As a result, the only thing left is to find ways of legally protecting the weak signal, DX, EME, CW, etc. (gentlemen's agreement subbands) from erosion by FM users who want to "talk" and care little where in a given band they do so. After reading countless postings on various Internet remailers and listening to hours of whining and bickering on the air, I have come up with a plan of my own. Requiring a minimum of regulatory change on the part of the FCC. In one short sentence: "Restrict all FM transmissions to established repeater subbands."

Yes, it sounds simple, but it is not without its pitfalls. First, I personally don't like to see restrictions on what are essentially hobby and leisure communications. More important, there is no doubt in my mind that such a restriction will create what amounts to a "no-code ghetto" in the repeater subbands on 2M, and, to a lesser extent in the repeater subband on 70 cm. By now it has to be obvious to all that the majority of code-free Techs have come to Amateur Radio as "communicators." A handful may be involved in public service work but very few are experimenters. Most are people who just want to communicate — primarily with other members of their family unit, and by their own admission, have no real interest in becoming a part of the established Amateur Radio community.

In the meantime, their numbers continue to grow at an unprecedented rate and they are now the majority to be found on 2M in most urban areas. Restricting these people to spectrum now reserved for FM relay and simplex operations will be another step in separating "them" from "us." In other words, it will be the further "ghetto-ization" of 2M and eventually most, if not all, of our VHF and UHF bands. Is this what we want?

Restricting FM to the repeater subbands will also negatively impact the manned Amateur Radio space program. Almost all uplink and downlink communications to the shuttles and to the Russian Mir space station use FM voice or FM packet on frequencies outside the United States repeater subbands. The upcoming International Space Station will also contain a Ham station that will primarily operate FM voice and packet. Recent experiments from Mir have shown that operating over the USA within a repeater subband is close to impossible. So, if we restrict FM to opera-

tion within repeater subbands, how do U.S. Hams hold QSOs with the shuttles, with Mir and with the future ISS?

As you see, even a simple solution is not without adding new problems. I maintain that had we, as a community, practiced the "Amateur Radio brotherhood" we so easily preach, the invasion of traditionally non-FM spectrum by FM users would not be the problem it is today. But as a community we permitted license class bigotry to replace the traditional smile, helping hand and "welcome mat."

Deterring mobile radio theft

I'm going to start out with a premise told me by many a police officer: If a thief has decided he is going to steal your property, nothing *(short of deadly force —ed.)* will stop him.

In reality, all you can do to deter a thief is to make it look as if he's going to have to work hard to get his hands on what belongs to you. That's the reason that vehicle protection devices like "The Club" and its clones have been so successful. They make it at least appear as if it would be a lot of work to remove the device so a vehicle can be driven off without the owner's consent.

Since we're on the subject of automobiles, let's look at mobile operation. Obviously, the best way to keep your radio from getting stolen is to never leave it, or an antenna in/on any vehicle. In fact, my friends in New York City tell me that leaving anything that even looks like a two-way radio in a locked unattended vehicle, for even a very few minutes, is inviting disaster. They say the way they run mobile these days is with an HT connected to a 1/4 wave mag-mount antenna; both of which are removed from the vehicle at the end of a drive.

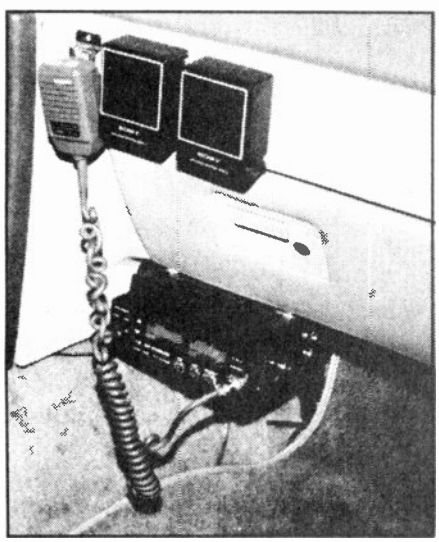

Photo #1. The "I'm in a hurry" under-dashboard installation.

Thankfully, not every locality has the problems of the "Big Apple." Still, even in some of the nation's smallest towns there are people addicted to drugs who will steal anything that is not nailed down and some things that are. Thieves do not know an Amateur Radio transceiver from a stereo or a CB. To them, taking what's yours may bring enough money to get them another "fix." Most will go after anything that they even remotely believe can be sold.

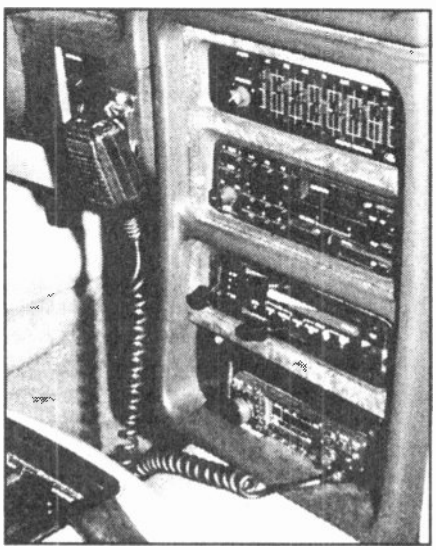

Photo #2. Console mounted radio installation.

An easy target is the installation as pictured in photo #1.

What you have here is a typical "I'm in a hurry" under-dashboard installation using a mounting bracket supplied by the manufacturer. It probably took half an hour to put in place. It's in the public view through any vehicle window. That makes it an open invitation to any thief who might be passing by.

It will take a thief about 15 seconds to break your window, open your door and make off with your radio.

Compare that to photo #2. Can you see the Amateur Radio station? Look closely and follow the wire from the microphone. Yes, there it is at the very bottom of the dash console. This Ham has taken the time to remove the ashtray from his vehicle,

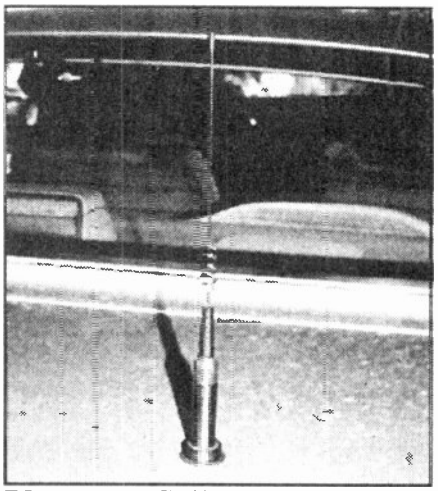

Photo #3. Cellular "look-like" dual band antenna.

fabricate a custom plastic dummy panel and make his radio a part of the car. With the microphone removed and stowed under the seat while the car is unattended, there is little chance that a passing thief would even notice it. And by using one of those short, very common "cellular look-like" dual band antennas as in photo #3, he takes yet another step in cloaking his mobile installation. It's not invisible, but it draws far, far less attention than the installation in photo #1.

OK. Not everyone drives a car with a center console. What about those with only a common dashboard? One of the answers is not to use it! Instead, consider an alternative, less conspicuous mounting, like between the split front seats in this Ford Tempo as shown in photo #4. When away from the vehicle, the Ham who owns this installation simply covers the radio with a bath towel closely matching the color of the car's interior. His antenna is a 1/4 wave 70 cm. whip that's only about 7" tall. Yes, his radio does have remote channel selection from the microphone which, in this case is more of a safety feature than a luxury, since it keeps him from having to take his eyes off the road. Again, it's not a 100% invisible installation, bit it is fairly inconspicuous.

No, these last few paragraphs are not an all-inclusive thesis on how to avoid having your mobile installation ripped off. Rather, with spring and summer fast approaching, it's meant to make you think about protecting your valuable radio gear.

In reality, making ourselves as inconspicuous as possible is about

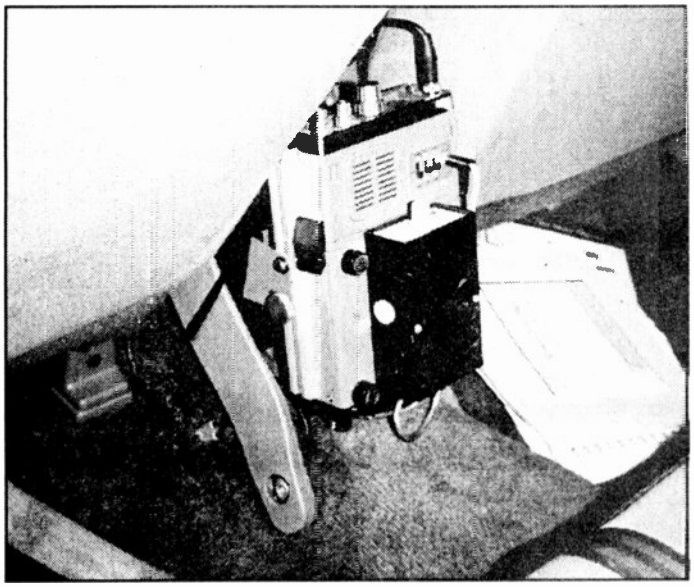

Photo #4. Between the front seats.

all we can do. Yes, a 12" dual-band mobile antenna is not as efficient as its three- or five-foot-long cousin. On the other hand, it, or the ubiquitous 1/4 wave vertical, attracts far less attention. As any trained police officer will attest, the less attention you bring to yourself and your mobile installation, the less chance there is that you will be robbed.

Six Meter idea for FM?

Robert Homuth, KB7AQD, of Phoenix, AZ (grid square DM33xh), appears to have become a regular contributor to this column and we very much welcome his input. This month, Robert has a suggestion for those who enjoy 6M FM. He writes:

"As weak-signal operators do, we 6M FM guys should select one night a week to either call CQ on 52525 kHz FM simplex, or answer CQ calls. Or, pick one time each day — say 0200 UTC, and get on every single day at that time, listening for locals, and the rare skip opening.

"How about a get-together on one holiday, like the CW fans' 'Straight Key Night'? Pick one day, and give a 'CQ' call on 52.525 and 52.540 MHz FM on the top of every hour. How else will you find your local neighbors on the Magic Band?

'Try an 'FM on Six' Field Day setup. Post your activities at the local club, and request reception reports from members and non-members alike who have VHF scanners instead of 6M FM rigs.

"Also recall that 52.525 MHz FM is also one of the 'Wilderness Protocol' simplex frequencies. There is a proposal to the ARRL for the monitoring of 146.52, 223.5 and 446 MHz simplex for campers and hikers out of repeater range. Recommended listening times are on top of the hour at 7:00 a.m., 11:00 a.m, 3:00 p.m. and 7:00 p.m. local time to any of those simplex channels for priority or distress calls.

"While Hams monitoring 146.52 MHz have told me they have not yet had to answer any emergency calls, they have logged a number of Amateur Radio-equipped campers and hikers. All were pleased that someone was listening.

"Finally, and this is very important: If everyone listens on 52.525 MHz simplex but no one calls 'CQ,' how will any of us know if the band is open?"

(You can e-mail Robert at kb7adq @kf7tp.ampr.org)

A note on Nebraska

The state of Nebraska has made a change to the inter-system repeater spacing it uses on the 2M band. The information about the change came in the following note from my longtime friend and fast-scan Amateur Television pioneer John Gebur, WBØCMC. John wrote in part:

"About a year ago, the repeater owner/operators voted to go 15 kHz on the entire 2M band. 145 starts at 145.115 and 146, 147 are the same as the rest of the 15 kHz plan in the directory.

"The vote was overwhelming in favor of the change. As I recall, there were few 'no' responses out of some 100 polled — of which only about 80 responded with a ballot. Maybe it was 8 'no' with 3 or 4 of those being affected by the change, I'd have to dig out the records to confirm it. We followed Colorado's lead."

Travels in May

As the Willie Nelson song says: "...On the road again. Just can't wait to be back on the road again...." Well, in May the "road" will again be at 35,000' MSL. The first excursion will be to the Dayton Hamvention the weekend of 15-17 May. At Dayton, we will be hosting the second annual "Ham Radio Open Town Meeting" which will be fed live to the Internet in "RealAudio." While it's not all finalized at this writing, tentative plans call for open debates and discussions on topics ranging from repeater coordination and overall bandplanning to dealing with the so-called 'hate groups' that have been popping up on the Ham bands.

If you can't make it to Dayton, you will want to take your computer over to the TAPR website (www.tapr.org) and listen in RealAudio to this two-hour presentation.

The weekend of 29-31 May will find me winging my way eastward again to scenic upstate New York for the Rochester Hamfest and Computer Fair. I will be hosting two sessions on Saturday 30 May. In the morning I'll be talking about *Newsline* and what goes into producing each weekly Ham Radio newscast. Later in the afternoon, I will present a "show and tell" talk called "TV News and You." This one will explain what constitutes a news story for television; how Ham Radio fits in TV news stories; how to act in the presence of a TV news crew, what you can and cannot do according to the Part 97 Rules.

I look forward to seeing all of you next month in Dayton, Rochester or both.

A penny saved ..... can be spent at Dayton (or Rochester)!

Lorraine S. Matthew, N4ZCF
MARS Call AAA9PR
E-mail: LoriMatt@aol.com

Army MARS said farewell to Paul St. George/AAA9PM, who served as the MARS Property Manager for several years. He is leaving the Army MARS office for another position with the United States Army Systems Command (USASC). His expertise will certainly be missed by all MARS members, especially by those members involved in the MARS property program. We in Army MARS hate to see him go, but we are pleased that his new job represents an opportunity for him with bright future prospects.

Paul has been with the MARS Property Management Office (MPMO) for twelve years. His accomplishments have been far beyond the normal expectations for all of that time. As Chief Army MARS Robert Sutton expressed it, "His outstanding accomplishments are too numerous to mention."

Paul's normal duties were to preside over and track hundreds of thousands of military surplus transactions over the years, and to be able to account for every piece of equipment that ever passed through the Army MARS system.

In order to facilitate this monumental task, Paul recognized and corrected many of the shortfalls in the property management system itself. He analyzed and developed systems, software, and many other tools which resulted in a successful program for MPMO.

Paul started out in a temporary position as a supply clerk in an office of six employees. He very quickly understood the MARS operation and was influential in the development and implementation of the initial MPMO policies and procedures. Most of these policies and procedures have stood the test of time and are still in use today.

Recognizing the tremendous amount of information that needed to be tracked, and through his own initiative, Paul designed and implemented the MPMO automated property book accounting system, using a complex computerized data base tracking system. This process included learning all the minute details of the system, and writing the program modules that made it all function smoothly. While this is recognized as a great accomplishment, Paul's work in this regard becomes more significant when the fact that he is self-taught on computers and computer programming is considered.

Later, when the initial computer system became obsolete and the Army itself changed computer systems, Paul redesigned and implemented another complex data base that was executed on a completely different computer system. His unique abilities to learn on his own and to adapt that learning provided a seamless transition from one system to another. There were no downtimes or other interruptions in the service to MARS members anywhere. Currently the system tracks over twelve thousand items of military surplus property.

Paul has successfully kept the operating procedures and policies updated and these now constitute Chapter 9 in the new operating manual for Army MARS, the DA PAM 25-XX.

During Operations Desert Shield, Desert Storm, Somalia and others, Paul was instrumental in seeing to it that MARS equipment was shipped overseas to field stations in those locations. His supply expertise was utilized in the shipment of MARS radio equipment and antennas, which are not considered surplus, but are handled in the same manner of detailed control.

In addition to the MPMO, Paul, largely on his own time, developed the official Army MARS home page on the World Wide Web. He volunteered to do this, taught himself HTML programming, and gained authorization to publish the official HQ USASC MARS home page. This page features information about the USASC, Fort Huachuca, and most significantly, Army MARS. It features a map of the United States through which the Army MARS pages developed by Army MARS volunteers in twenty-nine other states are linked. There are also links to pages overseas as well. The pages to which the HQ page is linked are scanned for quality and for appropriate material. Thus, the visibility that has been afforded Army MARS in these pages is of high quality, and features accurate information for those who visit the pages.

Almost 12,000 visitors have accessed the HQ page and the daily rate is steadily increasing. Many of the people who have accessed this page have, most likely, followed the links to other pages as well.

To visit the Army MARS home page and to follow the links to other pages as well, the visitor needs only one address: http://www.asc.army.mil/mars. Take time to visit. You will enjoy the journey.

Mr. Stanley Skomro will be replacing Paul as AAA9PM. I talked to Mr. Skomro and found he has an excellent background for managing the MPMO. He has had experience on both sides of the property arena.

He has 23 years of experience in communications service in the Army, with much of that time in station technical control for three major facilities in Germany, both receiving and tracking equipment throughout the system. His specialty there was in long haul communications, both operational and installation.

Mr. Skomro has studied the MPMO systems at HQ Fort Huachuca, and is well aware of the techniques and systems with which he will be working. He feels confident the system will continue in the seamless manner so crucial to the MARS membership, and the program as a whole.

I feel this transition will be a smooth one, and like all Army MARS members, I wish him a very successful journey in the world of Army MARS.

Looking ahead, Army MARS will continue... Proud, Professional, and Ready.

Search And Rescue Communications

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In the late 1970s, I was asked to be the Utah Civil Air Patrol's emergency services officer. In this capacity, it was my responsibility to take the calls from the Air Force Rescue Coordination Center (AFRCC) activating the CAP to a search mission. I was also responsible for CAP member training and maintaining good relationships with the various federal, state, and local agencies that CAP served.

One of my "tasks" was to field calls from law enforcement agencies and the FAA when someone would call them concerning aircraft wreckage found during a hike or back country trek. The scenario would go like this;

Sheriff: "We've just had a report that someone north of Coalville has discovered a plane crash. Do you know anything about it?"

Me: "We have no active missions or reports of overdue aircraft that I know of, but hang on while I check our list of known crash sites."

I would then look over a list of all the known crash sites and see if there was any match. I might also call on a veteran search pilot such as Ott Webb, N7BRR, and pick his brain. Sometimes I'd come up with a match and could tell the sheriff (or FAA) the site was an old crash. If I couldn't locate any information, the sheriff would have to send someone in and investigate.

This scenario bothered me because in most every case, the crash was an old site, it just wasn't on my list. I did some research and discovered that the list was provided by the AFRCC and listed only crashes the AFRCC knew about, which was some 150 or so listings. As I checked further, I began to find many crashes not on this "official" list.

This spawned a project that took me about 12 years to complete. The finished project was a 600-plus page book listing over 1,500 known aircraft crashes in Utah. I listed them by date, and by latitude and longitude. In the narrative portion I gave a brief overview and listed whether the occupants lived or died in the crash. I provided some charts and graphs showing worst year, worst month, most fatalities, etc.

When it was all done, I printed (at my own expense) 24 copies and had them hard bound. Most of the copies were donated to local libraries, the CAP, the FAA, the AFRCC, the National Transportation Safety Board, and the Salt Lake Airport Authority. Of course I sent one to my mother, and the several leftover copies were sold to a couple of aviation buffs for the cost of the binding. In essence, the 12-year project was all out-of-pocket.

Now here's the rub. It wasn't more than a couple of months after it was done that someone called wanting a copy of the completed data. He told me it was for search and rescue purposes. You have to know that when I started the project, I did it with a typewriter, so the data was not all computerized. He asked me if I'd get it all entered in a computer so he could have an electronic copy.

At first I was flattered that anyone actually wanted this data. The CAP and AFRCC didn't even bother to say thanks for the freebie, so having someone think it was of value was nice. But I began to ask a few questions.

It turned out this fellow was going to incorporate my data into a computer program to locate missing aircraft and sell this program to various federal, state, and local agencies. He said having my data would make it very marketable for Utah agencies. He was also not willing to either pay for my data or share any profits. He was also not going to give away this search program to any volunteer groups. This was, after all, a "for profit" business, he reminded me. Never mind the costs incurred obtaining microfilm records and government records for me to do the research.

My point is this. There are many people willing to purchase equipment and donate time, but in the past years, there's quite an industry that has sprung up to "support" the volunteers. In some cases this involves taking some group or individual's good ideas and hard work and selling it to others with like interests.

I'm always grateful when one group shares its ideas and suggestions freely with other groups. I'm appreciative when someone takes the time to put together a "how to" guide for a construction project beneficial to the SAR and radio community. Over the years I've been an active advocate that we share ideas and suggestions.

The idea is not to go broke supplying stuff to everyone else, however. When "sharing" comes to mind I suggest we should be willing to cover the costs of copying material. This might include disks, mailers, postage, and printing costs. What I personally object to is when someone, using my ideas, wants to make money by selling materials to other volunteers, so they can be better volunteers. It just doesn't fit with my concept of helping one another or helping someone else.

The Amateur Radio community has a reputation of helping each other. My hat is off to those of you who share programs you have written, training material you have produced, and ways to build something that makes the job easier. You have great ideas. I encourage you to make your suggestions, construction projects, net control training, operator training, exercise guides, etc. available to others. If you can do it for free, great! If you need to cover reproduction and mailing costs, great! But spread the word that you have it and let's continue to share

ideas and help each other become better volunteers!

Emergency power

Before you do this, consult with an electrician! After the massive power outages in the Northeast, I decided I must have a better generator for home. I don't want to be in the dark (stop that snickering) and I don't want to be in the dark and cold. So I began my quest for a generator. (I pass along these ideas so you won't make potential fatal mistakes.)

I first talked to someone with generator experience. He works for the local power company and also has a system that powers his house. He gave me the ideas on how to connect the generator to the house and not have to run extension cords all over. He also gave me an idea how large a generator I would need. For my needs, we chose a 4KW continuous duty as the right size for my house. He also corrected my perception on how much I would be running the generator.

My first thought was that I'd be running it 24 hours a day for as long as the power was out. But what, he asked, was my purpose in having a generator? I said, to heat the house, provide some lights, and perhaps recharge the battery bank for the radio room.

He pointed out that I could heat the house by running the furnace for about 30 minutes, charge the batteries, and light the rooms during early darkness - needing the generator for an hour or two in the evening. I wouldn't need to run the generator during sleep hours; only briefly in the morning to heat the house.

I then talked to a neighborhood electrician about connecting this to my house. Again, I learned a great deal about house power. It turns out that my house is wired with 240 volts, single phase. This means that power from the pole comes in with three wires. Two hot wires and a neutral, or ground. The voltage between the two hot sides is 240 volts and the voltage between EACH hot side and neutral is 120 volts.

The electrician said that my 120 volt circuits are balanced in my main breaker box, with some feeds coming from one side of the 240, (i.e. one hot and a neutral) and the other feeds coming from the other side. He suggested a generator that provided 240 volts with the same configuration, two hot leads and a neutral. This way, the generator could be connected to the house.

He also gave me the local requirements for disconnect. You can't have your house hooked to the main line and a generator at the same time! It could be fatal for your generator and utility workers trying to repair lines in your neighborhood (they would'nt expect your generator to be powering their main lines).

Here's the issue. It's relatively easy to connect your house to a generator. You can do it safely. The cost is not prohibitive. You MUST do a couple of things! First, plan what you need. Second, consult with an electrician! If you try to do this without planning and without advice you'll either kill yourself or someone else.

Often you can do the work and purchase your own wiring materials, but have an electrician come and check your work.

This was a great learning project for me. I learned about how power feeds my house. I also have a safe installation I hope I'll never need!

Marginal performance

I was surfing the web and I came across a radio operations guide. One comment that caught my attention: "Don't be satisfied with marginal performance." How true!

