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WORLDRADIO

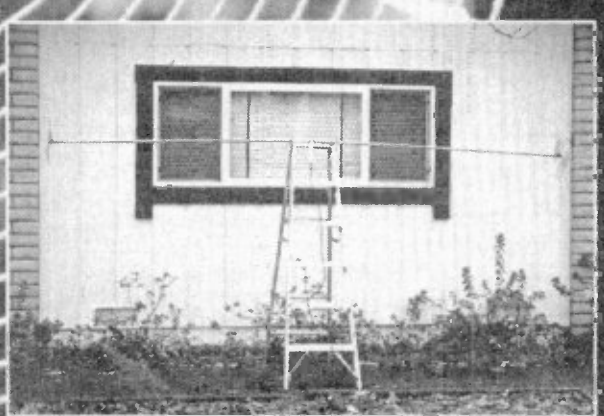
Year 27, Issue 9

March 1998 • $1.50

What is it?

Well, it isn't a BBQ grill!

See page 43



NEWSFRONT

Worldradio

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

DXCC processing status

The DXCC Desk has announced that the number of unprocessed applications at the end of December 1997 was 556 (53,337 QSLs). The desk received 5038 applications (368,887 QSLs) for endorsements and new awards during the year. This compares with 5621 applications (406,373 QSLs) received during 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 had not yet been completed. — *DXCC; ARRL Letter*

ARRL Radio Coaches

Over the years countless letters and articles have been written about Elmers, those patient, inspired souls who thoroughly enjoy bringing newcomers into the world of Amateur Radio. Now, the ARRL's new Radio Coaches program takes Elmering to new levels. Through the Radio Coaches program, you and your fellow club members can become part of a national effort to better the lives of youth using Amateur Radio with the ARRL providing the game plan!

Radio Coaches stems from the kickoff of America's Promise, the Alliance for Youth, a national campaign to improve the lives of the nations's young people and put them on a path for brighter, more productive futures.

The mission will be to give young people an ongoing relationship with a caring adult and a marketable skill through effective education, with Amateur Radio being the chief tool.

Through Radio Coaches, we want to reinforce the idea that Amateur Radio is a "sport for the brain." Ham radio provides not only a lifetime of enjoyment, but also, potentially, a lifetime career.

To get involved, contact Radio Coaches, c/o Field Services Department, ARRL, 225 Main St, Newington CT, 06111; or e-mail coaches@arrl.org — *ARRL Letter*

RFI reflector

An Internet reflector focusing on the causes and cures of Radio Frequency Interference (RFI) has been established. It will be moderated by Tim Duffy, K3LR. Discussions should be aimed at providing technical information to assist amateurs in resolving interference problems. To subscribe, send an e-mail message to rfi-request@contesting .com. The message body should include only the work "subscribe." To post a message to the group, send it to rfi@contesting.com. A digest form of this list also is available. You will receive one message per day around midday (Eastern Time) that contains the previous day's messages. To subscribe to the digest version, send a message to rfi-digest-request @contesting.com and put only the word "subscribe" in the message body. You do not need to be subscribed to both reflectors. Individuals subscribed to the digest list still may post to the RFI list address. For more information, contact Duffy at k3lr@contesting.com. — *Tim Duffy, K3LR, ARRL Letter*

Coping with your new call sign

Changing your call sign entails a bit of housekeeping. For instance, if you have a new vanity call sign and are active on packet, you should alert the sysop of your packet BBS of your new on-air identity. You'll also need to change the call sign in your packet TNC firmware and in your ham radio software (communication and logging software, for example). If your call sign is also part of your e-mail address, you'll want to update that with your Internet service provider, as well. ARRL field appointees should alert section managers too. A new call sign also can mean a new club or ARRL field appointment badge, new QSL cards, new business cards (if they carry your call sign), and maybe new license plates. The list goes on. One thing you won't have to do is let ARRL HQ know. ARRL members' call signs are automatically changed as the FCC database is updated.— *This Week in Amateur Radio, ARRL Letter*

RS-12 & others continue to provide Mode A access

If you've never operated through any Amateur Radio satellites, you're missing a whole dimension of Amateur Radio. It's very easy to get on most satellites, and Mode A is among the simplest of all. In Mode A, you transmit (SSB or CW) on 2 Meters and receive the satellite's transponder downlink on 10 Meters.