Marginal performance happens with poor planning and inadequate preparation. If you've volunteered to be of service, spend the time necessary to do a professional job. Often this involves discovering what is available by way of facilities, power, antennas, etc. You might need to talk with the agency and discover what's actually expected.

Marginal performance isn't something any Amateur Radio operator should tolerate — either in signal quality or in behavior. Invest the time to be prepared.

Share your ideas, share what works, volunteer to lead seminars for your local radio group, volunteer to teach classes to new radio operators. Be safe, have fun. See you next month.

Computers & Basic Stuff

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C.H. STEWART, KD5DL

One can only wonder what God was thinking when He set out to create the universe. If I understand it right, there was absolutely nothing before the beginning. Then God said "Let there be..." a few times, and now we've got more stuff than we'll ever be able to comprehend.

Among the things God created were the things we amateurs now take for granted. Electricity was one of His creations, as was magnetism. Put the two together and you get radio.

We can suppose that electricity has been around since about the time of creation. After all, electrons are one of the most basic building blocks of matter. And we can assume that magnetism has been around just as long because we know that electrons in motion create magnetic fields. But, for at least 4.6 billion years, nobody knew much about either, until our radio heroes came along.

A little over a 100 years ago several bright theorists and researchers discovered how to make and store electricity. One of them, James Clerk Maxwell, theorized that light and electricity shared similar wave structure. However, so little was known about electricity, or how to create electric waves, that Maxwell could not prove his theories.

Then, about six years later, a German, Heinrich Hertz, became interested in Maxwell's theories, and in 1887 he succeeded in demonstrating how to generate electric waves. Hertz's apparatus only worked short distances (no more than several feet). His sender was a coil "oscillator" and his receiver was a loop of metal with two closely-spaced metal balls forming its only gap. When he excited the oscillator coil, and he held the receiving loop just right, a spark would jump the gap. It wasn't much, by our standards, but it helped him demonstrate Maxwell's theories.

In an effort to see how far Hertz's waves would travel another researcher, Edouard Branly, invented a powdered-metal detector he called a "coherer." With it, Hertzian waves could be detected out to 25 yards or so from the oscillator coil.

His coherer was a small glass tube filled with metal powder, and it was attached in series with a battery and an ammeter. The powder did not conduct current very well except when it was excited by the RF in a Hertzian wave; so the meter read nothing until the invisible spark "cohered" the particles of metal well enough to conduct a small current that registered on the meter.

By then Guglielmo Marconi had become interested in Hertz's findings, and had used one of Branly's coherers in his radio experiments. By modifying the coherer with a metal mixture of his own composition, Marconi was able to detect Hertzian waves to almost a mile from the oscillator box.

By adding aerials and ground wires to the sending and receiving boxes he was able, in 1897, to detect signals as far as four miles away. The success spurred him to try higher power and a transatlantic attempt a few years later.

On 12 December 1901, he succeeded. He and his two assistants at Signal Hill, St. John's, Newfoundland, reportedly heard a prearranged signal that was sent from Poldhu on the Cornwall coast of England. The rest is history.

At about the same time another inventor, Canadian Reginald A. Fessenden, devised a way to use a rotating commutator to generate alternating current with a frequency above the range of human hearing. With it, on Christmas Eve, 1906, he sent the first long-range voice and music signals from his Brant Rock station. Reception reports came from as far away as off the coast of Virginia, and later from New York, Washington, D.C. and New Orleans.

Fessenden worked for Thomas Edison as Edison's chief chemist. And, as we know, Edison was the inventor of the first practical electric lamp, among other things. In 1883 he experimented with a special lamp that had a plate element placed in it near the filament, and he noted that current could be made to flow from the filament to the plate. This phenomena became known as the "Edison effect," but no practical use was seen for it.

An advisor of Edison's, Sir John Ambrose Fleming, was also an advisor to Marconi. In 1904 he used the Edison effect to make the first "diode" detector, and discovered it worked vastly superior to the inefficient coherer detectors in use at that time. His invention became better known as the "Fleming valve."

In 1906 an Army General, H. H. Dunwoody, discovered that carborundum, the synthetic silicon carbide abrasive, could also be used as a detector. Another American, Greenleaf W. Pickard, started a search for other crystal detectors, and eventually patented a number of them. Among the best were the minerals galena, iron and copper pyrites, bornite, cerusite, domeykite, molybdenite, niccolite and zincite.

It is interesting that the first amateurs got into radio by building "catwhisker" sets that used some of these minerals as detectors. A minimum-parts receiver consisted of only a detector, a tuning coil, a "condenser" (capacitor) of tin foil and paper, a telephone receiver (earphone) and, of course, an aerial and ground wire.

Meanwhile, Dr. Lee DeForest, experimenting with the Fleming valve, added a control grid to the tube and called the result an "audion." Not only was the audion a better detector than anything before it, it also had the ability to magnify

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10 CLS: REM "MATHMIX.BAS" BY KD5DL, 4/98
20 RANDOMIZE TIMER: B=INT(RND*30)+1
30 FOR C=1 TO B: READ B$: NEXT: PRINT B$;: RESTORE
40 DATA SIN(X/Y),COS(LN(Y^2*Z^3),Rr=,LOG(e^I),
   SINH(1/TAN(Q)),3.00E+06,ATN(,),LOG(dB),/ dB^(B^AX))
50 DATA VE3,ERP,*,7/10E11,*^(E/Rr),+,<e>,~,-j,*dL
60 DATA A/B,X/Y,Watts,COS(LN (J))/SIN(LOG(J))-, Y^X,
   B+A-C,X*X*Y^2,E^,COSH,SINH
70 FOR T=1 TO 1000: NEXT T
80 D=INT(RND*999): IF D>223 AND D<254 THEN PRINT
   CHR$(D);
90 IF D<50 THEN PRINT CHR$(13)
100 PRINT D;
110 Q$=INKEY$
120 IF INKEY$="" THEN 20
```

the feeble currents it detected. The audion was our first triode vacuum tube.

Edwin Armstrong discovered regenerative feedback in 1912, and laid the foundation for an unlimited number of developments in radio to follow. Among his numerous inventions are the superhetrodyne receiver and the principles of FM transmission and reception.

Of course Samuel F.B. Morse gave us the Morse code, but more importantly, a teenager working in one of his telegraph offices taught us how to copy code by ear.

According to the story, Morse's receiving apparatus was a relay-driven pencil that marked a continuously-moving paper tape. Telegraphers would have to decipher the pencil ticks on the tape in order to read the message.

As the story goes, the boy, James Francis Leonard, discovered he could understand the copy just by listening to the distinctive sounds made by the clicking relay. Soon he had the other operators reading messages by ear as well, and the ticker tape became a thing of the past.

Other radio heroes might include Sir Hiram Percy Maxim, founder of the American Radio Relay League in 1914. (Although at least one biographer said he also invented the Maxim machine gun, that credit must go to his father, Sir Hiram S. Maxim. Hiram P., however, did invent the Maxim silencer.)

George Grammer, W1DF, is another. As a most capable technical editor of *QST* he brought thousands of young people into the hobby in the days before the transistor.

Lewis McCoy, W1ICP, and the late Doug DeMaw, W1FB (ex-W1CER), rate high on the list of heroes for many of today's amateurs for making electronic circuits "user friendly" and easy to build. Bill Orr, W6SAI, also shares the spotlight as an official hero.

Then there's George Murphy. If you're not familiar with his name, you should be. He's a Canadian industrial designer who spends much of his spare time writing complex, hi-tech, dry-as-dust technical papers for *QST* and the *National Enquirer* (according to an early biographical sketch).

Despite his claim he is easy to read. A July 1986, article for *QST*, "Aerials—A Lost Art," was a classic in its own right. Not only does it show how adept he is at research (all the article's footnotes came from April issues of the magazine just to show, I suppose, he didn't really need a regular subscription); it also shows his sage wisdom and technical expertise ("You have no space for an antenna? Then why not put up an aerial?").

A year later, in another article, he again hit the nail on the head. "All electronics hobbyists worth their salt strive to impress their friends not so much by the quality of their equipment as by the sheer number of gadgets that have to be turned on before anything actually happens."

Think about it. That's exactly the kind of people most of us are.

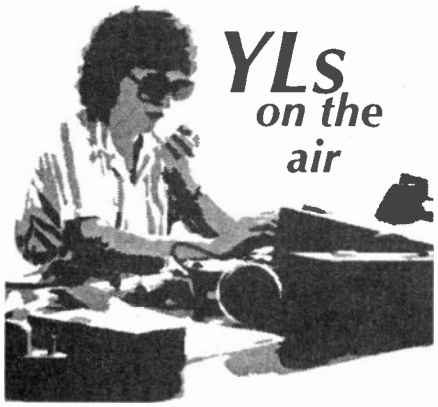
Therefore, this month's BASIC listing is dedicated to George Murphy, VE3ERP, and his philosophy that "...no Ham shack should be without flashing lights that look like they're doing something important."

If you've got a computer in the shack, you need to run this month's "something important" program. Hams and non-Hams alike will be truly awe-struck by the display, and probably will not ask you what it's doing for fear of great personal embarrassment. They need not know it's a screen saver program; if they ask, just tell them you're trying to simplify the physics of horizontal dipoles for the common amateur, or something like that. They'll be duly impressed....

It's not important what symbols or groups you use in the three DATA lines, just so long as there are thirty items total. You can also slow down execution speed by changing the 1000 in line 70 to a higher number. Line 80 prints numbers and Greek symbols and line 90 helps break up the screen display every once in awhile. To stop the program, if you feel the need to, just hold down any key (spacebar is fine) for a few moments to break the loop at line 120.

Again, my sincere thanks to George Murphy for the inspiration to carry out this most worthwhile program. However, until next time, I'll just stick to being radio active, eh?

Turn a friend on to ham radio!



YLs on the air

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Contest Info

Congratulations to the first place winners in YLRL's 1997 Anniversary Party. In the SSB portion, Terrie Tenney, AB7PX, had the top score in North America and Christa Elksnat, DJ1TE, had the highest DX score. Christine Dons, GM4YMM, had the highest DX score, but no North American logs were submitted. Rosel Dach, DL2FCA, had the highest combined SSB and CW score and was awarded the Hager Plaque.

The next event will be the DX to North American YL Contest. The CW portion will run from 1400 UTC 17 April, to 0200 UTC 19 April 1998, and the SSB portion will run from 1400 UTC 24 April, to 0200 UTC 26 April 1998. Rules will be the same as in past years, but the logs will go to the 1998 Vice-President, Cleo Bracket, KØJFO, 810 Towne Square Dr., Fremont, NE 68025. Remember, logs must be postmarked no later than 30 days after each contest ends.

Several changes for YLRL contests have been proposed and are now being considered. Contests will be scheduled on weekends to enable working YLs to participate for the entire contest period. 2 Meter and 6 Meter simplex contacts and RTTY contacts will be permitted for the first time. YLRL membership is not a requirement for participation and all YLs are cordially invited to join in. Complete rules and details are always published in ***Worldradio*** and other Amateur Radio publications.

#1 in 1997. This is sponsored by *CQ Magazine*, which is also published in Spain and France, and requires contacts with one French YL, 20 European YLs, and one European YL who has either participated in or gone on her own DXpedition. I don't have complete details on this award yet but will try to get them.

YL Nets

An easy way to earn some of these awards is to check into some of the YL nets, which can be found on all bands, in all parts of the world. There are YL nets in Australia, New Zealand, Finland, South Africa, Italy, Japan, the U.K., Belgium, Germany, Brazil, the Netherlands, and Canada, as well as in the U.S.

In this country, Irma Weber, K6KCI, opens the YL Open House each Wednesday on 14.288 MHz, at 1900 UTC, and Marte Wessel, KØEPE, opens the YL Tangle Net each Thursday on 14.298 MHz, at 1800 UTC. (Open House will meet at 1800 UTC during DST.) In addition, there are HF and VHF nets in every part of the country. I'll be glad to send you a listing of the nets that are now in operation, and you'll always find a warm welcome when you check in.

Left to right: Marte Wessel, KØEPE, NCS of YL Tangle Net, Irma Weber, K6KCI, NCS of YL Open House, and Lois Gutshall, WB3EFQ, who helps on both nets.

YL Awards

Almost every YL organization issues certificates for working a specific number of YLs. I've just received new rules for the Belgian Young Ladies Club Award, which requires 15 points. These may be earned by working five ON YLs or 3 ON YLs plus ON4YLC, after 16 June 1996. Contacts with the same YL on different bands count toward the award. The fee is $10.00 and the Custodian is Mrs. Leydens Ingrid, ON1DXX, Bake Tuinwijk 29, 9950 Wearschoot, Belgium. This award is available to all licensed operators.

Kurt Bindschedler, HB9MX, who has confirmed contacts with more than 1,550 different YLs, was the first person to earn the EU YL Award and was awarded certificate

YL Updates

Intrepid traveler Unni Gran, LA6RHA, is back from Africa after a grueling adventure. I don't have all the details yet but she wrote me after her return from the climb to Uhuru Peak on Mt. Kilimanjaro — an excruciating ordeal. They

climbed 10-13 hours a day for a week through fog, rain, wind, and sun.

The first day they walked 13 hours

Ann, VE3HAI, and Barc Nutter, VE3HAH, at the CLARA Gala

through a rain forest, with six hours in the dark. The path they started on disappeared as they began to gain some elevation and her hands were raw because she had to drag herself up some places where the path was only mud and swamp. She was trying not to think about all the animals that were watching!

On Christmas evening, they reached the Shira plateau, at 12,000 feet, after climbing 10 hours over stones, waterfalls, and gorges with 90 feet of free fall, and she said the adrenaline was running fast that day. Unfortunately, a bad cold turned into a severe sinus infection, and by the time they reached the 16,000 foot level, she was having nosebleeds and suffering from a killer headache. The guide recommended she not climb the last 2,000 feet so Unni reluctantly stopped there. She said if they had taken the "Coca Cola highway" instead of the "whisky on the rocks route," the climb could have been completed without any difficulty.

After walking 10 hours from her last stop, she stopped at 12,000 feet and still had enough stamina to get on the radio. She hung the dipole she was carrying over her ski pole and made some contacts. As she was sitting in the tent with the radio, an Amateur Radio operator from India entered and introduced himself. Unni also operated /5H1 from Zanzibar. As soon as she recuperates, Unni plans to write a full account of her trip.

Hearing this first-hand from Unni will be one of the highlights at the YL Polar Meeting in Svalbard this August. Ruth Tollefsen, LA6ZH, had received 76 registrations from 14 countries by the first of January. Asia will be well-represented, with 12 people from Japan and 5 from Korea. My husband Mike, WØXM, and I are planning to attend and will meet Guenter, DJ2SL, and Friedl Meissner, DK6FM, in Oslo, then drive to Bergen, and then steam up the coast of Norway for five days to Tromso, where we'll fly to Longyearben. I think Unni plans to put us in a dog sled at that point. This trip is really going to be a lot of fun so if you haven't registered, you can contact Ruth via e-mail at: jetpro@online.no

Raija Maatta, OH7LIX, was in a group from Finland on a DXpedition to northern Guatemala 18 January-5 February, 1998. The call sign used was TGØOH, and CW/SSB QSLs go to Heikki Tamminen, OH3JF, Eprantie 4, FIN-11710 Riihimaki, Finland. (RTTY QSLs have a different route.)

Irma Mishellany, OD5MM, can sometimes be found on the Family Hour, on 14.226.5 MHz, 1500-1600 UTC. Her QSL manager is Margrit Massi, HB9CYH, Zelgstr 5, CH-3027, Bern, Switzerland.

Marte Wessel, KØEPE, is again heading up a special YLRL Scholarship Fund drive and she will be delighted to receive your help with this worthy project. There will be cash prizes awarded at a special drawing at the 1999 YLRL Convention. For more information write to Marte at R. R. 1, Box 73, Liberal, KS 67901-9739; e-mail at: kØepe@rocketmail.com

The time and location for the YLRL Forum at the 1998 Dayton Hamvention have not been confirmed yet. I will serve as Moderator and the speakers will be Nancy Rabel Hall, KC4IYD, President of YLRL, and Nobuko Uchiyama, JR6XIX, President of JLRS. We'll have the latest word available on the Polar YL Meeting in Svalbard, in August, and the 1999 YLRL Convention on the Queen Mary. To locate the forum, just check the listings in the Hamvention schedule or stop by the Buckeye Belles/YLRL booth, which is C-11.

Worldradio's going to Dayton, are you? Stop and say hi. We'll be in booth 49.

The Club Huddle

Mike Flaherty
WA6UBW

P.O. Box 189490
Sacramento, CA 95818-9490

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Sacramento, CA 95821
mikef@bbs.macnexus.org

This past month *The Sacramento Bee* carried reports of three incidents of alleged embezzlement perpetrated by persons with access to their employer's or club's bank accounts. In cases involving alleged theft from a school district and a non-profit organization, employees found ways to divert funds for their own use. In the third case police allege a school PTA treasurer stole the group's $15,000 for personal use.

Those newspaper reports really hit my hot button because I've personally seen this happen. During the 1980s I was vice chairperson of a city-wide mobile home residents association. We were shocked to learn from an annual audit that the treasurer had embezzled $500 by writing reimbursement checks to himself. Only when the board threatened to call in the District Attorney did the ex-treasurer return the money.

Another time I was dining with friends. During dessert a club officer of the group was asked to step outside. On her return, she whispered to me that the person who collected money for dinner and the raffle had disappeared and the group had no funds to pay the $800 owed the restaurant.

Why bring this up in an Amateur Radio club column? First, your clubs have treasuries ranging from a few dollars to $70,000 based on reports in your newsletters. That's a lot of money collectively at risk. Second, one Ham club lost about $10,000 from its bank account last year, and another undertook an audit to determine how much money should be in its bank account. The board of directors had no idea what the balance was.

The president of the first club, a corporation, stated the funds disappeared over a period of two years. Once the board realized there was a problem, it found the treasurer's reports did not correspond with bank records. The board took the matter to the Sheriff's office, which began an investigation.

In the meantime, the board asked members to report cash payments made and provide copies of checks paid to the club. The Sheriff's investigator is working with the board to reconstruct what happened to the funds. The second club simply didn't keep proper records. Its board had no idea wether funds were missing.

In any group a possibility exists that a person may be less than honest. While I was Disaster Services Chairman for a Red Cross chapter, someone stole several pieces of Red Cross and Amateur Radio equipment, including a newly purchased Icom 2-meter radio, which disappeared from the Ham shack during a drill.

So what can a club do to protect itself from such losses? Tim Donovan, WA6UBR, a certified public accountant, offers several caveats to clubs, particularly those which are incorporated. Those boards of directors have a legal responsibility to follow corporation laws of the state in which the incorporation occurred, in addition to what the club bylaws specify.

Donovans' opinion is that a club board must authorize all expenditures in advance of payment, obtain receipts, and that approvals be recorded in meeting minutes. The treasurer must pay only items the board approved.

Under no circumstance can anyone other than the board incur an expense on behalf of the club. I recall an incident when a member ordered a piece of equipment for the club and had the store invoice the club. The amount of the purchase equaled the amount in the treasury. The board faced a major dilemma — pay the bill or renege on the purchase and face the seller in small claims court.

When necessary the board can authorize disbursement of funds, in advance of purchase, to someone for such purposes as buying supplies for Field Day or parts for repeater repair. The person must submit receipts for the expenditure and return unspent funds as soon as possible to the treasurer.

Checks must require two signatures. Groups may authorize the four officers to sign checks since one or more signatories may be unavailable when checks need signing.

He further states the club should have the bank send its statement to an officer other than the treasurer. That person reviews the statement and canceled checks to verify the board approved all disbursements.

He/she also determines that deposits exist for funds received by the club.

The board should have an annual audit of the club financial records. This is best done when the outgoing treasurer transfers the records to the newly-elected treasurer. For an unincorporated group, this can be accomplished by a committee of two or three members who have no role in the financial process.

Incorporated groups must follow state requirements as well as its bylaws. This may require an outside audit performed by a CPA or accountant. The board must plan for this necessity when budgeting for the coming year.

Club-owned equipment can also walk away over a period of time. To minimize this, the board can designate a member as quartermaster. This person should inventory all club equipment, including distinct pieces of repeater equipment. Members who desire to borrow something can then check it out in writing from the quartermaster. The club may wish to establish a maximum amount of time the member can keep the item.

Why should a club go to the trouble of following these recommendations? For one, it helps protect the club assets which the membership has paid for over the years. Also important is the effect a theft can have on the membership.

There will be members who say they can't believe the person stole from the club, especially when the person denies the allegation. Others will accept the allegations as true and want the club to follow through with an investigation, even to the point of calling in the police or district attorney. This can quickly lead to a division within the group, and ultimately its disolution.

Now is the time for your club's board of directors to review its vulnerability to loss and strengthen the protection of its assets. Don't wait until it is too late.

Franklin Institute station to close

A famous ham radio station, long accessible to the public may be closing down for good. Bob Joseweit, WA3PZO, reports via the Hudson Division Loop electronic newsletter that the famous Franklin institute and Science Museum amateur radio station in Philadelphia may be done away with. According to Joseweit, plans call for the station floor space to be converted into offices sometime this summer. — *Newsline*

Tropical Hamboree

Attendance was definitely up at this years Miami Tropical Hamboree, but two things were missing. There were very few youngsters and even less used Amateur Radio equipment.

Vendors in the commercial display area were elated at the size of the crowd and the way that those attending were spending. They say its a lot better than 1997 when attendance and spending was down from previous years.

But, several did remark that there were very few teen or pre-teen age hams in sight. Rather, the crowd seemed to be composed of elderly hams and an almost equal number of non-hams who were busy in the flea market area buying and selling computer gear.

Ironically, new and used computers seemed to be the big flea market item, with little ham gear to be found. In this, the Tropical Hamboree seems to have fallen in line with the trend of most ham radio conventions to become computer swap-meets as well.

The flea market computer deals at this years Tropical Hamboree were very good — if not the best ever. As a result, hams are speculating that it may be that the computer industry that will save ham radio conventions from going the way of the dinosaurs. — *Newsline*

Ice storm efforts earn kudos for Amateur Radio

Hams in Oregon also were called into action in mid-January when an ice storm knocked out power and telephone service, putting much of the Portland area into a bind. ARES members were called in to help handle communication tasks for local emergency agencies.

Ironically, Kevin Hunt, WA7VTD, John Williams, WB7SJL, and Billy Toman, N7WXD, formed the Oregon City Amateur Radio Emergency Service Club just a week before the ice storm hit. Williams says the club has nearly 30 members.

The Hams' ice storm activities garnered great publicity for the hobby in an article in the January 23, 1998, edition of the Oregonian newspaper. The article quotes Oregon City Fire Chief Jim Davis as a strong advocate for ARES. It also mentions other past emergencies in the Northwest where hams were able to provide a helping hand. — *ARRL Newsletter*

WITH THE HANDI-HAMS

The knowledge to make dreams come true.

RICK JORGENSON, KBØQPY

The Courage HANDI-HAM organization has been helping people with disabilities enjoy the hobby of Amateur Radio for over 31 years. They understand that people with disabilities are sometimes on limited incomes and cannot go out and purchase brand new equipment. Having volunteers who can turn old Amateur Radio equipment into working equipment allows HANDI-HAM members to enjoy Amateur Radio.

Rex Kiser, WØGLU, and Ken Williams, WØJKM, are two volunteers who donate their time repairing used, and sometimes broken, radio equipment and turning it into something useful at Courage Center in Golden Valley, Minnesota. With their knowledge and experience, they can turn an old radio into a working rig for a member to purchase at a cost that is affordable. These people want to be able to enjoy Amateur Radio, but do not have the money to purchase new gear. Many people with disabilities are on a fixed income such as Social Security or Supplemental Security Income, (SSI) and want to have the opportunity to enjoy Amateur Radio.

Kiser and Williams know they are making a difference in a person's life by making it possible for them to purchase radio equipment through HANDI-HAMS. Kiser went to electronics school in 1951 and 52. His instructor told him about a beginner's Amateur Radio class. He thought he should give it a try and found he enjoys talking to people all over the world. Rex heard about HANDI-HAMS through Ward Jensen, who was a friend and the owner of an electronics store. He began volunteering for Courage HANDI-HAMS in 1971 doing what he enjoys, fixing and repairing used radio equipment so a person who is on a fixed income has the opportunity to enjoy radio communications.

Another volunteer at the HANDI-HAM shop is Elmer Witham, WØFFS. Elmer adapts equipment for members with disabilities.

Rex invited his friend Ken to join him, so they could work together repairing old radio equipment for HANDI-HAM members to enjoy. They began working together in 1984. They enjoy working together in the repair shop at Courage Center because they realize that they are doing something to enable people to purchase their own Amateur Radio equipment.

Ken says, "Amateur Radio has changed like night and day since Rex and I became involved. The biggest change is the equipment. Forty years ago, you needed a strong back to move the station. Now, it can be tucked under one arm."

Digital modes such as packet, Amtor, and RTTY, which allow amateurs to communicate with each other by using a computer and a Terminal Node Controller (TNC) are big changes to Amateur Radio. Amateurs, even deaf amateurs, are able to leave messages and communicate without depending on having to hear the audio. Another change in Amateur Radio was when modulation went from AM to SSB.

Rex Kiser, WØGLU, and Ken Williams, WØJKM, enjoy their jobs at Courage Center and know HANDI-HAM members appreciate the equipment program. Because of their willingness to share their time and expertise, many Hams around the world enjoy getting on the air with affordable equipment.

Do you need more information about the HANDI-HAM equipment program? Contact Chris Peterson, KGØBP, at 612/520-0513, or via e-mail at handiham@mtn.org. Please consider a donation of usable radio equipment to the non-profit Courage HANDI-HAM System.

Courage HANDI-HAM System, 3915 Golden Valley Rd., Golden Valley, MN 55422; 612/520-0511; handiham@mtn.org; www.mtn.org/handiham

Visit Your Local RADIO CLUB

For information on how to get your club listed in "Visit Your Local Radio Club," plus receive many other benefits, write to:
Club Liaison,
Worldradio,
2120 28th St.,
Sacramento, CA 95818

ARIZONA

Arizona Repeater Association. P.O. Box 35758, Phoenix, AZ 85069-5758. Operates 20 VHF & UHF rptrs. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., APS Bldg., 21st Ave. & W. Cheryl, Phoenix. Info: (602) 849-0851. 9/98

Cochise Amateur Radio Assn., (CARA). Meets 1st Mon./monthly, 7:30 p.m. at club facility on Moson Rd., Sierra Vista, AZ. K7RDG/R 146.76(-) rptr. PL162.2. 5/98

Old Pueblo Radio Club, (OPRC). P.O. Box 42601, Tucson, AZ 85733. Meets 2nd Wed./monthly, 7:15 p.m., Tucson Med. Cntr., Grant & Beverly St. in the AZ Rm. of the Volunteer's Bldg. (1st bldg. on the left going north off Grant). 2/99

Tucson Repeater Assoc., P.O. Box 40371, Tucson, AZ 85717-0371. Meets 2nd Sat./monthly, 7:15 p.m., Dept. of Emergency Mgmt., 130 W. Congress. Net Thurs. 7:30 p.m. 146.82(-), 146.88(-), 147.08(+), 448.550(-) & 145.15 Packet. 3/99

CALIFORNIA

Amador County Amateur Radio Club. P.O. Box 1094, Pine Grove, CA 95665. Meets 1st Thurs./monthly, 7:30 p.m., Jackson Sr. Cntr., 229 New York Ranch Rd., Jackson, CA. Info: call 146.835(-). 3/99

Amateur Radio Club of Anderson, (ARCA). Meets 2nd Thurs./monthly, 7:30 p.m. Amer. Legion Post #746, 1709 Bruce Dr., Anderson, CA. Net every Tue., 7:30 p.m. on 146.64. http://www.snowcrest.net/bgorski/index.html 4/98

Beach Cities Wireless Society. P.O. Box 4016, San Clemente, CA 92674. Meets 2nd Thurs./monthly, 7:30 p.m., Ole Hansen Beach Club, 105 W. Avenida Pico, San Clemente. Rptr. 146.025(+) PL 110.9. 7/98

Coachella Valley ARC. Box 11092, Palm Desert, CA 92255-1092. Meets 2nd Wed./monthly, 6:30 p.m., Portola Com. Cntr., 45480 Portola, Palm Desert. Info: Bill Dews, (760) 346-8611. Net Thurs. 7 p.m. 146.025(+) PL 107.2. 5/98

Contra Costa Communications Club, Inc., WD6EZC/R. P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 0630, Baker's Square Restaurant in Richmond, CA. Info: Ed Caine, KA6OFR, (707) 996-0962. 1/99

Downey Amateur Radio Club Inc., W6TOI. Meets 1st Thurs./monthly, 7:30 p.m., So. Middle Sch. cafetorium, 12500 S. Birchdale, Downey, CA. VHF net W6GNS rptr. 146.175(+) Thurs., 7:30 p.m. 5/98

East Bay Amateur Radio Club, Inc. Meets 2nd Fri./monthly, 7:30 p.m., Albany Sr. Cntr., 846 Masonic Ave., Albany, CA. Info: S. Primbsch, (510) 741-8227. 145.11(-) MHz. 11/98

Fresno Amateur Radio Club. Meets 2nd Fri./monthly, 7:30 p.m., Ernie Pyle School, 4140 N. Augusta, Fresno, CA. 146.94(-) 223.94(-). 11/98

Fullerton Radio Club, Inc., W6ULI. P.O. Box 545, Fullerton, CA 92632. Meets: 3rd Wed./monthly, 7:30 p.m., Sr. Citizens Ctr., 340 W. Commonwealth, Fullerton. Net ea. Tue., 8 p.m. 147.975(-). Info: Bob Hastings, K6PHE (714) 990-9203. 7/98

Garlic Valley Amateur Radio Club (GVARC). Meets last Sat./monthly, 8:30 a.m., Gavilan Restaurant near Monterey exit, hwy 101, Gilroy, CA. Info: Hal, AC6LK, (408) 779-7787. Net Tues., 7:30 p.m. Club rptr. K6THR, 147.825(-). 9/98

Golden Empire Amateur Radio Society, (VEC). P.O. Box 508, Chico, CA 95927. Club call W6RHC, rptr. 146.85(-). Meets: 3rd Fri./monthly, 8 p.m. at 1528 Esplanade, Rm. 101, Chico. 10/98

Livermore Amateur Radio Klub, (LARK). Meets 3rd Sat./monthly, 9:30 a.m., City Council Chamber, 3575 Pacific Ave., Livermore, CA. Net Mon. 1900 on 147.12(+). For info: LARK Secretary, P.O. Box 3190, Livermore, CA 94551-3190. (510) 846-6513. 1/99

Marin Amateur Radio Club (MARC). W6SG. Box 151231, San Rafael, CA 94915-1231. Meets 1st Fri./7:30 p.m., Kaiser Hosp., Bldg. 2, Terra Linda, CA. (except July & Dec.; contact Membership Chair., Pete Wolford, N6IYU, 924-1578). Sun. AM Club at Red Cross, San Rafael. 9/98

Motorcycling Amateur Radio Club. Meets 2nd Sat./monthly, 8 a.m., Lake View Cafe, 2099 E. Orangethorpe, Placentia, CA, at 91 Fwy/Lakeview. Info: Ray Davis, KD6FHN, (714) 551-1036 or (714) 551-2010. 3/99

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 8 p.m., Our Savior's Lutheran Church, 1035 Carol Ln., Lafayette, CA. Net Thurs. 7.30 p.m. on 147.06(+) PL 100Hz. Info: (510) 932-6125. 7/98

North Hills Radio Club. Meets 3rd Tue./monthly, 7:30 p.m., Carmichael Elks Lodge, 5631 Cypress, Carmichael, CA. Nets 8 p.m. Tue., Wed., Thur., 145.190(-) PL 162.2 and 224.400(-). Contact: Bob, AC6HF, (916) 966-3654. E-mail: ac6hf@juno.com or http://www.ns.net/~NHRC 3/99

Orange County Amateur Radio Club. Meets 3rd Fri./monthly, 7:30 p.m., Orange County Red Cross, 601 N. Golden Circle, Santa Ana, CA. 146.550. Contact Bob Buss, KD6BWH, (714) 534-2995. 2/99

Poinsettia ARC. Meets 1st Thurs./monthly, 7:30 p.m., First Christian Church, Telegraph Rd. & Teloma Dr., Ventura, CA. Info: Bill Klope, KB6LJN, (805) 642-4955. 4/98

River City A.R.C.S. Meets 1st Tues./monthly, 7 p.m., SMUD Bldg., Don Julio at Elkhorn, Sacramento, CA. License classes offered. For info contact Lyle, AA6DJ, (916) 483-3293. 9/98

Sacramento Amateur Radio Club. Meets 2nd Wed./monthly, 7 p.m. Sac. Blood Ctr., 32nd St. & Stockton Blvd., Sacramento, CA. Info net at noon on rptr. W6AK/R 146.91(-). Steve Cates, KC6TEV, (916) 391-7341 or Les Ballinger, WA6EQQ, (916) 393-4775. 2/99

Sacramento "Old Timers" Amateur Radio Society and Sacramento Valley Chapter #169 QCWA (Quarter Century Wireless Assn.). Meets 2nd Wed./monthly, 8 a.m., Lyon's Restaurant, 1000 Howe Ave. For info contact Paul Wolf, W6RLP (916) 331-1830. 12/98

Santa Clara County Amateur Radio Assoc., (SCCARA) W6UW & W6UU. P.O. Box 6, San Jose, CA 95103-0006. (408) 249-6909. Meets 2nd Mon./monthly, 7:30 p.m., United Way, 1922 The Alameda, San Jose. Net all other Mon., 7:30 p.m. W6UU/R 146.385(+), 442.425(+) PL 107.2. 5/98

Shasta Cascade Amateur Radio Society, (SCARS). 2124 Airstrip Rd., Redding, CA 96003. Meets: 3rd Wed./monthly, 7 p.m. at the C.D.F. Conf. Rm. Grape St., near Parkview Ave., Redding, CA. Net 146.64, Wed., 8 p.m. 10/98

This month ... Big Island Amateur Radio Club, from Hilo, HI, has won an MFJ Antenna Analyzer to share with its members. The club's name was selected at random from our "Visit Your Local Radio Club" listing.

Sierra Foothills ARC. P.O. Box 1005, Newcastle, CA 95658. Meets 2nd Fri./monthly, 7:30 p.m., Auburn Library (Beecher Rm.), 350 Nevada St. Thurs. nets 7:30 p.m. 145.430(-) PL 94.8, Sun. net 7:30 p.m. 28.415. 3/99

South Bay ARC. P.O. Box 536, Torrance, CA 90508. Meets 3rd Thurs./monthly, 7:30 p.m., Torrance Memorial Hosp., 3330 Lomita Blvd., Torrance, CA. Talk-in on WB6MYD rpt. 244.38(-). Info: (310) 328-0817. 7/98

Southern California Six Meter Club. P.O. Box 10441, Fullerton, CA 92635. USB Net Tue., 7:30 p.m., 50.150. FM Rpt. Net Thurs., 7:30 p.m., 52.86/52.36 tx. FM Smplx, call freq. 50.300. Net Sun., 10 a.m. 50.40. 4/98

Southern Humboldt ARC, (SHARC). Meets 4th Tues./monthly, 7 p.m., Best Western Humboldt House Inn, Garberville, CA. Talk-in on 146.79(-). 5/98

Southern Sierra ARS. Meets 2nd Thurs./monthly, 7 p.m., Veteran's Hall, 125 East F St., Tehachapi, CA. Contact: Caroline, KD6KMN, (805) 822-5995. 147.06(+), 224.42(-), 145.090(S) Packet. 1/99

Stanislaus Amateur Radio Assoc., Inc. **(SARA).** P.O. Box 4601, Modesto, CA 95352. Meets 3rd Tues./monthly, 7:30 p.m., Stanislaus Co. Admin Bldg. 145.39(-) PL 136.5, 224.14, 440.225 PL 136.5. 3/99

Tri-County Amateur Radio Assoc. P.O. Box 75, Claremont, CA 91711-0075. Meets: 2nd Mon./monthly, 7:30 p.m., Covenant United Methodist Church, corner of Towne Ave. & San Bernardino Rd. in Pomona, CA. 1/99

Trinity Country ARC. P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wed./monthly, County School Adm. Bldg. in Weaverville, 7:30 p.m., Rptrs: WA6BXN 146.73(-) PL 85.4, W6HOR 146.925(-) PL 85.4. 10/98

United Radio Amateur Club, K6AA. L.A. Maritime Museum, Berth 84, Foot of 6th St. San Pedro, CA 90731. Meets 3rd Fri./monthly (except Dec.), 7:00 p.m. Monitors 145.52 Simplex 10 a.m.—5 p.m. 7/98

Vaca Valley Radio Club. Meets 2nd Wed./monthly, 7:30 p.m. (Board mtg., 7 p.m.) Vaca Fire Dist. Stn., Vine St. in Vacaville, CA. Rptr. WD6BUS 145.47(-) PL 127.3. Mary Turner, (707) 451-2134. 5/98

Victor Valley Amateur Radio Club. P.O. Box 869, Victorville, CA 92392. Meets 2nd Tues./monthly, 7:00 p.m., Presidio Recreation Cntr., 11100 Apple Valley Rd., Apple Valley, CA. Talk-in 146.94(-), PL 91.5. Net Sun. 7 p.m. 146.94(-). 2/99

West Coast Amateur Radio Club, (WCARC). P.O. Box 2617, Costa Mesa, CA 92628. Meets 3rd Thurs./monthly, 7 p.m., Fountain Valley Sch. Dist. office, 17210 Oak St., Fountain Valley, CA. 145.440(-) PL 136.5. For info: Jane, KD6ODV, (714) 531-6707 10/98

Westside Amateur Radio Club. P.O. Box 11092, Marina del Rey, CA 90295. Meets 4th Tues./monthly, 7:30 p.m., West Dist. Red Cross Bldg., 11355 Ohio Ave., W. Los Angeles, CA (VA Cntr. grounds). Net every Tues., 8 p.m. 146.67(-) except mtg. night. Website: http://www.qsl.net/warc Voice mail: (310) 917-1100. 6/98

Willits Amateur Radio Society, (WARS). 1712A South Main St., Ste. 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. (northwest of Willits). Talk-in: 145.13(-), PL 103.5. 9/98

Yolo Amateur Radio Society. Meets 1st Tues./monthly, 7:30 p.m., Denny's Restaurant, 4120 Chiles Rd., Davis, CA. Contact Dave Nishikawa, KC6YFG, (916) 756-6375/Talk-in 144.430. 10/98

Yuba-Sutter Amateur Radio Club, (YSARC). P.O. Box 1169, Yuba City, CA 95992. Meets 2nd Tue./monthly, 7:30 p.m., Yuba City Police Bldg., 1545 Poole Blvd., Yuba City. 2/99

COLORADO

Bicycle Mobile Hams of America. 46 states/6 nations membership. Annual Forum at Hamvention. Net: 14.253, 1st & 3rd Sun., 2000 UTC. Info, sample newsletter: SASE to BMHA, Box 4009-W, Boulder, CO 80306. 2/99

CONNECTICUT

Tri-City Amateur Radio Club. P.O. Box 686, Groton, CT 06340-0686. Meets 2nd Tue./monthly, 7 p.m., St. Lukes Lutheran Church of Gales Ferry on Rt. 12. Info: Bob Dargel, KA1BB, (860) 739-8016. 11/98

FLORIDA

Gulf Coast ARC. P.O. Box 595, New Port Richey, FL 34656. Meets 4th Mon./monthly, 7:30 p.m., 3852 Prime Place, New Port Richey. WA4GDN rptrs. 146.67(-) & 145.33(-), serving all of Pasco County. 10/98

Port St. Lucie ARA. Meets 1st Fri./monthly, 7:30 p.m., St. Andrews Church, Prima Vista Blvd., Port St. Lucie, FL. Contact: Roy Cox, KT4PA, (561) 340-4319. Call in 146.955(-). 11/98

South Brevard Amateur Radio Club. P.O. Box 2205, Melbourne, FL 32902. Meets 1st Tue./monthly, 7 p.m., Public Library, 540 Fee Ave., Melbourne, FL. 6/98

Vero Beach ARC, W4OT. P.O. Box 2082, Vero Beach, FL 32961. Meets 2nd Thurs./monthly, 7:30 p.m., Emerg. Mgmt., Indian River County Adm. Bldg., 1840 25th St. Net Mon., 7:30 p.m. 146.64. 2/99

HAWAII

Big Island Amateur Radio Club. P.O. Box 1938, Hilo, HI 96721-1938. Meets 2nd Tue./monthly, 7 p.m., Army Reserve Center, 470 W. Lanikaula St., Hilo. Talk-in on 146.88(-). Lunch, 11 a.m. Fridays, Pizza Hut, Puainako Twn. Ctr. 7/98

Emergency Amateur Radio Club, (EARC). P.O. Box 30315, Honolulu, HI 96820-0315. Meets 4th Thurs./monthly, 7 p.m., Lincoln Elem. Sch., 615 Auwaiolimu, Honolulu. Nets: nightly 7:30 p.m., 146.88 & 146.80. Rptrs: 146.76(-), 146.80(-), 146.88,146.98(-), 146.94(-). Info: (808) 833-6944, WH6CZB. 11/98

Koolau Amateur Radio Club, (KARC). 45-145 Mikihilina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Pk., Kaneohe, HI. 4/98

ILLINOIS

Chicago FM Club Inc., (CFMC). P.O. Box 1532, Evanston, IL 60204. 146.76(-) PL 107.2/224.10/224.18/443.75 PL 114.8. Ham help line: (773) 262-6773. Info net Tues., 9 p.m. on 146.76(-). Meets 3rd Wed./monthly, 8 p.m. 7/98

Fox River Radio League. P.O. Box 673, Batavia, IL 60510-0673. Meets 2nd Tue./monthly, 7:30 p.m., Old Bank Bldg., 900 No. Lake St., lower level, Northgate Shopping Ctr. & Rt. 31, Aurora, IL. 7/98

Hamfesters Radio Club, W9AA. P.O. Box 42792, Evergreen Park, IL 60805. Meets 1st Fri./monthly, 8 p.m., Crestwood Civ. Ctr., 139th & Kostner, Crestwood, IL. Nets: Sun. (local) 0100 UTC, 28.410 MHz; Mon. 9 p.m. 146.43 S., Packet Mailbox 145.65 MHz. Info: (312) 974-3291. 1/99

Peoria Area Amateur Radio Club, (PAARC). P.O. Box 3508, Peoria, IL 61612-3508. Meets 2nd Fri./monthly, Red Cross Chapter House, 311 W. John Gwynn Jr. Ave., Peoria, IL. Voice mail: (309) 692-3378. Rptrs: 147.075(+) & 146.85(-). 6/98

Schaumburg ARC. P.O. Box 68251, Schaumburg, Illinois. Meets 3rd Thurs./monthly, 7 p.m., Rec. Center, Bode and Springinsguth Roads. (630) 612-9446. http;//members.aol.com/sarcradio 10/98

The Starved Rock Radio Club, W9MKS. P.O. Box 198, Tabor St., Leonore, IL 61332. Meets 1st Mon./monthly, 7:30 p.m. Rptr. net 7 p.m. Wed./wkly., 147.12(+). 1/99

LOUISIANA

Baton Rouge ARC. Meets last Tue./monthly, 7 p.m., Catholic HS cafeteria, 855 Hearthstone Dr., Baton Rouge, LA. Info: Norma Ramey, WD5GFD, (504) 654-6087. Club rptr. 146.79(-). 10/98

MAINE

Androscoggin Amateur Radio Club. Meets 1st Wed./monthly, 7 p.m., Auburn Police Station, 1 Minot Ave., Auburn, ME. Info: (207) 782-8699. 11/98

MASSACHUSETTS

Quannapowitt Radio Assoc., Inc. 6 Savin St., Burlington, MA 01803. Meets 3rd Fri./monthly, 8:00 p.m., at Lynnfield-Wakefield-Lynnfield Methodist Church, Vernon St., Wakefield. Info: Jim Chamberlain, N1AKG, (781) 944-5098. 3/99

MICHIGAN

Adrian Amateur Radio Club, W8TQE. Box 26, Adrian, MI 49221. Meets 1st Fri./monthly, 7:30 p.m., Civil Air Patrol Bldg., Lenawee Co. Airport, Cadmus Rd., Adrian. ARES net Sun., 9 p.m. 145.37(-). Info: Brian Sarkisian, KG8CO, (517) 265-1537. 4/98

Edison Radio Amateurs Assoc. Meets 2nd Fri./monthly (Sept.-June), 7 p.m., Edison Western Wayne Div. HQ, 8001 Haggerty, Belleville, MI (So. of Ecorse Rd.). Net each Thurs., 8 p.m. on 145.33(-) and 442.80(+) rptrs. 4/98

Genesee County Radio Club, Inc. Meets 3rd Tues./monthly, 7:30 p.m., Genesee Area Skill Center, Torrey Rd., Flint, MI. (810) 655-4360. 3/99

MINNESOTA

Viking Amateur Radio Society (VARS). Meets last Tues./monthly, 7:30 p.m., basement EOC, Waseca, MN. Call-in 146.94(-). 10/98

St. Cloud Amateur Radio Club. Meets 3rd Thurs./monthly, 7:30 p.m., Radio Club Bldg., 401 4th St. N., Waite Park, MN 56387. Info: (320) 255-1410, 146.94 or 147.015 or www.wØsv.org/ 2/99

MISSISSIPPI

Jackson Amateur Radio Club, Inc. Meets 3rd Thurs./monthly, 7 p.m., Am. Red Cross Bldg., Riverside Dr., Jackson, MS 39202. 11/98

NEVADA

Frontier Amateur Radio Society, (FARS). Meets: 2nd Sat./monthly, bkfst. mtg. 8 a.m., Country Inn, SE cor. W. Sunset, Valle Verde, Henderson NV. Club info: Jim Frye, NW7O, (702) 456-5396 or Bill Scarborough, WA6ASI, (702) 269-9551. 8/98

Wide Area Data Group, Inc. P.O. Box 3132, Sparks, NV 89432. Meets 1st Sat./monthly, 8:30 a.m., Bonanza Casino/Restaurant, 4720 N. Virginia, Reno. Info: (702) 356-8200. Call on 147.30(+) MHz. 5/98

Sierra Intermountain Emergency Radio Assoc., (SIERA). Meets 2nd Tues./monthly, 7:30 p.m., Carson Valley United Methodist Church, 1375 Centerville Ln., Gardnerville, NV. Contact: George Uebele, WW7E, (702) 265-4278, 147.330 MHz. 11/98

NEW HAMPSHIRE

Great Bay Radio Association, WB1CAG. P.O. Box 911, Dover, NH 03820. (603) 749-2970/332-9107. Meets 2nd Mon./monthly, 7 p.m., Rochester Community Ctr. Talk-in: 147.57. 1/99

Port City Amateur Radio Club, (PCARC), W1WQM. P.O. Box 1587, Portsmouth, NH 03802. Meets 1st Wed./monthly (Sept.-June), The Edgewood Ctr., 928 So. St., Portsmouth. Rptr. 146.805(-) PL 127.3. 7/98

NEW JERSEY

Bergen Amateur Radio Association, (BARA). P.O. Box 304, Hackensack, NJ 07601. Meets 1st Sun./monthly, New Milford Elks Lodge, Patrolman Ray Woods Dr., New Milford, NJ 07646. Nets: 28.350 Mon. 9 p.m., 146.79(-) 9 p.m. Wed. 6/98

The Garden State Amateur Radio Assoc., (GSARA). P.O. Box 34, Fair Haven, NJ 07704. Meets twice monthly/1st & 3rd Wed., 8 p.m., Bicentennial Hall, Cedar Ave. (off River Rd.) Fair Haven, NJ. Contact: Bob Buus, W2OD, (732) 946-8615. 12/98

South Jersey Radio Assoc., (SJRA), K2AA. Meets Jan.-Oct., 4th Wed./monthly, 7:30 p.m. (Nov.-Dec. 3rd Wed), Bloomfield Fire Hall in Pennsauken, NJ. Talk-in: 145.29(-) rptr. 8/98

NEW YORK

Amateur Radio Association of the Tonawandas, (ARATS). P.O. Box 430, No. Tonawanda, NY 14120. Meets 3rd Tues./monthly (except July & Aug.), 7:30 p.m., Sweeney Hose Co., 499 Zimmerman St., No. Tonawanda, NY. Talk-in: 146.955(-) rptr. W2PVL. 11/98

Genesee Radio Amateurs, (GRAM). N.Y.S. Civil Defense Ctr., State St., Batavia, NY 14020. Meets 3rd Fri./monthly, 7:30 p.m. 147.285(+) W2RCX. 1/99

Hall of Science Amateur Radio Club. P.O. Box 150131, Kew Gardens, NY 11415. Meets 2nd Tue./monthly, Hall of Science Bldg., 47-01 111 St., Flushing Meadow Park, 7:30 p.m. Info: Arnie, WB2YXB, (718)343-0172. 2/99

PROS, Pioneer Radio Operators Society. Meets 1st Wed./monthly, 7 p.m., Sardinia Town Hall, Savage Rd., Sardinia, NY. Net 9:15 a.m. Thurs. 3853 MHz. 3/99

The Radio Club of J.H.S. 22, N.Y.C., Inc. WB2JKJ. P.O. Box 1052, New York, NY 10002. 24-hr. hotline: (516) 674-4072. Fax: (516) 674-9600. Non-profit org. using Ham Radio to enhance the education of youngsters, nationwide. Join us — "Classroom Net," 7.238 MHz, 7 a.m. E.S.T. PSE QSL! 10/98

Suffolk County Radio Club, (SCRC). Meets 3rd Tues./monthly, 8 p.m., Bohemia Rec. Ctr., Ruzicka Way, Bohemia, NY. Talk-in: 145.21(-) rpt. Morten Eriksen, KA2UIU, (516) 929-6911. 4/98

Westchester Amateur Radio Assoc., (WARA). Meets 1st Wed./monthly, 7:30 p.m., Am. Red Cross Bldg., 106 N. Bway, White Plains, NY. Club nets: (10 Meters) 28.420 MHz Tues., 8 p.m. (2 Meters) 145.495(-) rptr., Thurs., 8 p.m. Info: Dan Grabel, N2FLR, (914) 723-8625. 4/98

Westchester Emergency Comm. Assoc., (WECA). Meets 2nd Mon./monthly, 7:30 p.m., Westchester County Ctr., White Plains, NY. Contact WECA INFO LINE (914) 741-6606 for details. Talk-in WB2ZII/R 147.06(+) PL 114.8/2A. 11/98

Yonkers Amateur Radio Club, (YARC). Meets 2nd Sun./monthly, 10 a.m., 1st Pct., Yonkers Police Station, E. Grassy Sprain Rd., Yonkers, NY. Info: P.O. Box 378, Centuck Sta., Yonkers, NY 10710. (914) 963-1021. 146.865(-), 440.150(+). 10/98

NORTH CAROLINA

Stanly County Amateur Radio Club. Stanfield, NC. Meets 4th Thurs./monthly, 7 p.m. Talk-in 146.985(-) for location. Wed. net 9 p.m. 146.985(-). Fri. tech net 9 p.m. 147.390(+). Phone: (704) 888-4815. 5/98

SOUTH CAROLINA

Sumter Amateur Radio Assoc., Inc. (SARA) P.O. Box 193, Sumter, SC 29151-0193. Meets 3rd Mon./monthly, 7 p.m. Central Carolina Tech. College, Rm. 102, 506 N. Guignard Dr. Contact: Dee, NØZTV,(803)499-6315.E-mail: deebrown@sumter.net. Talk-in 147.015. 9/98

OHIO

Ashtabula County ARC. Ken Stenback, W8KS (964-7316). County Justice Ctr., Jefferson, OH. Meets 3rd Tue./monthly, 7:30 p.m., County rptr., 146.715(-). 10/98

Clyde Amateur Radio Society (CARS). Meets 2nd Tue./monthly, 7:30 p.m., Municipal Bldg., Clyde, OH 43410. NF8E rptr. 145.35(-) and 442.625(+) MHz. Net Sun. 9 p.m. Info: E. Remaley, KA8CAS. 3/99

Greater Cincinnati Amateur Radio Assn., (GCARA), W8DZ. ARRL SCC, meets 4th Wed./monthly, 7:45 p.m., Brusman's Hall, 4813 Vine St., St. Bernard. Nets: Mon. 145.27-, Thurs. 1.936 MHz, 9 p.m. Info: http://w3.one.net~rkuns/gcara.html, K8JE (513) 825-2868, W8XS (513) 474-0287. 12/98

Toledo Mobile Radio Association. P.O. Box 273, Toledo, OH 43697; (419) 243-3836. Meets 2nd Wed./monthly, 7:30 p.m., Luke's Barn, Lucas County Rec. Ctr., 2901 Key St., Maumee, OH. 147.270(+) Net every Sun. 8:30 p.m. 2/99

Van Wert Amateur Radio Club, Inc. P.O. Box 602, 1220 Lincoln Hwy., Van Wert, OH 45891. Meets 1st & 3rd Sat./monthly, 8 p.m. Call-in: 146.85(-). 2/99

Western Reserve Radio Assoc. P.O. Box 81252, Cleveland, OH 44181-0252. Meets 2nd Wed./monthly, 7:30 p.m., Jenkins Communications Cntr., Main St., Olmsted Falls, OH. Info: B. Beckman, N8LXY, Pres., 146.73(-), 444.900(+) MHz. 7/98

OREGON

Central Oregon Coast ARC. P.O. Box 254, Florence, OR 97439. Meets 3rd Sat./monthly, & every Wed./weekly, 9 a.m. for brkfst. at Mo's Rest. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 1/99

Central Oregon Radio Amateurs, (CORA). P.O. Box 723, Bend, OR 97709. Meets last Thurs./monthly, 7 p.m., Bend Sr. Ctr., 1036 NE 5th, Bend, OR. 147.06(+) MHz. Info: (541) 389-7194. 7/98

Keno Amateur Radio Club. P.O. Box 653, Keno, OR 97627. Meets 3rd Thurs./monthly, 7 p.m., Keno Fire Stn. Rptr. 147.32(+) K7ENO. For info: Tom Hamilton, WD6EAW, Tel./FAX: (541) 883-2736. wd6eaw@cdsnet.net 11/98

Umpqua Valley Amateur Radio Club, Inc. P.O. Box 925, Roseburg, OR 97470. Meets 3rd Thurs./monthly, 7:30 p.m., Douglas County Courthouse, Rm. 310, Roseburg, OR. Info: W5PII/R 146.90(-) or (541) 673-1310. 6/98

PENNSYLVANIA

Butler County Amateur Radio Assn. P.O. Box 1787, Butler, PA 16003-1787. Meets 1st Tues./monthly, 7:30 p.m., Boy Scout Cntr., 830 Morton Rd., Butler, PA. Call-in W3UDX/R 147.36(+). Net 10:10 p.m. nightly. 11/98

Mercer County Amateur Radio Club, W3LIF. P.O. Box 996, Sharon, PA 16146. Meets 4th Tue./monthly, 7:30 p.m., Shenango Valley Med. Ctr, Farrell, PA. Net, Thurs. 9 p.m. on 145.35(-) W3LIF, Digi. 145.01. 3/99

Mid-Atlantic ARC. Box 352, Villanova, PA 19085. Meets 3rd Thurs./monthly, 8:00 p.m., Radnor Mem. Libraray, Wayne, PA. Call Bob Haase, W3SA, (610) 293-1919. 147.06(+) WB3JOE PBBS 145.09. 4/98

Warminster Amateur Radio Club, K3DN. P.O. Box 113, Warminster, PA 18974. Meets 1st Thurs./monthly, 7:30 p.m., Benjamin Wilson Sr. Cntr., Warminster, PA. Net on 147.09(+), Wed. 8:30 p.m. and 28.450 Sun. 9 p.m. 5/98

VIRGINIA

Southern Peninsula Amateur Radio Klub, W4QR (SPARK). Meets 1st Tue./monthly Salvation Army Community Bldg., Hampton, VA. Repeaters 146.73(-), 449.55(-). VE Exam Info: (757) 898-8031, W4RTZ. 2/99

Virginia Beach ARC. Meets 1st Thurs./monthly, 7:30 p.m., St. Andrews United Methodist Church, Tucson & Princess Anne Rds., Virginia Beach, VA 23462. 2/99

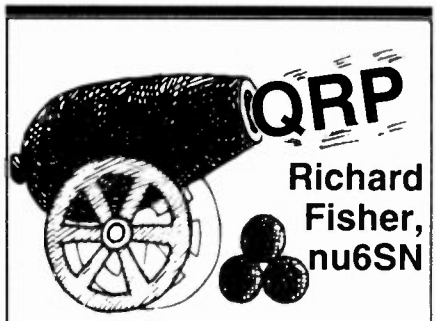
WASHINGTON

The Mike & Key Amateur Radio Club. Meets 3rd Sat./monthly, 10 a.m., Salvation Army Renton HQ., 720 Tobin St., Renton, WA. Talk-in on 146.82(-) rptr. Doors open at 9:30 a.m. 5/98

WEST VIRGINIA

Jackson County Amateur Radio Club. Meets 1st Thurs./monthly, 7:30 p.m., United Nat'l Bank of Ripley. Net Mon. 9 p.m. on 146.67(-) WD8JNU/R. For info: D. Tennant, N8ZYB, Rt. 1, Box 188, Mt. Alto, WV 25264. 7/98

Tri-State Amateur Radio Assn. Meets 3rd Tues./monthly, 7 p.m.,The American Red Cross, 111 Veteran's Memorial Blvd., Huntington, WV. 5/98



Richard Fisher, nu6SN

1940 Wetherly Way, Riverside, CA 92506
e-mail: nu6sn@aol.com

QRP in the loop

Sunrise, and there he was. Not much more than a whisper on the bottom of 40-Meter CW — DU9HKD in QSO with a W6 who was having trouble copying the Philippine station's QSL information. Here at nu6SN, he's solid copy.

That's no big thrill until you consider I'm sitting at my dining room table in front of a direct-conversion receiver kit connected to a shielded loop antenna on a PVC frame about one-foot square. It's hard to know what gear the W6 was using. But most likely he was craning his ears toward a multi-stage superhet dangling at the end of an outdoor antenna system.

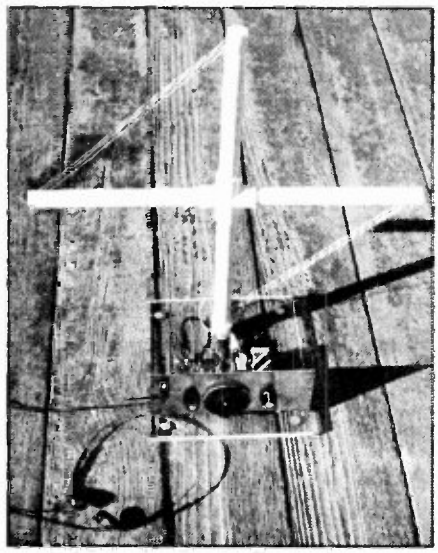
Such accoutrements you'll not find with JADE Products' SLR Shielded-Loop Receiver. But the East Hampstead, NH, company's latest kit is a truly remarkable radio despite its seeming simplicity. It's a meticulously designed receiver working in concert with a very small, but very efficient antenna system. When it comes to DC receiver yin and yang, JADE's SLR kit has it all in balance.

Painstakingly developed by Daniel Wissell, N1BYT, of Acton, MA, this receiver/antenna combination is a great project for the first-time homebrewer and longtime experimenter.

Operationally, it's an especially good radio for operators who are hamstrung by outdoor antenna restrictions, or who wage ongoing war with local man-made noise — QRN. These struggling groups seem to make up a significant number of radio amateurs in general, and QRPers in particular. There's hope with JADE's SLR.

Electronically, Wissell surmised at the drawing board that a direct-conversion receiver designed with both balanced output and balanced input, using a tuned, balanced shielded-loop antenna as the sole provider of front-end selectivity, would push simple D-C receiver performance to a new level. He was right.

"I did quite a bit of (computer) modeling," Wissell said. The circuit was "thoroughly simulated" prior to breadboarding, and with the exception of an audio filter circuit, each stage simulation performed in the real world just as it had in the virtual world.

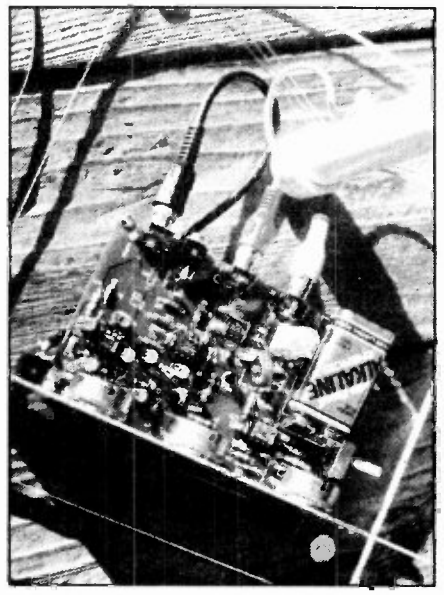


The JADE Products SLR features a foot-square shielded-loop antenna affixed here in the nu6SN version on a mount to the rear of the receiver.

Wissell, a 48-year-old design engineer for Digital Equipment Corp., leans on the classic NE602/SA602 double balanced mixer/oscillator chip for the front end of the SLR, buttressed on the flip side by an AMP-04 instrumentation amplifier serving as an audio pre-amp, and a garden variety LM-386 audio amplifier. An LP2951 low-dropout regulator rounds out the cast of chips, providing a nicely regulated 7 volts from the receiver's 9-volt battery power supply.

The AMP-04 presents a balanced load for the balanced output of the NE602/SA602. It also has a high common-mode rejection characteristic — more than 80 dB, making the SLR kit practically bulletproof when challenged by breakthrough from nearby AM radio stations. A balanced lowpass filter resides between the '602 and AMP-04. The end result is an extremely stable, very sensitive and highly selective radio compared to the common direct conversion designs that have preceded it. There's more than enough audio to drive Walkman-style headphones, and the SLR will easily drive a small speaker for casual listening around the shack.

Front panel controls include RF gain, main tuning and fine tuning, also known as bandspread. Across the back of the PC board are two jacks for the elements in the shielded-loop antenna, and headphone/speaker jacks. At just 10 milliamperes of current drain during normal operation, a 9-volt battery lasts a long, long time. It also makes the SLR moveable on the operating table, around the shack, and beyond.



The PC board features a direct-conversion circuit with both balanced input and balanced output.

During a recent Sunday morning QRP-to-QRP QSO on 40 Meters with Ed Loranger, WE6W, of Santa Rosa, CA, I took a stroll around my back yard carrying the SLR during one of his longer transmissions. Rotating the shielded loop both nulled some pesky QRN from an overhead power line and brought Loranger's

QRP signal to an S-8 peak. It was interesting listening to adjacent signals and ambient noise ebb and flow as the shielded loop changed orientation.

This receiver has since been used at nu6SN in many QSOs with stations from around the western United States. And from this southwestern U.S. listening post, it has not been uncommon to copy DX signals on the low end of 40-meter CW from the eastern U.S., around the Pacific rim, Canada, South America and occasionally Europe. SSB reception's not too shabby either. It's clear that the SLR is tailor made for signal and propagation study.

JADE's kit version of the Wissell design is first rate, and a great project on several levels for the beginning builder. Dennis Blanchard, K1YPP, JADE's design engineer, has raised kit packaging and instruction script writing to a fine art.

The JADE SLR Shielded-Loop Receiver kit, available for 80, 40 or 30 Meters, comes with a top-quality, plated-through, silk screened, dual-sided printed circuit board and 10 plastic bags of carefully parceled parts for ease of construction. It's up to the builder to provide an enclosure or mounting scheme for the receiver and antenna.

The first portion of the 20+ page instruction manual takes the builder step-by-step through PC board component mounting. It then turns attention to the shielded-loop antenna, directing PVC drilling, assembly and stringing the wires. Since I had planned from the start to adopt a breadboard-style mounting scheme for the receiver, it took about two hours to build the antenna and another three hours to stuff the PC board — working slowly, but deliberately to do an aesthetically-pleasing job. After all, if the inner workings of the SLR are going to be out there for all to see, we'd better do our best work, right?

The manual separates the building process into tidy sections, grouping similar components for simultaneous installation to cut down on confusion. There are also multiple large pictorials showing the placement of every component on the PC board. It's hard to imagine how JADE could have made construction any easier.The manual also devotes portions to modifications and troubleshooting.

Drilling templates are provided to prepare the antenna's PVC struts for stringing the loop. The manual then provides a point-to-point guide for feeding the antenna wire in one hole and out another to form the SLR's shielded-loop configuration.In addition, there are templates for drilling a front panel, should the builder choose to have one.

There is one toroidal inductor in the receiver. It calls for a single, untapped winding. For those who have never worked with toroids, it's a great way to be indoctrinated.

Receiver alignment consists of adjusting a board-mounted variable capacitor to bring the circuit into the portion of the band you want to cover, and tweaking a loop-mounted trimmer capacitor for peak signal reception. Easy!

The shielded loop was designed to be broad-banded, so one setting of the antenna trimmer capacitor accommodates reception across the 250 kHz the receiver tunes.

At nu6SN, the SLR was set to cover 7.000 to 7.250 MHz. Reception of CW and SSB signals is equally pleasing to the ear, and it's just mind-boggling how this little radio can grab signals out of the ether from the loop antenna's small capture area.

As direct-conversion receivers go, JADE's SLR is top of the line.

The kit, which includes all board-mounted parts and panel controls, as well as the antenna support and hardware, is $95 plus $6.50 shipping and handling. For more information or to order, write JADE Products, Inc., P.O. Box 368, East Hampstead, NH 03826. Telephone: 800/523-3776. Fax: 603/329-4499. Web page: http://www.jadeprod.com E-mail: jadepro@jadeprod.com

In addition to the Philippine station, some of the other DX copied at nu6SN includes LU1ZC (Argentina), HA3UU (Hungary), KH6AFS (Hawaii), JP6AG and JL1VAO (Japan), I4IKW (Italy), UAØCM (Asiatic Russia). A tasty bit of listening at the dining room table, indeed.

QRP Ugliness

The Arizona ScQRPions QRP Club is sponsoring an "Ugly Project" contest to be held at the Ft. Tuthill Hamfest in Flagstaff, AZ, the weekend of 25 July. According to an announcement by the club, the contest brings recognition where it has been sadly lacking: "Yes, at long last those of you who can't keep the turns quite even on your toroids; those who can't seem to keep their greasy fingerprints off the labeling; those who bring new meaning to the phrase 'dead bug construction,' this is YOUR hour."

The rules are simple: The "Ugly Project" must be something you have built. It must be a rig or station accessory. It must do what it was intended to do. "Judging will be even more simple," club officials add. "The winners will be selected based on the amount of horror, revulsion, and exclamations of 'Ye gods, what IS that thing?!?' elicited from the judging panel." For more information about the club, visit the AZ ScQRPion web site at: http://www.dancris.com/~ki7mn/sqrppage.htm.

Norcal paddles, part III

Northern California QRP Club's Doug Hendricks, KI6DS, has announced that the first two production runs of the enormously popular NorCal K8FF Paddle kits (reviewed in February's ***Worldradio*** QRP column) have sold out. "But the good news is that we anticipated that," Hendricks said, and Doug Hauff, KE6RIE, of San Luis Machine Co., has come up with yet another run. "I was talking with Wayne Smith, K8FF, the designer and he suggested that for this (third) run we move the paddle handles to the inside of the dit and dah shafts," Hendricks said, "resulting in much narrower spacing for the handles."

So, Part III of NorCal K8FF Paddle kit production will have the new "narrow spacing," which Hendricks says is "very similar to the Bencher-Brown Brothers feel."

If you are interested in getting a set of the NorCal K8FF paddles, "you're ordering an unfinished kit of parts," Hendricks said. "All of the parts are there, but you have to finish and fine tune them. They are easy to build, and the job can be done with common hand tools."

Hendricks says NorCal will not be able to sell just the narrow spacing paddle arms to the operators who have paddles from the first two production runs. "Due to the (production) process used, parts for paddles are made in sets," Hendricks said. "It is not feasible to make just paddle arms."

The cost of the NorCal K8FF Paddle kit is $30, plus $5 shipping and handling in the U.S., $10 S&H

for Western Europe and Canada, and $15 S&H for the Pacific Rim.To order, send check or money order (U.S. funds only) to Jim Cates, WA6GER, 3241 Eastwood Rd., Sacramento, CA 95821. Make checks payable to Jim Cates, not NorCal.

Orders from Western Europe and the United Kingdom can be made through NorCal's European agent. The cost is £ 25 UK To order, send checks (English pounds only) to: Steve Farthing, GØXAR, 38 Duxford Close, Melksham, Wiltshire, England, SN12 6XN. Make checks payable to Steve Farthing, not NorCal.

1998 QRP To the Field

The NorCal-sponsored 1998 QRP to the Field contest takes place 25 April from 1600-2400UTC with the theme "Run to the Borders." Stations operating from a state/province/country border get an extra multiplier for each SPC intersecting at their exact location. For example, KD7S operates from the California-Nevada border, getting the X2 Border Operator multiplier and gives a signal report from each state: "579 CA, 579 NV." Stations working KD7S would get SPC credit for each state, as well as QSO points for each separate signal report received.

All participants must be QRP operating HF bands (no WARC) near standard QRP calling frequencies.

•Exchange: RST and State/Province/Country.

•Points: 5 points per QSO. Stations working Border Operators score 5 points per report received, and should log each state/signal report separately.

•Multipliers:— SPC total (each counts once per band). — Border Operator (number of SPCs intersecting at your operating position). — Location (Home = X2; Field = X4, using battery power and temporary antennas).

•Final score: QSO points X SPCs X Location X Border Operator Multiplier

•Awards: Top 10 scorers receive certificates.

Send logs by 01 June 1998 to: Joe Gervais, AB7TT, NorCal Contest Manager, P.O. Box 1822, Goodyear, AZ 85338, or via e-mail to vole@primenet.com Include station and location descriptions. For information, e-mail Gervais, or visit them at http://www.fix.net/norcal.html

"Four days in May" 98 QRP conference — the Amateur Radio QRP event of 1998

The QRP Amateur Radio Club, International (QRP-ARCI) proudly announces the third annual "Four Days In May " QRP Conference commencing Thursday, 14 May 1998 — the first day of four festive days of 1998 Dayton Hamvention activities.

Amateur Radio QRP presentations, workshops and demonstrations will be the focus of the full day Thursday QRP Symposium to be held at QRP ARCI headquarters — the Days Inn Dayton South. Topics already on the slate are Antenna Feeders, PCB Alternatives, G3RJV Six-Pack, Coherent CW, Transistor Modeling, Beyond the NE-602, QRP PIC Designs, and more. Culminating this first day will be an evening QRP ARCI Author Social for folks to meet the QRP presenters.

The "Four Days in May" QRP extravaganza continues with the annual Friday night QRP ARCI Awards Banquet. Featured banquet speaker will be Ade Weiss WØRSP, one of the pioneers of the QRP movement. Following the Awards Banquet, a special evening has been set aside for the FDIM QRP Vendor Social where prizes will be drawn.

FDIM Saturday will be special this year with an evening social for QRPers to meet the many regional North American and International QRP Club members — bring your banners! Saturday culminates with the annual QRP building contest sponsored by the NorCal QRP club.

•QRP Symposium Presenters: Please submit your QRP technical manuscripts to FDIM 98 Technical Paper Chairperson Ken Evans, W4DU, at 848 Valbrook Court, Lilburn, GA 30047, or e-mail: w4du@bellsouth.net

•FDIM QRP Symposium Registration: Registration for the Thursday 14 May FDIM QRP Symposium will be $10 if prepaid by 01 May and $12 after that date. Registration will cover QRP Symposium activities, QRP technical presentations, "Six-Pack" printed circuit board kit, "special" Symposium bag stuffers and an endless QRO coffee pot.

Please send your $10 fee (U.S. check, money order, international money order) to "QRP ARCI" and an SASE by 01 May to: Cam Bailey KT3A, FDIM Symposium Registration at P.O. Box 173, Mt. Wolf, PA 17347, or e-mail: kt3a@juno.com

•QRP-ARCI Awards Banquet: This Friday 15 May event is being hosted by FDIM Banquet Chairperson Scott Rosenfeld, NF3I. Please send your $22 banquet ticket fee (U.S. check, money order, international money order) made out to "QRP ARCI" and an SASE by 01May to: Scott Rosenfeld, NF3I, QRP ARCI Banquet Tickets at 4015 Sparrow House Lane, Burtonsville, MD 20866-1333 or e-mail: Ham@w3eax.umd.edu for information.

•FDIM QRP Vendor Social: All are invited to attend this wonderful Friday 15 May evening social. For registration information please contact Jim Stafford, W4QO, QRP Vendor Evening Chairperson, at 11395 West Road, Rosewell, GA 30075 or via e-mail: w4qo@amsat.org

•QRP ARCI FDIM Headquarters: The Days Inn Dayton South will be the 1998 FDIM QRP headquarters. Please contact Hank Kohl, K8DD (e-mail: k8dd@tir.com), regarding availability of rooms. Hank's address is 1640 Henry St., Port Huron, MI 48060.

John G. Troster, W6ISQ

Who discovered HF "skip" propagation?

BOB BUUS, W2OD

As many of you know, common radio knowledge up until the 1920s was that the longer wavelengths were best for reliable communications over long distances. Up until 1912, there were no frequency allocations and radio amateurs shared the spectrum with the U.S. Navy and commercial interests on an equal basis (actually some amateurs were the best operators and had the best equipment). After many unsuccessful attempts by other interests to shut the amateurs down completely, a compromise was finally reached whereby the amateurs were restricted to those wavelengths less than 200 Meters (all frequencies above 1.5 MHz). Amateurs then sought to span the Atlantic on these shorter wavelengths with unsuccessful tests run in 1920. Finally, in December 1921, 1BCG in Connecticut was copied in England (as were several other American amateurs) and the Transatlantic tests were deemed successful. From this knowledge of history, many amateurs conclude that "skip" was discovered by amateurs on their "worthless" frequencies. Although this would be a nice ending to a fascinating story, it simply is not true, although it might have been as you will see from the following story. Actually, all of the transatlantic tests were conducted at the lowest frequency (200 Meters) at which amateurs were legal since common knowledge said that the lowest frequencies were best. Furthermore, all of the successful transatlantic communication occurred at night.

So then, who did discover the long distance "skip" that we take for granted on 40, 20, 15, and sometimes 10 Meters, i.e. the skip off the F2 layer of the ionosphere? Would you believe it to be none other than Guglielmo Marconi, the father of radio?

The following story is excerpted from a speech entitled "Wrong Roads and Missed Chances — Some Ancient Radio History" by Edwin H. Armstrong in 1951 when he was given the Washington Award by the Western Society of Engineers. By the way, this is the same Major Armstrong who invented the regenerative detector, the superheterodyne receiver, the super-regenerative detector, and frequency modulation. So here we have the story of a significant accomplishment by one great radio pioneer (Marconi), as told by another great radio pioneer (Armstrong). I hope you enjoy it.

"The ending of World War I released the experimental energies of a very able engineer of the British Marconi Company, C. S. Franklin. Following up some work of Marconi for the Italian Army with short wave directive beams, Franklin established a telephone circuit between London (Hendon) and Birmingham in 1920, on the extremely short wave of 15 Meters. That wave length was chosen — not for any expected advantage in transmission — but because it was easy to set up a reflecting antenna for waves of that order, and because loss of range, i.e., the "daylight effect" does not occur over so short a transmission path (100 miles). The Hendon and Birmingham transmitters had effective radiated power of about 4 kilowatts, and the system worked well.

"In a paper presented before the AIEE and the IRE in New York City in June 1922, Marconi told about some of his recent work in radio, including the work for the Italian Army with directive beams and the 15 Meter Hendon-to-Birmingham telephone circuit. He suggested radio has perhaps got into a rut by confining practically all its research to the long waves, and that more attention should be given to the shorter waves; and he summed up his remarks on the subject with these prophetic words: 'I have brought these results and ideas to your notice as I feel — and perhaps you will agree with me — that the study of short electric waves, although sadly neglected practically all through the history of wireless, is still likely to develop in many unexpected directions, and open up new fields of profitable research.'

"Upon his return to England, Marconi began a series of classic experiments from the historic Poldhu site, which took him on a cruise in his yacht *Elettra* to the Cape Verde Islands in the South Atlantic during the spring of 1923. He had set up a transmitter at Poldhu on the longest 'short' wave for which it was then practicable to build a reflecting beam antenna — 97 Meters. He listened to the Poldhu signals as he cruised south, and found them to be extraordinarily good. In the Cape Verde Islands, over 2,500 miles from the transmitter they were far better than any signals that had ever been received over a comparable distance from a high power long wave station. Marconi reported that even when the power at Poldhu had been reduced to 1 kilowatt, its signals at night were still better than those received from the highest powered transoceanic stations in the British Isles. While the usual disappearance of the signals during daylight hours occurred, Marconi observed that the signals lasted for a time after sunrise at Poldhu and that they became audible again before darkness had set in at the Cape Verde Islands.

"That observation led him to suspect that some new phenomenon was present in the short wave band; and after his return to England he laid out a program of further experimentation for the following year, when he would compare the signals at 90 Meters with those on a number of shorter wave lengths, down to the region of 30 Meters. In 1924, he cruised through the Mediterranean to the coast of Syria; and in Beyrouth harbor in September of that year he made the astounding observation that the signals on the 32 Meter wave from Poldhu, some 2,400 miles away, held in throughout the day — they were in fact as good as the night-time signals, whereas a longer wave of 92 Meters, on the same power, behaved much the same as at the Cape Verde Islands. What Marconi was observing was transmission by reflection from that ionized layer of the upper atmosphere which later became known as the F2 layer, after years of observations had laid bare the mechanism by which the effect was produced.

"Returning to England within a month's time, Marconi sent notification of scheduled transmissions on 32 Meters to Argentina, Australia, Brazil, Canada and the United States; and at the appointed times the daylight signals were received in all those countries. From the end of the earth — far-off Australia — came a report of successful reception for 23 1/2 hours out of the 24.

"These astonishing results became still more astonishing when it is remembered that Marconi was using only a few percent of the power of the transoceanic long-wave stations, and was unable to take advantage of his directive beam antenna because of the diversity of the paths of transmission to the various receiving points.

"As sometimes happens with radically new discoveries, the significance of Marconi's results was not generally appreciated, at first, outside his own organization. But while others hesitated, Marconi, supported by the brilliant engineering of Franklin, moved rapidly, and by the end of 1927 short wave beam transmitters were operating between England and all the principal parts of the Empire — and at speeds (100 words per minute) that no long wave transmitter or cable had ever approached.

"Today, all but a few percent of the world's long distance radio communication is carried out on wavelengths less than one quarter the length of the waves originally allotted the amateurs in the 200 Meters that no one else wanted. Perhaps the best measure of the advance from the era of the 'grounded' wave is that it is now routine for amateurs the world over, with a few hundred dollars worth of equipment, to communicate with each other, and the 'working' of several continents in a single day is no longer the subject of comment.

"We can return now to one of the great missed chances — the chance that every American amateur and radio experimenter had had to tune in the Hendon-Birmingham beam telephone as early as 1922 and discover the daylight wave before Marconi. The Great Circle course of the Hendon beam lay across Eastern Canada and the United States. The 15 Meter wave, as was later found, was a better daylight wave than those in the 30 Meter range, though it was not effective at night. Full information about the Hendon station was available from Franklin's and Marconi's publications, and all necessary information about the most effective means of receiving such waves — the superheterodyne — had been published.

"Had any radio experimenter in the United States thought to set up a superheterodyne for 15 Meters and listen for the Hendon signals during the daytime, he would almost inevitably have heard them at some time during the day and he, instead of Marconi, would have discovered the daylight wave. But no one had the imagination to set up a receiver and listen. We all 'knew' too much about propagation; only a madman in those days would have proposed to receive 15 Meter signals across the North Atlantic, especially during daylight hours.

"There is, however, a consolation for the American experimenters who missed the chance. The master experimenter himself, Marconi, also missed it. Though for more than 20 years he had made it a practice on voyages to the United States to take along receivers to listen to his British stations, when he crossed the Atlantic in the *Elettra* in 1922 it seems not to have occurred to him to take along a 15-Meter receiver and listen to Hendon. Had he done so, and turned the Hendon beam to follow the yacht, he would have discovered the daylight wave two years before he actually did.

"It is seldom given to a man to make two great discoveries, as Marconi did. He created the practical art of radio communication; and a generation later, when the limits of its ability to conquer distance seemed to have been reached, he came along with the discovery that made world-wide radio communication a reality."

-10-10- INTERNATIONAL News

Chuck Imsande, W6YLJ
10-10 19636

The 10-10 Daily Net

Bill Marple, AA6ZW, #62075, 10-10 Net Manager, reports the 10-10 daily net had a very active last quarter of 1997. With a total of 1,394 check-ins on the 28.380 MHz frequency net, of which 1,228 were 10-10 members. The net on 28.800 was also very busy with a total of 1,136 check-ins, of which 1,092 were 10-10 members. 10-10 runs two nets daily, except Sunday, at 1800UTC. One net operates at 28.380 and the other net operates at 28.800. Both nets operate at the same time, 1800UTC. The net control stations are scattered around the country, so checking in may be easy, depending on propagation. Listen on either of the 10-10 net frequencies at 1800UTC and if you hear the net in operation, check in and visit with other 10-10 members. If you are not a 10-10 member, check in and collect the 10 numbers required for membership.

And speaking of Net Control Operators, we have a new net control for the Thursday net on 28.800. He is Carl White, NU6V, #67317. Carl's QTH is Anaheim, CA. Carl is relatively new to 10-10, being a member for about two years. It is good to see new members taking an interest in volunteering to help 10-10. Look for Carl on Thursdays on 28.800 at 1800UTC.

The Wednesday Net Control Operator, Louise Chapman, N6ELK, #36654, will be using the 10-10 Club Station Call, W6OI, #109, on the Wednesday net on 28.800. If you would like to add the Club Station to your 10-10 contact list, look for Louise Wednesdays at 1800UTC on 28.800. If you work W6OI, #109, and would like a QSL card, send an SASE to N6ELK, 3210 Clark Ave., Long Beach, CA 90808.

Hill Country Picnic

Spring is just around the corner in South Texas and this means the 10th annual 10-10 Hill Country Picnic is approaching fast. The Bluebonnet, Outlaw and South Texas Lighthorse Brigade Chapters sponsor the picnic. This year the date will be 31 May 98 at the home of Jack, K5CC. Barbecue will be served as well as lots of other good food and desserts. Several club stations will be in operation and everyone will be able to operate 10 Meters. Everyone is welcome, along with family and friends. Contact Jack Moore, K5CC, #50708, 371 Ridge Creek Ln, Bulverde, TX 78163-2871 for more information.

New Brochures

Two new updated 10-10 brochures are now available. The 14 page 10-10 Information Brochure, dated January 1998, has been updated to include all changes through December 1997, including the latest Net Guide. Also included are the latest 10-10 Bylaws, dated 11 July 1997. This is a handy brochure to have available when someone asks about 10-10 on the air. It's a really handy reference guide.

The other updated brochure is the 10-10 QSO Party Information Brochure. This 8-page brochure includes the complete rules for all of the 10-10 QSO Parties and what is required for submitting your log. A generic 10-10 QSO Party Cover Sheet and a dupe sheet for those who manually dupe their contacts is also included. Information in the form of a sample log is included for those who need to know what is required and how to prepare your log so that your entry in the QSO Party will result in your log being accepted by the scoring chapter.

Both of these updated brochures are included in the Information Package described below. If you would like these updated brochures, send your request to the 10-10 Information Manager in accordance with the instructions below.

10-10's WWW Site

Current information about 10-10 is always available on the 10-10 Web Site. This internet e-mail subscription list and archive system is available to all members and non-members interested in 10-meter operation at no charge. The list provides a place for anyone interested in 10-meter operation to post messages, check on propagation and band openings, equipment and antennas. News relative to 10-10 Chapter Awards and new activities are also posted regularly.

To subscribe to "TENTEN-L" send e-mail message to: listserv@lehigh.edu; make no "subject" entry. In the text or body of the message, type the following text: SUBSCRIBE TENTEN-L JOHN DOE K5FJZ

Place your name and call in lieu of "JOHN DOE K5FJZ." Note that neither address nor the text is case sensitive. You will receive a welcome message outlining the features of both the e-mail and the archives accessible through the list.

The 10-10 web site is located at the following URL address: http://www.lehigh.edu/lists/tenten-l Note that the last letter in the address is a lower case "L" and not the number "one" (1). 10-10 maintains the web site for the use of both current and prospective members. In addition to complete information about 10-10, volunteers, and 10-10 chapters, there are links to other Amateur Radio sites. There is more information about the web site in the Information Brochure noted above.

New DX 10-10 Members

Our DX Manager, Carol Huu-

gentober, K8DHK, #29588, advises that 10-10 continues to grow in the DX world. Here are 13 new DX members who came aboard in January:

DL2KHU	#69200	YCØSBV	#69207
DH9UW	#69201	DH1CH	#69208
DL2EEC	#69202	DH2JF	#69209
LU5FOO	#69203	DH1UB	#69210
DF4ES	#69204	DJØPR	#69211
DL3NEO	#69205	DH1PAL	#69212
DK7JC	#69206		

We want to welcome our new DX members into 10-10. If band conditions permit, look for these new DX members and welcome them into the net.

10-10 Information?

If you would like information about 10-10, and how you can become a member and receive your very own unique 10-10 number, send $2.00 and an address label for the return of your information package to: Mike Elliott, KF7ZQ, #54625, 10-10 Information Manager, 9832 Gurdon Court, Boise, ID 83704-4080. No SASE please as the information package requires a 9x12 envelope. You will receive a copy of the 14-page Prospective New Member Brochure, which contains everything you want to know about the 10-10 organization, a listing of all 10-10 Chapters, their day, time, and frequency of net operation and an application form. Also enclosed will be a copy of the 8-page QSO Party Information Brochure and the latest issue of the 10-10 International News, the 32-page 10-10 quarterly magazine.

If you have lost, or forgotten, your 10-10 number, send the same as above to Mike and you will get the information package along with your original 10-10 number.

If your membership in 10-10 has expired and you would like to renew, send your dues ($10.00/year) to: 10-10 International Net, Inc., 643 N. 98th Street #142, Omaha, NE 68114-2332. You will become an "ACTIVE" member again and receive all of the benefits of 10-10 including the quarterly *10-10 International News*. Remember, 10-10 numbers are issued for life and your originally-issued number is always yours.

Inside Amateur Radio

The following story has been excerpted from Inside Amateur Radio, *by the late Lenore Jensen, W6NAZ. The book can be purchased from* ***Worldradio*** *Books, P.O. Box 189490, Sacramento, CA 95818. Price is $9.00 plus $2.00 shipping and handling. CA residents please add 70¢ sales tax.*

Sierra rescue

LENORE JENSEN, W6NAZ

Even though they planned to hike to the 12,000-foot peak of a mountain out of Bishop, California, two amateurs insisted on taking along their tiny hand-held transceivers. After all, what better spot could a Ham find for transmitting! John Strain, KØHGW, and Bob Brydon, K6YC, planned not to use their rigs till they reached the top, to conserve battery power.

It was a crisp fall day when they started, perfect for a hike up the beautiful John Muir Trail which they would follow for several days. Camping out under stars in non-smoggy air is a joy known only to backpackers.

When they reached the 11,500-foot junction with the Bishop Pass Trail, they went on the air to check with friend Paula Dunlap, WB6IWV, down in Bishop, to assure her all was well. It was a great vacation, and radio propagation was wonderful.

When time required them to start down, still at least a two days hike from trail's end, they met a tearful young woman.

She explained that her father had collapsed, apparently from altitude sickness and exhaustion. He was unable to continue. Would they take word down and try to send help?

It took about two seconds for the fellows to realize this was one for Amateur Radio. Paula happened to be monitoring and agreed to take immediate action. She phoned the local Sheriff substation, then came back with questions. Bob let the young lady talk directly to Paula while the two men consulted their maps.

They determined they were not far from a helipad near a closed ranger station.

Paula reported that Bishop was in touch by phone with Fresno, in whose jurisdiction they happened to be. With relief, they learned that a helicopter from 'Airlift for Life' would be on its way.

Within an hour they could hear a faraway motor. Straining to see, their hearts sank as the helicopter flew high above and disappeared in the distance, the pilot apparently unable to see the site.

With their transceivers, Bob and John immediately advised Paula of the disappointment; she again made phone calls. Eventually another craft was dispatched from near Bishop.

This time the pilot was able to spot the pad, and settle down neatly for a med-evacuation.

As the radio operators watched them leave, they gave rewarding pats to their rigs.

By the time the two reached the end of the trail, there was still sufficient battery power left to contact Paula's husband, Larry, WB6FZV, to request a lift back to Bishop by car. After walking sixty miles, it felt good to ride and to learn that the victim was feeling much better and sent his grateful thanks.

propagation

Carl Luetzelschwab, K9LA
1227 Pion Rd. • Ft. Wayne, IN 46845
e-mail: k9la@gte.net

In last month's column, three problem areas for high latitude propagation were briefly discussed: the auroral zone, the mid-latitude trough, and the polar cap. Let's take a more detailed look at the polar cap and a polar cap absorption event (PCA).

Where and what is the polar cap? It's the oval-shaped area of the Earth between about 70 and 90 degrees of geomagnetic latitude — in other words, it's an oval centered on the geomagnetic pole (north and south) with a diameter of roughly 2000km. It is essentially the inside of the auroral oval.

What is a PCA? It's a sudden increase in D region absorption over the polar cap, with a disastrous impact on HF paths going across the polar cap (West Coast to northern Europe or East Coast to Japan, for example).

Where do PCAs come from? They come from very energetic solar flares that eject a high velocity stream of protons. When these high energy protons encounter the Earth's magnetic field, they spiral down around the vertical lines of force near the poles. They penetrate right down into the D region of the ionosphere, causing a dramatic increase in electron density. This increased ionization at D region altitudes results in increased absorption over the polar caps.

How is the absorption of a PCA measured? It's done with a Relative Ionospheric Opacity METER (RIOMETER). A riometer is essentially an antenna, a receiver, and a recording device. What it receives is cosmic noise at around 30MHz. This frequency is a compromise between using a lower frequency that gives more output but may not get through the ionosphere all the time versus a higher frequency that gets through the ionosphere all of the time but doesn't have as much output. This frequency must also be chosen with consideration for local RF sources — some riometers use a swept signal to alleviate the problem.

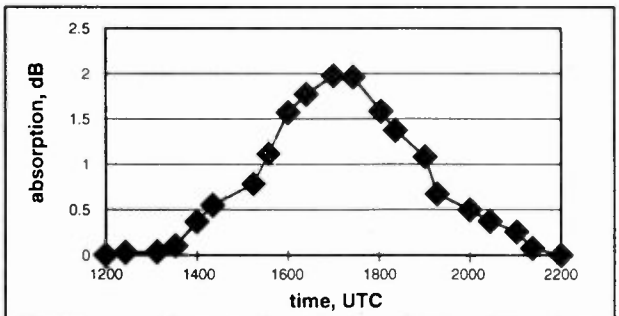


Figure 1: Absorption from Thule riometer for 06 November 1997

What does the antenna pattern of a riometer look like? The pattern is made to concentrate most of its energy toward the sky (no low angle DXing required here). This is usually accomplished by using a Yagi antenna pointed straight up. It is usually oriented East-West so the footprint on the bottom of the ionosphere is an ellipse, longer in the East-West direction than the North-South direction.

On a quiet day, the background cosmic noise is measured by the riometer. This is the reference condition. When the high energy protons reach the D region, the increased ionization causes additional absorption and reduces the signal strength of the quiet day condition. The amount by which it is reduced is the amount of additional absorption due to the PCA.

On 06 November of last year an X9.4-flare occurred (the X9.4 nomenclature means it was an x-ray flare of class X, with a peak flux density of 9.4 times 10 to the minus 4 power watts/meter squared). This was a pretty big flare, and was the first time since 1992 that solar particles went all the way down to ground levels. There were reports that all short-wave frequencies between 3MHz and 25MHz were blocked for about an hour by X-rays hitting the sunlit side of the Earth.

Figure 1 shows the absorption data from a riometer at Thule, Greenland, during this 06 Novem-

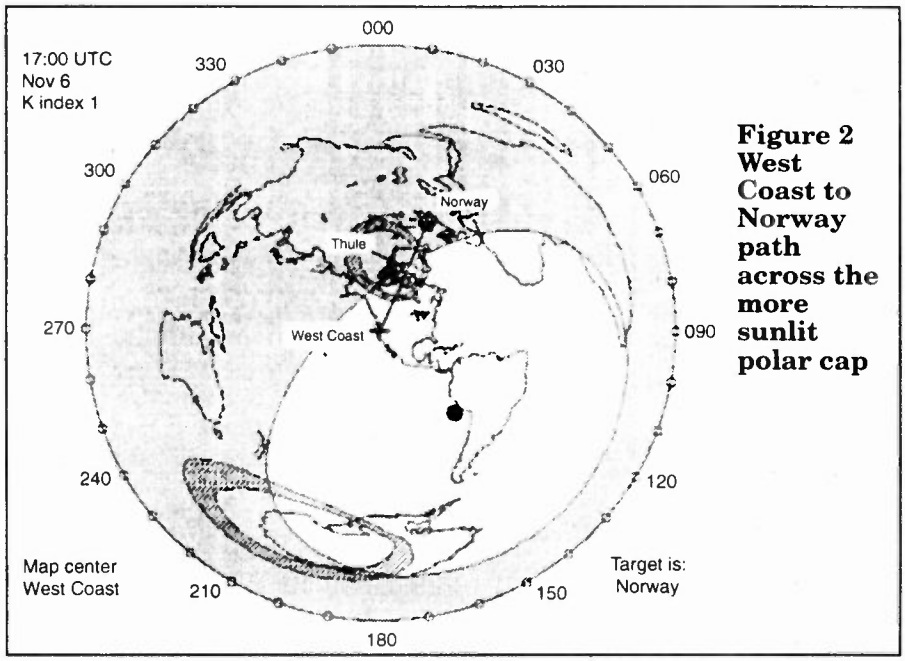


Figure 2 West Coast to Norway path across the more sunlit polar cap

ber flare. Note the absorption peaked at about 2.0dB at about 1700 UTC. This time of peak corresponds to when the sun was highest in the sky at Thule (which was just below the horizon because it's winter).

This value of 2dB doesn't sound like much. But it's only one transit of the ionosphere, the absorption may be more depending on the sunlight conditions at other places in the polar cap, it's at vertical incidence, and it's at 30MHz. Each of these can increase the 2dB absorption when applied to a real path. Let's do some estimating to see what I mean.

First, since this value is for only one transit of the D region, it needs to be doubled to get the "per hop" value. We're now at 4dB. Still not much.

Second, Thule was essentially at sunset at 1700 UTC on 06 November. More southern parts of the polar cap were more in sunlight, and therefore would have more absorption. For example, the path from the West Coast to Norway at 1700 UTC or the path from the East Coast to Japan at 1700 UTC goes through the more sunlit portion of the polar cap. See Figure 2 for the West Coast to Norway path. For this West Coast to Norway path, the absorption is roughly doubled due to more sunlight. Now we're at 8dB.

Third, this is for vertical incidence (remember the riometer is looking straight up). At a more oblique incidence, which is what is happening with our signals across the polar cap, the signal spends more time in the D region, and thus will have more absorption. For an elevation angle of around 10 degrees, we need to multiply the 8dB by about a factor of 2.5. That's now 20dB for a low angle hop at 30MHz going up through the D region and back down through the D region across the polar cap.

Fourth, and finally, we need to translate this to our operating frequency. Since we're not far from solar minimum (but going the right way), it is unlikely that 10M or even 15M would propagate across the polar cap. This leaves us with 20M and lower frequencies. Remembering that absorption increases by a factor of 4 when the frequency is halved makes our 20dB into 80dB for one hop in the polar cap on 20M. Wow! Now we're talking some serious absorption.

If there is any good news to all this, it's that PCAs usually don't last more than a day or two. And with only about 60 PCAs per solar cycle, at least they're somewhat "few and far between."

Kids' Day event

If you missed the Boring Amateur Radio Club-sponsored Kids' Day Operating Event 03 January, you'll get another chance to take part 20 June.

Kids' Day is a special event intended to encourage activity by younger people using Amateur Radio. The goal is to give unlicensed young people on-the-air experience, so they might develop an interest in pursuing a license. It's also intended to give Hams a chance to share their station with their children.

Participants are eligible to receive a colorful certificate. For more information please send an SASE to Boring Amateur Radio Club, P.O. Box 1357, Boring, OR 97009; or www.jzap.com/k7rat. — *Boring ARC; Newsline*

Cushcraft to remain in Amateur Radio

Cushcraft says reports of its demise in the Amateur Radio market have been greatly exaggerated. Cushcraft Production Manager Art Hambleton, K1ART, says the New Hampshire antenna manufacturer is still very much a part of the Amateur Radio antenna industry. Rumors that Cushcraft was exiting the Amateur Radio market apparently mushroomed when word spread of some layoffs at Cushcraft.

Hambleton confirmed that a couple of people had been let go and Cushcraft had cut back on its advertising in Amateur Radio publications, attributing the moves to budgetary cutbacks. But he said "1997 was not a bad year" for the company, and Cushcraft has hired an amateur for a key position.

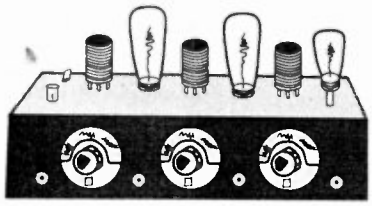
Adam Alevy, N1FXT, of Amherst, NH, Cushcraft's new vice president of engineering, was previously with Atlantic Microwave of Bolton, MA, where he designed VHF- millimeter wave antennas for communications and tracking applications.

As director of engineering, Alevy will manage the engineering group and design antennas in both commercial and Amateur Radio markets. — *ARRL Letter*

File your FCC comments by e-mail

You can now file comments to the FCC by electronic mail. The Commission has instituted a form on its website where you need only fill in your views, and affix an electronic signature. After that you can save a copy as an ascii text file before e-mailing it back. The form and full instructions are available at www.fcc.gov/e-mail/email.html — *Newsline*

OLD-TIME RADIO



Self-taught YL

HELEN DOUGLASS, W5LGY

My introduction and desire to become an Amateur Radio operator was not the result of having read about it or having been in a radio station of any kind.

At the tender age of seven I caught a case of code fever while hearing code at the Western Union station. At home my mother explained what it was all about, that trains and ships could call out for help for help by sending SOS by sounding their whistles.

Two years later, Mother and I were in Galveston, Texas visiting aboard the U.S.S. *Kilpatrick* and were shown the radio room. I surprised the radioman by asking if he ever had sent an SOS when at sea. He tuned his radio receiver to hear a ship's message while I had earphones on my head. Immediately I recognized the difference in the sounds of the two tones that I heard. He explained his message was coming by air via an antenna and a receiver. Then he let me try to send code with his oscillator.

A couple from Iowa, who were interested in shortwave, became our neighbors across the street. He soon became acquainted with all of us "small fry" in the neighborhood and persuaded us to help him raise a 20-foot-tall (A-frame) antenna. It was our job to hold the guy wires as he raised the pole upright. When all the guy wires were tied down he put the far end of the antenna wire onto his "box" inside the house. There he showed us how he could, by turning a few knobs, let us hear voices far away (WFAA). After listening with them for a while, my sister and I decided we would like to have one of those "boxes". He agreed to teach us how to make one. Father decided it was too much for our young minds, and too expensive.

Four years later we moved to the country. One day Father announced he had acquired, for the store, the dealership for the FADA Neutrodine, battery-operated radio receiver. Quickly mother asked WHO was to install it, as he knew NOTHING about it! He said the salesman had suggested, "...it would be easy for Helen to do that." There I was, thrown into the sea of radio ignorance to find my way ashore. I would be installing antennas, grounds, and batteries just as I had done for our neighbor.

We learned the life of a dry cell battery was short, and that programs came in better after sundown. In 1925 we bought our AC-powered Stewart Warner cabinet receiver with a shortwave converter that I never did learn to use, as no instruction book came with receiver.

In the fall of 1939 three recently-licensed university-attending Hams came to the store to have my father build a steel chassis for them. They were changing their "breadboard" chassis into metal. Three days later they were back asking to have holes punched for the mounting of sockets, switches, etc. While holes were being punched one asked why, with all of this good, equipment I was not a Ham. I asked how to get a license. The answer I received was: "All you have to do is to buy the *ARRL Handbook*, an *ARRL License Manual*, and get a free copy of Allied Radio's parts catalogue. Read the introductory chapters in the *ARRL Handbook*, learn, and memorize the questions and answers, and learn to send and receive 15-wpm Morse Code. Then, when you think you are ready, go to Dallas on a Tuesday at 9:00 a.m. and take the test."

That's all the help I got! There was no mention of there ever being a need to have a key to practice with or a shortwave receiver that would help you learn code. I didn't know one existed. Father vetoed my learning radio, but Mother encouraged me. Bless her.

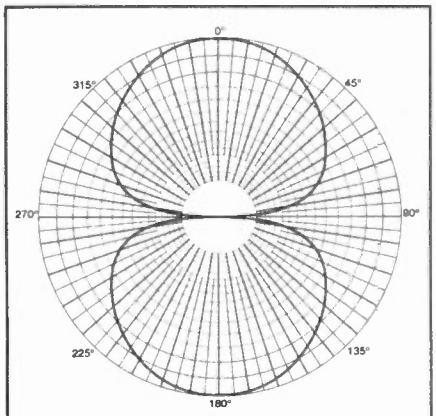
Trying to learn code alone was a big nightmare, so I bought an S9R Hallicrafter receiver I saw advertised in a Q and A. manual. I accidentally stumbled across Miss Lorena Ensor, W9UA, and her brother, Marshall Ensor, W9BSP, on the air sending 5 wpm code (nightly) for beginners and faster speeds for the more advanced.

All went well until 7 December 1941 put all amateurs off the air for the duration of WWII. This convinced me that an Instructograph Code Machine was the ideal code teacher I needed, since the machine could be made to send at any speed (5 to 30 wpm by adjustment). To this I added an AC code oscillator and key so that I could send along with the tape. As I was learning code with the machine and receiver I found regular BBC newscasts and a station in Johannesburg, South Africa. I heard that World War II was over on that South African station.

On a Tuesday at 9:00 a.m. I went to take the code test. The very nice gentleman said I copied 12 of the 15 words correctly. The next two attempts at code tests were taken under direction of the chief engineer who told me that radio was not for females. He always set the code machine so that it was too fast for me to copy. Each time I failed I had to wait 90 days before being eligible to try again. To take the tests meant a 150-mile drive to Dallas on rationed gasoline, plus having to be out of the store half a day. A lady Ham who had suffered the same treatment told me the chief engineer would not be in the office one certain Tuesday. Believe me, *I* was there and passed easily. The test papers were sent to Washington. Then I had to endure the long wait for the license to arrive. Finally on 02 February 1945 my Amateur Radio Operator license arrived, making that the happiest day of my life. There was no code, only more theory, for the advanced class test that gave me my Class A license.

Soon I began assembling the Stancor transmitter kit I had bought three days before 07 Dec. It was a maddening experience, with no instructions and no one to tell me what those dozens of parts were, or how to put them together. For help I turned to the Allied catalogue, and Appendix I in the handbook, where beautiful photographs helped me recognize the different parts. Had I had instructions like the Heath Co. did for their kits, life would have been easier.

When the Ham bands finally opened I anxiously tried to get on the air, but THAT is another story. There was some much-needed help available then.



AERIALS

Kurt N. Sterba

It just gets curiouser and curiouser and curiouser out there. A sharp-eyed "Kurt Pal" sent a page from an "SEA" catalog he had received. In it is material from the (oh, let's call them) The Happy Antenna Co.

Offered is a "2-meter, 5/8-wave, 7db gain, flexible base-loaded antenna. 12" long."

Well, for the moment let's ignore the fact that the scientific term is really dB not "db". Let's approach that 7dB gain. Note, sports fans, that somehow conveniently (and no longer surprising) missing is that all important 2.1dB difference of stating either dBd or dBi (dipole or isotropic). That is a rather interesting distinction.

Now, first, does a 5/8 wave antenna have 7dB gain? And gain compared to what? A dipole? A quarter-wave? The isotropic? A worst-case rubber duck? The antenna left completely off the transmitter? The radio at the bottom of the swimming pool?

When the eager customer pulls 18 hard-earned dollars out of his jeans, what kind of 7dB gain does he think he is buying? Could it be.....over a dipole? Let's see, 5/8 wave is 1/8 wave longer than a dipole. Nope, that tiny lengthening is not going to more than quadruple your effective radiated power.

Could it be gain over a quarter-wave antenna? Out comes the old slipstick. A quarter-wave is 2/8 and a 5/8 WL antenna is 5/8. We've just slightly more than doubled the length. Can you get 7dB gain by doubling plus one-eighth? Not quite. Not hardly. Not even close.

So, inquiring minds want to know, just what is this 7dB gain over? Any worthwhile answer will receive adequate space in this column for rebuttal. Even an unworthy response may be printed for its humor value.

Let's now attend to that dimension of "12" long." Hmmm. A quarter-wave at 146 MHz is about 18 inches. So how can a 5/8 wave antenna be shorter than a 1/4 wave antenna? If we compare that antenna with another (appearing in the same advertisement) it appears that the 12" may be the collapsed dimension. There is another 5/8 wave antenna which notes that the length is 54". But from which you can get "9db gain" ???

Remarkable indeed. Those who read more than the back of the cereal box at breakfast know that it takes a 5-element Yagi to get into the 9dB ballpark. Yes, some spoilsports will question how a small bit of aluminum will be the equivalent of a four-element Quad.

As we look at some figures, others may question how 54 inches is 5/8 WL. When we exercise the following simple work: 234/146 = 1.6027/ 2 = 0.80 137x5 = 4.0068 ft., using that formula for the quarter-wave antenna, dividing that in half for a one-eighth value and multiplying that by five, we get 4 feet, which is 48 inches, not 54 inches.

Let's double check: 468/146 = 3.20/ 4 = 0.80137x5 = 4.0068 again.

To another band: a 440 MHz antenna is stated to be 18" extended. The gain is advertised as 6-9db. A quarter-wave at 440 is just about six inches so this 5/8 wave antenna is around 3/4-WL long???

Let's not be so cruel to hold their feet to the fire to have to explain where this 9dB gain comes from. We'll settle for the six.

No, on second thought, they were the ones who said NINE, so NINE it is. This page awaits the answer. And, we'll probably be waiting a long time.....a long, long time.

One of my really "old-timer" (a W3 two-letter call) correspondents wrote in. (Anyone older than I am is truly an old-timer.) He told a story that occurred way back in the days when he was employed. Seems "this new hot-shot young engineer told me that it was possible to obtain an SWR of better that 1:1."

If that story were of current vintage I would suspect that the young engineer had spent too much time at Yanni concerts.

However, relayed to me on very good authority was the following quite recent event. What you are about to hear actually transpired in an institution of higher learning. And I don't mean beauty or barber college — in a real and well-known UNIVERSITY. EE students were discussing radial systems needed for obtaining maximum efficiency with the AM broadcast 1/4-wave vertical. The instructor suggested they put 20 feet of well casing into the ground. (I think we are having a brain-cell meltdown in this country.)

Again for some, and first time for others: Here is what really happens. On a dipole, at a single moment, the ends (where the voltages are the highest) are at opposite polarity. Put another way, one end is positive and the other end is negative. Since this is AC (alternating current) that situation will quickly reverse at a rate determined by the frequency set by the transmitter.

Created by the expanding and contracting "field," the radio wave goes out into space. That force then hits the receiving antenna and causes the electrons (in the copper or aluminum receiving antenna) to move about, which causes an induced voltage to be impressed across the antenna terminals of the far-off receiver. That voltage is measured in the tenths of millionths.

The dipole does a marvelous job as it is about 98% efficient. But wait — we are now going to bury half of it in the ground (well casing). Do we really expect that field to travel unimpeded by all that dirt surrounding one of the poles of the dipole? If so, how come those buried antennas (just by a few feet) are so horribly inefficient?

An envelope was forwarded to me. The return address simply stated "Anon." Enclosed was a magazine article sent in by "Anon," and a note saying, "I got the cap." (Referring, of course to the white cap which is now adorning the heads of many of the famous.) That article will be the subject of a column here in due course. Letter writer noted, "We in military R&D keep looking but haven't found the magic antenna."

That sentence says it all. Poignant indeed. Serious, really serious, engineers and scientists are devoted to antennas but they cannot leap over the boundaries of good science and create what "tinkerers" so readily proclaim.

I've heard rumors that someone is going to blaze across the sky with some small antenna with the claim to fame being that it worked Europe while sitting on a garbage can. (From an East Coast state.)

I suspect that the garbage can developed sympathetic resonance and did most of the radiating.

All of this, "I worked Tombouctou" is not scientific proof. It should be called, and there is a term for it, "anecdotal."

Anecdotes are what is found in the supermarket tabloids. A very sick woman swallowed four 25-cent pieces and her symptoms disappeared. No one doubts that her symptoms disappeared. However, medical science is not going to immediately start prescribing that others with the same affliction swallow four quarters.

I don't have a doubt in the world that Europe was truly worked with this new transducer. Longtime readers will remember when I worked (to prove a point) DX with small umbrellas, ladders, and even an automobile as the radiator.

How one judges things depends on the prism through which one views. Here are two incoming letters which are, as they say, 180 degrees out of phase.

Addressed to this magazine's headquarters was this: "Please talk to Kurt. He is so caustic. He is really getting to be a turn-off, way too negative and an 'I told you so.'"

All I can say to that is that I'm caustic because there is so much to be caustic about! Am I negative or is it that some people cannot handle the truth? Sometimes the truth can be hard to take. "I told you so?" I sincerely wish others were "telling you so." It is sad to see otherwise-responsible journals shirking their responsibility regarding the puffery (nice euphemism) in the antenna specs of manufacturers.

"I told you so." I was recently sent about 50 pages of printouts from one of those computer argument channels. It was an excruciatingly painful experience. How can some people (apparently with a bit of education, correction — call that schooling) be just so far off-base? They are running counter to all the professional engineering books as well as that fine book aimed at the amateur level, *Reflections* by Walt Maxwell, W2DU.

However, from whatever barbs are sent my way, I take my solace from this letter from a 1 by 2 K4, who even ordered TWO Kurt caps: "Have been a devotee of antennas and antenna engineering since I have been a Ham (1st license, May 1935).

"Keep on telling the true story and let the devil take the 'liars' and 'idiots' in the antenna business."

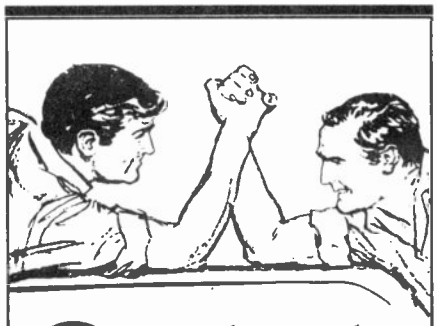
"I enjoy your and Lil Paddle's articles in ***Worldradio*** very much and look forward each month to seeing them. 73 es tnx"

So, there are two completely different opinions formed from looking at the exact same material.

Naturally, I prefer the one from a contemporary.

(Tune in next month for another adventure of the Masked Avenger, whose motto is: Beware evil-doers, wherever you are.)

Be sure to visit the Worldradio crew at our booth in Visalia



Contests

Dave Goodwin
VE2ZP/VE9CB

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packet: VE2ZP@VA3TCP.#EON.ON.CAN.NOAM

State QSO parties and national contests

About half of U.S. states, five Canadian provinces and many countries have contests where all the action is focused on them. These range in size from tiny affairs, like the "Maritime Contest" involving only VE1s, VE9s and VY2s in eastern Canada (100 contacts is a whopping great log in this one) to the ARRL DX Contest where the bands fill with activity, and many thousands of contacts are made. In between, there is a range of smaller events, where the idea is for people outside a region to contact amateurs in that region and vice-versa.

In the U.S., there are many state QSO parties in which you can participate. They are fun in their own right, and they can be useful if you are working toward some other goal, like ARRL's Worked All States (WAS), Five-Band WAS, *CQ* Magazine's USA Counties Awards (USACA) or the dozens of other operating awards and certificates we Hams chase.

Most U.S. state QSO Parties follow a familiar pattern. Let's take this month's Michigan QSO Party as an example: Amateurs in Michigan work everyone they can, while other stations may only work Michigan stations for contest credit. Michigan stations send their counties in the exchange, and use Michigan counties, U.S. states, Canadian provinces and territories and DXCC countries as multipliers. Stations outside Michigan count that state's 83 counties for their multiplier.

Some state QSO parties have long histories, and are very well organized. The biggest and most popular include the California, Pennsylvania and Texas QSO Parties, which take place on successive weekends of October. These events are a success for a number of reasons. These states have large enough amateur populations to sound quite busy to the casual participant, the organizers developed a set of rules that are easy to follow, and they send entry forms and results to everyone who sends in a log. In short, they make it hard for people to miss or forget about their contests.

National contests

There are many contests where the activity focuses on one country or region of the world. Amateurs outside that region or country may only make contacts with stations inside, and vice-versa. In many places, these events are connected with national holidays, and they can be the biggest on-air events of the year for the local Hams. National contests vary in size, running from the ARRL DX Contests in which Canada and the continental USA are center-stage, to very small events, like the Croatian CW Contest. The former will generate activity from all over the world, while it might be hard to find much activity in the latter contest.

Perhaps the most interesting of these contests are the Worked All Europe DX Contests, sponsored by the German Amateur Radio Club (DARC). In these summer and fall events, stations in Europe may only work amateurs on other continents. For folks like us here in North America, we work only Europeans. For me, there are three big attractions to this contest. Europeans are out in large numbers, making for a very busy time, and European contesters are generally excellent operators. A clever "QTC" rule affords those outside Europe an opportunity to double our scores by sending extracts of our logs on the air to Europeans. This interesting contest will be profiled as "Contest of the Month" in the August issue.

Awards

Like many sports, contests offer awards to those who do particularly well. The most common award is a certificate. These are usually colorful, 8x11 inches and suitable for framing, and mounting on your shack wall. In most contests, there are certificates available to the top-scoring station in each U.S. state in each entry category. In contests with many entry categories, your chances of winning a nice piece of wallpaper are quite good. These really dress up the shack, and wow the neighbors when they come to visit.

In many contests, entrants who are the overall or national winners in their categories may earn an impressive-looking plaque or trophy.

Contest	Date/Time	Bands	QSO points	Multipliers	Exchange	Entry Catagories	Entries
SP DX Contest (Poland)	1500Z 4 Apr 2359Z 5 Apr	160-10M	3pt/QSO Work SP only	Polish provinces (49) SPs will send 2-letter province abbreviation	RST Ser#	Single Op: All bands; single band multi-op SWL	1 mo. Box 320 00-950 Warsaw, Poland
Spanish RTTY	1600Z 4 Apr 1600Z 5 Apr	80-10M RTTY	2pt/DX 1pt/NA x2 on 40, 80M	CQ zones & Span. provs. (52) EA stations will send 1- or 2-letter province abbreviation	RST CQ Zone	Single Op: All bands, single band Multi-op; SWL	Box 240 09400 Arende de Duero (BU), Spain
Japan Int'l DX High-Band CW	2300Z 10 Apr 2300Z 11 Apr	20-10M CW only	2pt/JA Work JA only	JA prefectures (50) JAs will send 2-digit prefecture number	RST Ser#	Single op: Both bands, single band multi-op	30 Apr Box 59 Kamata Tokyo 144, Japan
Int'l HF Grid Location Contest (USA)	1200Z 11 Apr 1200Z 12 Apr	160-10M CW and SSB Work ea. Stn once on each band/mode	1pt/QSO	Grid squares (ie. FN25) on each band	Grid Name	Single op: Mixed mode, CW only SSB only Multi-op Two Tx Rover (1 or 2 ops moving from grid to grid)	30 days Box 180703 Austin TX 78718 or e-mail: geoiii@bga.com
QRP ARCI Spring QSO Party CW	1200Z 11 Apr 2400Z 12 Apr	160-6M CW	5pt/QSO with QRPARCI mbr. 4pt/DX non-mbr. 2pt/North Am non-mbr.	U.S. states, Canadian provs & terrs, DXCC countries Mult. your score by 1 if you ran over 5W, by 7 if you ran under 5W, by 10 if you ran under 1W, by 15 if you ran under 250mW.	RST QTH+ QRPARCI mbr #; non-mbr send power	Single-op: All bands, High bands (6-10M), Low bands (40-150M) Also teams of 2-5 entrants — register your team with N6GA before the contest	30 days N6GA
King of Spain	1800Z 11 Apr 1800Z 12 Apr	80-10M CW & SSB	1pt/QSO	Spanish provinces (52) worked on each band. Spanish Stns will send 1- or 2-letter province identifier after the Ser#	RST Ser#	Single op Multi-op SWL	16 May Box 220 Madrid Spain
Australian Postcode Contest	0000Z 18 Apr 2359Z 18 Apr	80-10M CW & SSB	10pt/QSO Work VK only	Australian postal codes. VKs will send a 4-digit number after the RST.	RST Ser#	Single op; CW only, SSB only SWL	30 days Oceania DXG Box 929 Aymple QLD 4570 Austria e-mail: odxg@keylink.com.au
Holyland DX Contest (Israel)	1800Z 18 Apr 1800Z 19 Apr	160-10M CW & SSB	1pt/QSO x2 on 160-40M Work Israel only	4X, 4Z stns will send a 5-char area identifier. (ex: E14TA). Each unique identifier is a multi on each band	RST Ser#	Single op all bands Multi-op, single tx SWL	31 May Box 17600 Tel Aviv 61176 Israel
Michigan QSO Party (USA)	1800Z 18 Apr 0200Z 20 Apr 0300-1100Z off time for all entrants	180-2M CW, SSB, FM	1pt/SSB 2pt/CW +5pt bonus for QSOs with K6EPV, W8JXU	For stns outside Michigan: MI counties (83) For MI Stns: MI counties, U.S. states, Canadian provinces & terrs, DXCC countries	RST Ser# QTH	Single op Multi-op Mobile	31 May EMARC Box 611230 Port Huron, MI 48061-1230 e-mail: k8dd@contesting.com
European Spring Sprint CW	1500Z 18 Apr 1859Z 18 Apr	80-20M CW	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days G4BUO
YU DX Contest (Yugoslavia)	1200Z 18 Apr 1200Z 19 Apr	160-10M CW only	1pt/own ITU Zn 3pt/oth NA 5pt/DX	ITU zones and Yugoslavia prefixes on each band	RST ITU Zone	Single op: Mixed mode, CW only, SSB only Multi-op, single tx	30 days Box 48 11001 Beograd Yugoslavia
Helvetia 26 (Switzerland)	1300Z 25 Apr 1300Z 26 Apr	160-10M CW & SSB	3pt/QSO Work HB9 only	Swiss cantons (26) on each band. HB9s will send 2-letter canton abbreviation	RST Ser#	Single op: All bands SWL Multi-op, single tx	14 June HB9DDZ
Nebraska QSO Party (USA)	1700Z 25 Apr 1659Z 26 Apr	All amateur bands (exc. 10, 18, 24) all modes	1pt/Fone QSO 2pt/all other modes	For stns outside Nebraska: NE counties (93) For NE stns: NE counties, U.S. states, Canadian provs & terrs, DXCC countries	RST QTH	Single op Multi-op Mobile Novice/Technician-class licensee	31 May NE QSO Party Box 375 Elkhorn NE 68022-0375
Ontario QSO Party (Canada)	1800Z 25 Apr 1800Z 26 Apr	160-mmicro-waves CW, SSB & FM (No FM on 146.62)	1pt/QSO 10pt/VE3ODX, VA3RAC Stns outside Ontario work only Ont. Stns	For Ontario stns: Ontario counties, districts, regional municipalities (49), Canadian provs & terrs, U.S. states, DXCC For others: Ontario counties, districts, regional municipalities (49) only.	RST QTH Ont. Stns send 3-let. county abbrev.	Single op all bands mixed mode: High pwr, low pwr, QRP Single op all bands CW only: High pwr, low pwr, QRP Single op all bands SSB only: High pwr, low pwr, QRP Single op VHF-UHF FM QRP Multi-op Mobile (may be more than one op) SWL	31 May Box 161 Stn A Willowddale ON M2N 5S8, Canada e-mail: ve3sre@compuserve.com
Florida QSO Party (USA)	1800Z 25 Apr 2400Z 26 Apr 0400-1400 off time for all entrants	80-10M CW & SSB	1pt/SSB QSO 2pt/CW QSO	For Florida stns: U.S. states, Canadian RAC Sections, DXCC on each mode Others: Florida counties (67) on each mode Multiply your score by 1 if you ran >150W, by 2 if <150W, by 5 if <5W	RST QTH	Single op Multi-op single tx Multi-op multi tx Mobile (may be more than one op) Novice/Tech class licenses each of these categories are further divided into high pwr, low pwr, QRP.	30 days K4OJ or e-mail: FLQSOParty@aol.com

Addresses: *CQ* — 76 N Broadway, Hicksville, NY 11801 USA ARRL — 225 Main St., Newington, CT 06111. Call sign — Callbook address
Bands: The 30, 17 and 12M bands are never used in any contest. Official forms and complete rules may be available from me. Please send SASE for details.

These are even more impressive than the certificate, being made of wood and affixed with metal plates lauding your accomplishment.

There are even a few contests that offer travel as a prize. The Bermuda Tourism Authority will pay the airfare of the winner of the Radio Society of Bermuda's annual contest, so you can attend the RSB annual dinner and pick up your trophy in person. An enthusiastic supporter of the Japan International DX HF SSB Contest will pay the airfare of the top-scoring U.S. single operator to attend a similar function in Japan. Now those are prizes!

Records

With prizes like those, one might think those two events are the biggest thing in contesting — they aren't, not by a long shot. What really makes the serious contester's pulse quicken is setting a record.

Like every other sport, contests have their record books, and they serve two functions — To laud the accomplishments of past champions, and to give the up-and-comers something to shoot for. In contesting, few feelings can match the satisfaction of knowing that you have made a score no one else ever has.

Contest sponsors often make a point of accumulating lists of record scores, and circulating them to participants. *CQ* Magazine, for example, runs a full page of all-time World and USA records with the results of their popular WWDX and WPX contests. *The National Contest Journal* (published by ARRL) updates state-by-state records every time they publish the results of the North American QSO Party of North American Sprint. NCJ also publishes similar records for the ARRL Sweepstakes and other contests. Many of the state QSO Parties and national contests include lists of record scores in the results they send to participants.

An old record can be a great motivator. If I put in a serious effort in a contest, I almost always pin up a list of the current Canadian, North American and (sometimes) World records and my previous best effort. Sometimes, I will even research the best ten scores from Canada. As the contest comes to a close, I keep looking at these scores, measuring how well I've done against the efforts of other contesters in previous years. It can be very exciting to track your score as it climbs towards a record.

Contests in April

There's no particular contest of the month this month. Instead, April offers a buffet of smaller, more cozy events well worth exploring. There are separate national contests sponsored by organizations in Poland, Spain, Japan, Australia, Israel, Yugoslavia and Switzerland. There are also QSO Parties aplenty, with the action focused on Michigan, Nebraska, Ontario and Florida. The Florida QSO Party is an all-new contest, and the Ontario QSO Party is nearly-new, having hit the airwaves for the first time in 1997.

If you like QRP, or would like to try it, give the QRP Amateur Radio Club International's CW QSO Party a try. As well, April features a U.S.-based international contest in which Grid Squares are used in the exchange and for the multiplier.

73, and good luck in the contests.
Dave VE2ZP/VE9CB.

Worldradio adding to its "Hall of Fame"

After much discussion among the massive (gravitationally challenged!) staff here at Worldradio, a decision has been made to honor our fellow Amateur Radio Operators by opening 2 new wings at the ***Worldradio*** Hall of Fame.

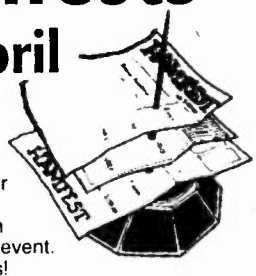
The 2 wings are to be know as: "The QRM Hall of Fame"and "The Ragchewer Hall of Fame." Criteria for being honored as a member of each is as follows:

Inductees names and call signs for each Hall of Fame shall be sent to the ***Worldradio*** offices by U.S. Mail only. Each envelope shall have "ATTN: _____ Hall of Fame" in the lower left corner. Electronic "e-mail" nominations are not acceptable, and upon receipt, will be forwarded to the inductee's email address. Each nomination must be hermetically sealed in a security envelope. Upon receipt of the envelope, the staff at ***Worldradio*** will place the sealed envelope in each respective Hall of Fame.

Each inductee into the new wings will repose with honor for a period of 1 year. Each and every year, during Field Day, all sealed envelopes containing the names and call signs of inductees will be ceremonially cremated at the base of the infamous ***Worldradio*** DX antenna complex, and the ashes shall be gathered and placed in the nearest landfill.

Hamfests

April



Do you have a Hamfest coming up? Send your information to our 28th St. office at least 2 months in advance of your event. We'll send prizes!

•ARKANSAS•

The **Central Arkansas Radio Emergency Net** (CAREN) has scheduled its Hamfest for 03-04 April at the Sherwood Forest Convention Center (lll West Maryland Avenue, Sherwood). Adm.: Free, Talk-in: 146.940 (–). For more info.contact J. C. Smith, N5RXS, 501/568-7982.

•CALIFORNIA•

The **Kings Amateur Radio Club, KA6Q** is sponsoring the Hams and Hackers Swapmeet on Saturday 04 April starting 9 a.m. at the Hanford Fraternal Hall (10th Avenue @ Florinda, Hanford). Sellers fee $5 (buyers free). Door prizes. Refreshments. Free RV parking. Talk-in 145.11, 147.33, 224.44 or 441.900. For reservations or more info call Rick, WB6VFZ, 209/945-2266 or Doug, KC6BGQ, 209/582-0949.

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The **Livermore Amateur Radio Klub** swapmeet will be 05 April, 7 a.m.-noon at Las Positas College, 3033 Collier Canyon Rd., Livermore, CA (Airway Blvd. exit to north of 580 Highway), featuring new, used, surplus Ham, computer gear, misc. electronics & testing equipment, with refreshments available. Adm./parking, free. Vendors—$10.00/space (space equals two parking places). Talk-in: 145.350(–) PL 100 (receive and send), 147.045(+) PL 94.8, 147.120(+) PL 100. Contact Noel Anklam, eve 510/447-3857, days 510/783-2803.

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The **Valley of the Moon ARC**, W6AJF is holding its annual ARRL Hamfest Saturday 25 April, 8 a.m.-noon at the Sonoma Valley Veteran's Memorial Building. Admission is free and Hams are encouraged to bring the entire family.

Walk-in VE exam session. Electronics swap meet. Setup starts at 7 a.m. with spaces for $10. Breakfast for $5. Forums will include an operating QRP station and display of homebuilt equipment, a beginner's D.F. hunt and more. VOMARC will be participating in the QRP to the field contest which will be running during the Hamfest. Guests are invited to take a turn operating the club station. For a map and printed directions to the Hamfest send a business sized SASE to VOMARC 358 Patten St., Sonoma, CA 95476. Talk-in will be on 145.35, 600 PL 88.5. For more information call Darrel, WD6BOR at 707/996-4494.

•CONNECTICUT•

The **Radio Amateur Society of Norwich** is sponsoring the Ham Radio Auction 04 April at the Waterford Senior Center on Rt. 85 (from Hartford, take Rt. 2 South to Rt. 11 to Rt. 85 South; from the Shoreline, take Rt. 95 to Rt. 85 North). Setup 9 a.m. auction starts 10 a.m. Talk-in 146.730(–). Bring your gear to sell (10% commission to RASON). Free adm., free parking. Contact Tony, AA1JN, at 860/859-0162 or see the RASON web page at www.ims.uconn.edu/~rason

•FLORIDA•

The Flamingo Net and **The University of Miami Amateur Radio Club** will hold the Tailgate Ham Swapfest on Saturday, 11 April from 8 a.m.-noon in the Physics Parking Lot of the University of Miami Coral Gables Campus.

There will be VE exams. Talk-in is on the U. of M. repeater, 146.865(–6). For more information, check into the Flamingo Net on Friday evenings: 7:30 p.m., 29.044 MHz; 7:45 p.m., 147.210(+6); 7:50 p.m., 146.910(–6); 7:55 p.m., 146.865(–6); 8 p.m., 28.444 MHz. You may also call Walt, W4DWN, at 305/895-0398.

•ILLINOIS•

The **Moultrie Amateur Radio Klub** will hold its 36th annual Hamfest 26 April in Arthur at the Moultrie/Douglas County Fairgrounds on the south side of Arthur (just off Illinois Route 133 behind the high school). The hours of the Hamfest are 8 a.m.-1 p.m. There will also be a forum tent. Talk-in will be on 146.055/146.655 and 449.275/444.275. Adm. will be $4 per person over the age of 14 years.

Indoor space is available. The tables are $10 per table paid in advance. To reserve tables or for information write to M.A.R.K, P.O. Box 91, Lovington, IL 61937. Or call for information daytime 217/543-2178 or evenings 217/873-5287.

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The **Dupage ARC** will hold their Hamfest and Computer Show 19 April at the Hawthorne Race Course, 3500 South Cicero Ave. Stickney Illinois. Tickets $4 advance, $5 door. Saturday setup: Commercial dealers can set up indoors, from 3 p.m.-6 p.m. Sunday setup: Commercial and fleamarket can set up after 6 a.m. Hamfest hours Sunday are: 8 a.m.-2 p.m. Food, refreshments, free parking, hourly door prizes. For table availability call: 630/985-9256. For tickets send check, payable to: "DARC", enclose a #10 envelope (SASE) to: Hamfest 98, 7511 Walnut Ave., Woodridge, IL 60517-2818.

•INDIANA•

The **Denison Repeater Association** will host an Amateur Radio Swap Meet on Sunday, 05 April at the Deloit Community Building in Deloit. Hours will be 7 a.m.-2 p.m. Tables and Adm. $2. Talk-in will be on the KØCNM repeater (147.090). reservations for table space may be sent to

John Amdor, KD6MXL, 1136 Street F16, Defiance, IA 51527. For more info. Write or send e-mail to John @ johnmxl@netins.net. See www.netins.net/showcase/johnmxl/deloit.html.

•MASSACHUSETTS•

The **MIT Electronics Research Society**, the **MIT Radio Society** and the **Harvard Wireless Club** Flea Market will be Sunday, 19 April, 9 a.m.-2 p.m., Albany and Main St., Cambridge MA. Admission $4. Free off-street parking for 1000 buyers. Fully handicapped accessible. Tailgate room for 600 sellers, Sellers $10 per space at the gate, $9 in advance — includes 1 admission, setup 7 a.m. For space reservations or further info call 617/253 3776. Mail advance reservations before the 5th to W1GSL, P.O. Box 397082, MIT BR., Cambridge MA 02139-7082. RAIN or SHINE — covered tailgate area available for all sellers! Talk-in 146.52 & 449.725/444.725 – pl 2A – W1XM/R.

•MINNESOTTA•

The **Southwest Metro Amateur Radio Transmitting Society, Inc.** is sponsoring Smartsfest 98 Hobby Electronics Show Sunday, 19 April from 12-5 p.m. at Canterbury Park in Shakopee. Flea market set-up 7 a.m. Tables available. VE testing. Ticket $4 advance, $5 door. For info write or call: SMARTS Inc., P.O. Box 144, Chaska, MN 55318; Helen 612/361-6782.

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The **Lake Region ARC** is holding its Hamfest 18 April 8 a.m.-3 p.m. at the Otter Tail County Fairgrounds (Hockey Arena, Hwy. 82 So.). VE testing. Talk-in 146.040, 146.640. Adm. $4 adv., $5 door. Tables $5/8ft table. To register or for info contact Stan Olson, WØLUP, 641 W. Maple, Fergus Falls, MN 56537; 218/736-4980.

•MISSISSIPPI•

The **Tupelo ARC, Booneville ARC** and **Union County ARC** are sponsoring the North Mississippi Hamfest & Computer Expo '98 10-11 April at the Trace Convention center at the intersection of Hwy. 6 and the Natchez Trace Parkway.

Set-up Friday noon-5 p.m., Saturday 6-8 a.m. Public Friday 5-9 p.m., Saturday 8 a.m.-4 p.m. All indoor Hamfest/Computer Show, flea market, vendors, VE session (9 a.m.) free parking, refreshments. Talk-in 147.38. Call KC5OBD, ragchew 145.49 Adm: $5 for over 12. Tables $20. Write Jack Ellis, KI5QV, Rt. 4, Box 198-B, MS 38801; Tel. 601/842-7255 or www.tupelofest.org

•NEW JERSEY•

The **Delaware Valley Radio Association** is sponsoring the Hamcomp 98 Hamfest on Sunday, 05 April at Tall Cedars of Lebanon picnic grove (Sawmill Rd., Hamilton Twp) from 8 a.m. Set-up 6:30 a.m. Adm. $5, children & non-Ham spouses free. Free parking, refreshments, ARRL table. Tailgating spaces $10, covered table $15. Talk-in 146.67 (–). For more info: 609/882-2240; www.slac.com/w2zq; Hamcomp 98, DVRA, P.O. Box 7024, West Trenton, NJ 08628.

•NEW MEXICO•

The Bean Feed, annually sponsored by the Mesilla Valley Radio Club, will be held on Sunday, 26 April. The site will be the club house on the east mesa near Las Cruces. See the club web site, www.zianet.com/mvrc, for a map or use the talk-in frequency of 146.64.

•NORTH CAROLINA•

The **Raleigh Amateur Radio Society** will have its RARSFest 98 05 April 8 a.m.-4 p.m. at the Jim Graham Building (NC State Fairgrounds, Raleigh). Hamfest prizes, special interest meetings, family activities. Wouff Hong induction, Amateur Radio exams (Walk-in reg.). Testing begins 11:00 a.m. Cost for exam is $6.35. For exam info: Vince Yakamavich, AA4MY, P. O. Box 97203, Raleigh, NC 27624; 919/676-4697. Wilbur Goss, WD4RDT, 919/266-7883 for info. Dealer booths are available at reasonable cost. For more info., contact Chuck Littlewood, K4HF, 2005 Quail Ridge Rd., Raleigh, NC 27609; 919/872- 6555. Unloading 12 noon-10 p.m. Saturday and Sunday 6-7:30 a.m.

•OHIO•

The **Twenty over Nine Radio Club, Inc.** computer/electronics flea market will be at the Canfield Fairgrounds (Rt. 46 Canfield) on Sunday, 26 April 8 a.m.-3 p.m. Adm. $5 for over 12. Outdoor flea market space is free with adm. Inside tables $10 ea. Talk-in 147.315(+) or 443.225(+) Alt. 145.275(–). For info contact Sharon Spencer, 424 Peffer St., Niles, OH 44446; 330/544-3666.

•OKLAHOMA•

The **Lawton Ft. Sill ARC** will hold their 52nd Annual Hamfest and Computer Fair Saturday 11 April at the Comanche County Fairgrounds in Lawton. Talk-in will be on 146.91 (–) offset. Adm. will be $5 before 03 April and $7 at the door. Tables will be $10 for the first and $8 for additional tables before 03 April or $15 each at the door. Setup is available Friday evening from 1800 to 2200 and Saturday 0630. The doors will open to the public at 0800. For more infonnation write Bob Morford, KA5YED: 1415 N.W. 33rd Street Lawton, OK 73505 or call at 580/355-6120; w5ks@rli.net

•OREGON•

The Blue Mountain Regional Hamfest & Computer Fair, hosted by the **Pendleton ARC**, W7PL, will be held Saturday, 11 April, 8 a.m.-4 p.m., at the Pendleton Convention Center, 18 S.W. Court, Pendleton, OR (Exit 207 off I-84). Seminars, ragchew room with coffee & eats, dealers' hospitality room. VE testing at 2:00 p.m. ($6.25 test fees, pre-registrations required); contact Mike Duffy: Mduffy

@orednet.org

General adm. $5 per person, under 12 free with paid adult. On-site RV parking spaces with electrical hookups @ $15.00 per night, available starting at 2:00 p.m. Friday, 10 April. Talk-in frequency 146.880.

Commercial dealer & swap vendor setup Friday, 10 April, 1:00 p.m.-8:00 p.m.; Saturday 7:00 a.m. Commercial dealers, $25.00/10x10 ft area, electricity & tables provided if needed. (Adm. included for dealers.) Swap tables $5.00 each (adm. not included). For info.: Denton, WB7TDG, at 541/276-8319; email: denton@oregon trail .net; or Monty, KC7WBY, 541/276-7142; e-mail, treeshop@juno. com

•PENNSYLVANIA•

The **Appalachian Amateur Radio Group** will be holding their Tenth Annual Hamfest and Computer Show on Saturday, 04 April at the Northern Lebanon High School in Fredericksburg. Doors open 8 a.m. Adm. $4 (kids under 12 free). VE exams at 9 a.m. Indoor tables $14, tailgating $4. Talk-in 146.04/64. For info: AARG, 105 Walnut St., Pine Grove, PA 17963; 717/345-3780.

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The **Penn-Del ARC.** will hold their annual Hamfest and will host the 1998 ARRL. Delaware state convention on Sunday, 26 April from 9 a.m.-3 pm at the Nur Temple on Rte. 13 north in New Castle, 1/4 mile north of Rte. 13 and Rte. 40 intersection. Adm. $5. under 12 free. Talk-in 147.225 (+) or 224.220/R. Tables by reservation only with payment to: Penn-Del Hamfest 98, P.O. Box 1964, Boothwyn, PP 19061. Setup at 6 a.m. Tailgating is $10/space on a first-come first-serve basis. Event features, a certified skywarn spotter training class, ARRL. & Club leaders forum, special guest speaker Ed Hare, W1RFI, from ARRL. headquarters will present a seminar on the new FCC RF exposure regulations and will also be available to assist with the completion of evaluation forms. Catered breakfast and lunch menu. For additional information contact Hal Frantz, KA3TWG at 302/793-1080 or e-mail hfrantz@mag page.com; up-to-the-minute info/lodging and vendor forms at http://www.magpage.com/penndel

•RHODE ISLAND•

The **Fidelity ARC** and **Washington County ARC** annual Hamfest will be Saturday 25 April, 9 a.m.-4 p.m. on Rte. 3 in West Greenwich.

VE Exams at 12 p.m., walk-ins all classes. Vendor setup at 7 a.m., $6/6-foot space. Buyers at 9 a.m., adm. $1.

Contact: Bill May @ 401/822-0520, wa1wm@juno.com or Everet Lovenbury, N1VEZ, 401/539-1107, n1vez@juno.com Talk-in: 147.165 and 145.130, Simplex 146.580.

•TENNESSEE•

The **Rhea County Amateur Radio Society** is sponsoring the Dayton Hamfest/Computer Show 18 April 9 a.m.-3 p.m. at the Dayton Skills Center, Dayton. Adm. $5. Tables $10. Tailgating spaces avail. Prizes. Talk-in 147.390 (+). For info contact: Tom Mize, KØ4SY, 423/570-0840.

•TEXAS•

The **Temple ARC** is sponsoring Spring Fest on Saturday, 18 April at the Bell County Expo Center. Doors open 7 a.m. Adm. $1. Tables $10. Setup begins 5:30 a.m. Free electricity. Talk-in 146.820 (–), PL 123.0 Hz. Contact: Temple ARC, P.O. Box 4511, Temple, TX 76505 or Mike LeFan, WA5EQQ: 254/773-3590; e-mail: hamexpo@vvm.com; web page: www.tarc.org

•WASHINGTON•

Lilac City ARC Hamfest is Saturday, 04 April 9 a.m.-5 p.m., setup time 7 a.m.-9 a.m. St. Ann's Parish Hall, E. 2120 First Ave., Spokane. Adm. $4. Six-ft. tables $5. Contact Ivan Brown, N. 6726 Fleming, Spokane, WA 99208, 509/327-7196.

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The **Fort Vancouver Hamfair 98** will be 04 April, 8 a.m.-1:30 p.m. at the American Legion Post 176 (Salmon Creek). 14011 NE 20th Ave. Vancouver, WA 98686. VE testing on site. Talk-in 147.24 (+). Adm. $3 advance, $4 after 04 March. Tables $10 advance, $15 after 04 March. Contact: 360/896-8909 or www.w7aia.org

•WISCONSIN•

The **Madison Area Repeater Association, Inc.** (MARA) will hold its Madison Swapfest Sunday, 05 April at the John Q. Hammons Trade Center in Middleton, WI. Open to public 8 a.m. Concessions will be available. Talk-in will be on the MARA. repeater, W9HSY, 147.75/15.

Adm. is $5 advance, $6 at door and children under 10 free. Flea market tables (2.5' x 6') are $15 each in advance. Deadline for mail orders of adm. tickets & table res. is 28 March 1998. For tickets, table res. or info. on commercial exhibit space write to: MARA., P.O. Box 8890, Madison WI 53708-8890; 608/245-8890. Swapfest web site: http://www.cs.wisc.edu/~jeremyc/mara/swapfest

Married, with Amateur Radio

On Saturday, 10 January, Erin Burck, KD4YLR and Don LaFreniere, VA3DJL, were married in East Lansing, MI.

The two first met at the Dayton Hamvention where Don was a speaker at Carole Perry's annual Youth Forum and Erin was in the audience.

They later ran into one another on the air and arranged to meet in person at one of the Southeast Michigan Swapfests. After that, they began dating and conversing on their own secret 2-meter frequencies. Eventually they decided they wanted to spend the rest of their lives with one another.

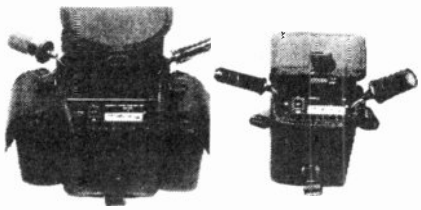
Amateur radio can be many things to many people, but for Erin and Don its what has made two people into one. — *WB2MGP; A8GDT; Newsline*

Information in "New Products" is supplied by the manufacturers to acquaint *Worldradio* readers with new products on the market.

35-watt handheld

Now you can have the power of a 35-watt base station with your 2-meter handheld radio. This unit solves the handheld dilemma: how do I get my radio to be compact and portable, and give me the power of a larger rig, without investing in expensive power supplies and mobile/base station units? Just plug your handheld radio into the PowerPort RF-35, grab the carrying strap and take it with you wherever you go. You no longer need separate setups for your car, your home, or out in the field. The RF-35 is fully self-contained with its own highly portable power supply that gives you 35 Watts wherever you are.

The rechargeable PowerPort RF-35 by Cutting Edge Enterprises amplifies your signal to 35 Watts. With 9 amp hours of onboard 12 V DC power, you can maintain communications all day, anywhere, without a break to recharge. With two and a half hours of solid transmit time and unlimited standby, the RF-35 will outlast your handheld battery! If you can't talk quite that long and want something even more lightweight, the RF-35 Jr. (at 3 pounds and 2.3 amp hours of DC power) will still give you .75 hours of solid talk and unlimited standby. Its sturdy carrying bag makes transport a snap. The RF-35 also has removable side pockets to hold your HT and accessories, keeping all your communi-



cations gear compact and hand portable.

This unit is ready to go, right out of the box. It is fully charged, comes with RG-174/U mini-cable with BNC connector for your HT, and a mini "j" antenna on 10' of cable (3 dB gain and 14' tall) is tucked into one of the accessory pockets for your convenience. PowerPort RF-35 Jr.: $159.95 PowerPort RF-35: $179.95

For sales and information contact: Cutting Edge Enterprises, 800/206-0115; 1803 Mission Street, Suite #546, Santa Cruz, CA 95060.

Featherweight Earphone/Microphone

MFJ proudly announces the MFJ-292 (I,K,Y) Featherweight Earphone/Microphone for only $19.95!

MFJ's new Featherweight has an earphone that fits comfortably in your ear. A tiny thumb-size microphone with a push-to-talk switch is built into the cord. It's barely noticeable and is so lightweight that you won't even know it's there. A small lapel/pocket clip secures it to your shirt or coat.

MFJ-292 is private. It's quiet. Only you can hear. If you whisper closely, the sensitive microphone lets you carry on a quiet, discrete QSO that won't bother anyone.

Its high quality dynamic earphone and electret microphone gives your handheld crystal clear audio. It's super ultra-lightweight, just 30 grams.

The dynamic earphone is 8 Ohm and handles 250 mW. The non-directional electret condenser microphone has –64 dB sensitivity and 1.1K Ohm impedance. The 4-foot long durable cord has heavy insulation at the crucial bend points, and is made of high-impact plastic.

Order MFJ-292I for ICOM, Yaesu, Alinco, Standard, ADI and compatibles. MFJ-292K for KENWOOD and compatibles. MFJ-292Y for YAESU FT-10R, FT-40R, FT-50R, and XV-1R transceivers only.

Stop hauling around heavy, bulky speaker/mics that get in your way and publicly blare out for all to hear. MFJ's new FeatherWeights are ultra-lightweight, comfortable and have superb receive and transmit audio.

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11-oz. cobalt blue ceramic mug, logo in light blue.

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one-year limited warranty. MFJ will repair or replace (at their option) your MFJ-292 no matter what for one complete year.

For your nearest dealer or to order, call toll-free 800/647-1800, fax 601/323-6551 or write to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759. Visit us on the Web http://www.mfjenterprises.com

Morse code book

In 1936, Ludwig Koch, a German psychologist, published the results of extensive research on Morse Code proficiency and showed how he trained students to copy at 12 words per minute in as little as 13.5 hours. That is by far the fastest Morse training program ever published.

Based on its documented success, Koch's method should have become widely, if not universally, adopted by Hams trying to pass the 13-wpm or 20-wpm exams. But it wasn't. Today, very few people know about his work. How come?

"Very simply, Koch's technique was ahead of the technology of his time," says Dave Finley, N1IRZ, author of a new book on Morse training. "For most people, the kind of practice you need for Koch training wasn't available until microprocessors came along," Finley said. "Because the technology for using his method didn't exist back then, the method was forgotten."

In *Morse Code: Breaking the Barrier*, published by MFJ Enterprises, Inc., Finley shows how, using a computer or a microprocessor-based pocket code trainer (MFJ-418), today's Hams and would-be Hams can use Koch's technique to build high- speed code proficiency quickly and efficiently. Besides its speed, Finley says, Koch's method has another, more important advantage over "traditional" code-training methods.

"With Koch's method, you receive frequent, positive reinforcement — assurance that you really are making progress. That means there are no 'plateaus,' you stay motivated and don't quit out of frustration," he says. "Koch's training speed was achieved with students hand-picked for code aptitude, so most people won't match that speed. However, the positive reinforcement of the Koch Method means that people will see results and stick with their training until they achieve their goal."

Finley, who used Koch's technique himself to go from No-code Technician to Amateur Extra Class, became an avid CW operator. "I learned that using Morse Code on the air is fun, and I'd like to help other Hams join in on that fun after they've upgraded their licenses." For that reason, *Morse Code: Breaking the Barrier* also includes chapters on sending code with keys, bugs and keyers; on making your first CW QSOs; and on a variety of on-the-air activities where CW can make your hamming more fun.

The book also includes a fast-paced chapter on the fascinating history of telegraphy, both landline and wireless. "When we use Morse Code on the air, we become part of a tradition that goes back more than 150 years. Knowing that history adds to the pleasure of operating," Finley says.

To order or for your nearest dealer, call 800/647-1800, FAX 601/323-6551; e-mail: mfj@mfjenterprises.com; or check out dealer and ordering information on our web site: http://www.mfjenterprises.com. *Morse Code: Breaking the Barrier* (MFJ-3400) is available for $14.95 plus shipping.

VHF/UHF Handbook

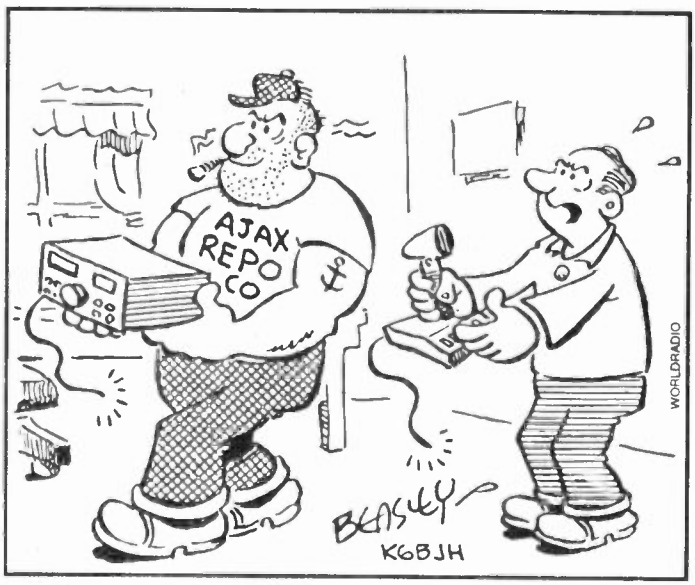
The RSGB's *VHF/UHF Handbook*, edited by Dick Biddulph, G8DPS, now is available from the ARRL. This 317-page book is the successor to the *VHF/UHF Manual*. It covers a broad array of topics for beginners and experts alike and includes information on specialized modes such as data and TV. The *VHF/UHF Handbook* is ARRL Order No. 6559. It's $35 plus $6 for UPS shipping. Call toll free, 888/277-5289, or visit the ARRLWeb site at http://www.arrl.org/catalog — *RSGB, ARRL Letter*

VE exam schedules

As a service to our readers, ***Worldradio*** presents a feature listing of those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is **three months in advance**. For example, if your VE group is scheduling an exam for December, please have the information to us by mid-September. ***Worldradio***, 2120 28th St., Sacramento, CA 95818. Please mark the envelope "VE Exams." List the location (City), any information examinees should have (advance registration, etc.) and the name and telephone number of a 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-register only—no w/i
w/i=walk-in only
w/i pref.=w/i preferred to p/r

State	City	Contact	Notes
Arizona			
5/09/98	Tucson	Joe, K7OPX 520/886-7217	w/i
Arkansas			
5/09/98	Forrest City	Tom, KK5YN 501/633-4207 or Preston,NØHNQ 501/630-1168	w/i
5/16/98	Gassville	Phil, AB5ZU 870/425-7406	p/r pref.
California			
5/30/98	Culver City	Scott, K6PYP 310/459-0337 or Dave, N3BKV 818/559-2572	w/i
5/02/98	Culver City	Clive, AA6TZ 310/827-2538	w/i pref.
5/30/98	Escondido	Harry, WA6YOO 760/743-4212	p/r
5/05/98	Fremont	Dennis, K6DF 510/791-0914	w/i only
5/17/98	Fresno	Charles, W6DPD 209/431-2038	p/r pref.
5/09/98	Harbor City	Elvin, N6DYZ 310/325-2965	p/r
5/23/98	Lake Isabella	HOTLINE 760/379-2947	p/r pref.
5/25/98	Montclair	Steve, 909/597-2249	w/i pref.
5/03/98	Oakland	Vern, AA6YE 510/233-4504	p/r pref.
5/16/98	Pablo Verdes	Paul, KITKL 310/644-2271	w/i
5/16/98	Petaluma	Dale, 707/762-9414	p/r pref.
5/16/98	Redwood City	Joe, KB6OWG 408/255-9000	w/i only
5/10/98	Sacramento	Dick, N6DK 916/383-2113	p/r
5/09/98	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
5/16/98	Stockton	Mark, W6DKI 209/465-7496	w/i
5/09/98	Sunnyvale 1	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
5/25/98	Upland	Warburg, WA6HNC 909/949-0059	p/r
5/09/98	Visalia	AB6TL, 209/732-9652	
Colorado			
5/09/98	Denver	Glenn, WØIJR 303/366-0155	w/i pref.
Florida			
5/16/98	Melbourne	Bill, WB9IVR 407/724-6183	p/r pref.
Georgia			
5/02/98	Ellijay	Hugh, W4HFB or Dorothy, K4PPS 706/276-6660	w/i
5/03/98	Gainsville	Terry, K4FB 770/967-6364	
Idaho			
5/09/98	Boise	Lem, W7JMH 208/343-9153	w/i pref.
5/27/98	Grangeville	Larry, AB7GY 208/983-2163	w/i pref.
Illinois			
5/19/98	Dekalb	Lynn, AA9NA 815/824-2942	no pref
5/09/98	Oak Forest	David, NF9N 708/448-0580	p/r pref.
Indiana			
5/02/98	Indianapolis	Ray, K1HG 317/788-7448 or Mark, W9MAM 317/788-7448	p/r
Kentucky			
5/09/98	Irvine	Dwaine, W4AIA 606/723-4500	w/i
Maryland			
5/16/98	Manchester	Ed, 410/239-8488	p/r pref.
Massachusetts			
5/16/98	Melrose	Scott, WB1F 617/665-7654	p/r pref.
Michigan			
5/6/98	Calumet	George, W8FWG, 906/337-2542	p/r pref.
5/2/98	Iron Mt.	"Fuzzy," WD8HDP 906/246-3641	p/r pref.
Missouri			
5/16/98	St. Louis	Ron, KBØDIY 314/510-3223	p/r
Nevada			
5/16/98	Minden	George, WW7E 702/265-4278	w/i pref.
New Jersey			
5/21/98	Bellmawr	Diane, N2LCQ 609/227-6281	w/i
5/09/98	Cranford	24-hour hotline 973/377-4790	w/i pref.
5/16/98	Pennington	Don, AA2F 609/737-1723	p/r pref
New York			
5/12/98	Bethpage	Bob, W2ILP 516/499-2214	w/i pref.
5/03/98	Yonkers	Emily, AC2V 914/237-5589	w/i ok
North Carolina			
5/17/98	Asheville	Steve, KC4ZYN, 704/645-3511	w/i
5/09/98	Burnsville	David, KK4PW 704/675-9044 or David, WA4LLR 704/675-9942	w/i
5/16/98	Concord	Bobby, AE4ZQ 704/932-9430	
Ohio			
5/02/98	Cincinnati	Herb, WA8PBW 513/891-7556	w/i pref
5/23/98	Van Wert	Robert, KA8IAF 419/795-5763	p/r pref.
Oregon			
5/20/98	Florence	Hal, N7NNA 541/997-2323 or Bob, KH7VA 541/997-1222	p/r pref.
tba	Klamath Falls	Brad, KG7OK 541/883-1737	p/r pref.
Pennsylvania			
5/02/98	Erie	Norma, W3CG 814/665-9124	w/i only
5/07/98	Philadelphia	Dusty, ND3Q 215/879-0505, 215/482-0386, 215/448-1139(tape)	p/r pref.
5/18/98	Telford	Joe, W3PNL 215/723-6697	p/r pref
Rhode Island			
5/14/98	Providence	Judy, KC1RI 401/231-9156, or Al, NN1U 401/454-6848	w/i pref.
Tennessee			
5/19/98	Cleveland	Vince, K4JC 423/473-7618	p/r pref.
Texas			
5/16/98	Austin	Jim, AB5EK 512/327-6184	w/i pref.
5/12/98	Houston	Harold, ND5F 713/464-9044	p/r pref.
Virginia			
5/07/98	Chesapeake	Pat, KE4URC 757/421-9598	p/rf
5/30/98	Gloucester	Harry, N4THN 804/642-3517	p/r pref.
Wisconsin			
5/09/98	Manitowoc	Larry, KD9IA 414/759-1167	
5/16/98	Sheboygan	Pahr, K9XJ 920/876/2370	p/r pref.



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Off the air

(Continued from page 22)

A Wega Widget!

During my last visit to Earth I found near the house of my representative for your world some magazines called ***Worldradio***. I am very glad to know my representative reads such an informative and interesting magazine. My representative, HB9DU, will provide you with the necessary schematic and drawings for the UFO detektor. Perhaps amateurs will build it and they may use it when I'm flying the next time from Wega IX. Unfortunately we couldn't try the circuit as you Earthlings can't fly as far as other stars, but if you try hard, it could happen in the near future.

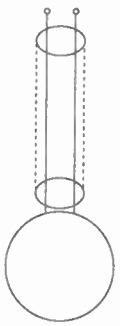
Xantor
Wega IX

Functioning: Circuit diagram provided by Xantor, Wega IX. (Rep. for Earth: HB9DU) On a display made of LEDs you'll get a signal if a UFO is incoming or outgoing. It's well known that flying UFOs create a change of the Earth's magnetic field. A small voltage is induced in the UFO coil. The voltage is amplified by IC_1 and triggers the flip-flop N_1 to N_3. That flip-flop is steering the 23 LEDs. The brightness can be regulated with R_5.

Calibrating: P_1 in intermediate position. P_2 near highest resistance. Take a small permanent magnet and wave it in the vicinity of the coil. Regulate P_1 to the highest sensitivity. P_2 depends on the velocity of the incoming or outgoing UFO.

Mount the UFO coil with only brass screws on the roof or outside your house, so it will announce the UFO before it is too late and the little green men are already in your living room or shack.... — *Rudi, HB9DU*

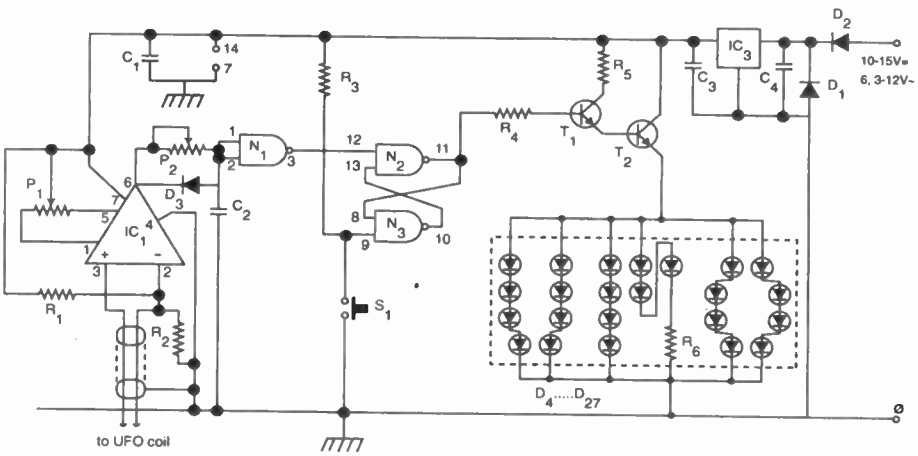
The UFO detektor



UFO coil

Parts list:
The UFO Coil:
Diameter approx. 23 cm
Windings: 5000
Wire: No. 31 to No. 30
Approx. Length 2.4 Miles
Shielded two-wire cable

IC_1 741
IC_2 N_1-N_3 4093
IC_3 7808
R_1 4k7
R_2 4k7
R_3 100k
R_4 6k8
R_5 680
R_6 39
D_1 any Si-diode
D_2-D_3 1N 4002
D_4-D_{27} LED
C_1 10µ 16V
C_2 2µ2 16V
C_3 10µ 16V
C_4 1000µ 25V
P_1 100k
P_2 10k
T_1 BC 547 or similar
T_2 BD 135 or similar with cooling fins
S_1 Push-button switch



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U.S. to participate in CEPT license

Amateur Radio operators from the U.S. soon will not need to apply for reciprocal licenses in order to operate during short visits to most European countries. While an official announcement still may be a few weeks away, the U.S. request to participate in the European guest license arrangement has been approved. Similarly, most European hams visiting the U.S. no longer will have to submit FCC Form 610A.

Last September, the U.S. State Department applied for US participation in the European Conference of Postal and Telecommunications Administrations (CEPT) Amateur Radio licensing system. A holder of a CEPT license can operate in CEPT-participating countries without having to apply for a reciprocal license.

Approval of the U.S. request came in late January at a meeting of the CEPT Radio Regulatory Working Group (WGRR), in Groningen, The Netherlands. The European Radiocommunications Office (ERO) has been instructed to officially notify the FCC of the decision approving US participation.

The State Department's action came at the urging of the ARRL that the U.S. take advantage of the CEPT Recommendation T/R 61-01 arrangements and issue a license that would be recognized by CEPT-participating administrations and would be valid for brief visits.

Also last fall, the FCC proposed amending the Amateur Radio rules to make it easier for hams holding a CEPT license or an International Amateur Radio Permit (IARP) to operate during short visits to the US.

Under the soon-to-be-implemented arrangement, a US Technician license would be recognized as a CEPT Class 2 (VHF-only) license, with full privileges above 30 MHz. Holders of Tech Plus through Extra tickets would be given a CEPT Class 1 license, with full privileges on HF and VHF. Novice licensees would not be eligible for a CEPT equivalent license since most CEPT countries don't offer a license of this type.

Once the ERO formally advises the FCC of the decision, the FCC must complete the steps to implement the participation before CEPT licensing can become effective.

"We've been urging the Commission to do this since 1991," said ARRL Executive Vice President David Sumner, K1ZZ. "Now that CEPT has given the green light, we hope the FCC will step on the gas." — *ARRL Letter*

Hams help in West Coast flooding

Amateur Radio has been active in the San Francisco area, assisting emergency officials in coping with the disastrous effects of heavy rains. ARRL San Francisco Section Manager John Wallack, W6TLK, reports floods and mudslides have closed many roads, isolating smaller communities, especially along the coast.

With more rain forecast, flooding along the Russian River in Sonoma County may continue. In six canyons along the river, 400 homes are at risk of sliding down muddy slopes.

Hams were stationed in the affected areas at shelters and EOCs since the disaster started. In Mendocino, Lake, Humboldt and Marin counties Hams also were active in supporting emergency activities. Wallack says he worked at the Sonoma County EOC 06-07 February. "I had a chance to see the excellent response by the emergency Amateur Radio teams in assisting emergency officials in responding to the serious needs of our community," he said. "Amateur Radio has again proved to be a valuable resource." — *ARRL Letter*

One less VEC

The FCC reports that Hawaii's Koolau Amateur Radio Club VEC has opted to not renew its affiliation with the Commission to oversee testing of candidates for Amateur Radio licenses. — *FCC; Newsline*

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