RS-12 is home to a lot of Mode A activity over North America. To operate Mode A, you transmit between 145.91 and 145.95 MHz on CW or SSB (do not attempt to use FM on these satellites), and listen for your signal between 29.41 and 29.45 MHz. The RS-12 beacon is at 29.408. Even a modest station can use AMSAT's InstantTrack software to

track satellite passes (http://www.amsat.org/amsat/catalog/software.html or call 301/589-6062). Keplerian elements also are available from AMSAT's web site.

RS-12 also now operates in Mode KA, which is 15 or 2 Meters up and 10 Meters down.

Another Mode A satellite possibility is RS-15 (uplink 145.858-145.898 MHz; downlink 29.352.5 MHz). Experienced operators say CW is very easy to hear on the downlink via RS-15. The RS-16 satellite also is designed for Mode A, but it's not yet available for Amateur Radio.

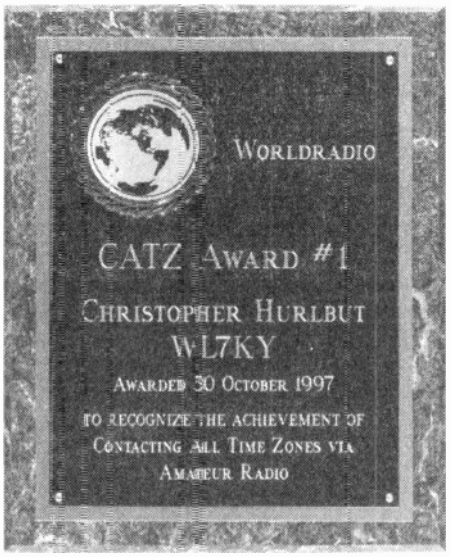
If the pass is directly overhead, you can make the bird while running just a few watts ERP (effective radiated power). Even 10W to a multi-element (gain) antenna can mean you're developing an ERP of several hundred watts. The rule of thumb is that, in no case should your signal through the transponder be louder than the satellites beacon. A satellite's transponder only has so much power to go around, and it's spread among all users. A stronger-than-necessary uplink signal will suck power from other users. — *ARRL Letter*

FCC rep claims interference fault of transmitter

An FCC representative is reported to have made some strange claims about interference and the Commission's role in solving it.

According to the *Portland SBE Newsletter,* Charlene Lagerwerff of the FCC's Wireless Telecommunications Bureau is apparently under the impression that Cross-Modulation and other products of a multi-transmitter site are solely the fault of the transmitting stations. When asked recently about the use of such remedies as circulators, band-pass filters and RF chokes, she reportedly paused a bit and continued on to argue that transmitters are putting out way too much power and interfering with everything.

At the same meeting, James Kaplan, KG7FU, pointed out to her that the ARRL and others have been pushing to make good engineering and design practice the law for receiver manufacturers for years, and that intermodulation is a site management issue, not a regulatory one. — *Portland SBE News*



The above CATZ AWARD #1 plaque now proudly adorns the shack of 14-year-old Christopher Hurlbut, WL7KY, of Anchorage, AK. Our congratulations to Chris for his remarkable achievement.

KB6LQS survives balloon failure

Dick Rutan, KB6LQS, and Dave Melton were forced to abort an around-the-world balloon flight attempt 09 January, parachuting from the craft just an hour after launch from a site near Albuquerque, New Mexico. The fabric in the propane-fueled balloon developed a flaw which forced the occupants to abandon the so-called "Global Hilton." Rutan, who won acclaim for circumnavigating the globe non-stop in an ultralight aircraft in 1991, was only slightly injured. Melton suffered a dislocated hip. Following the crew's evacuation, the balloon caromed out of control at about 100 miles per hour before it crashed into electric lines and caught fire in Texas. Rutan's flight was another in a recent series of unsuccessful attempts to circle the globe by balloon. —*This Week in Amateur Radio; ARRL Letter*

Glenn and SAREX

Contrary to other reports, Senator John Glenn is not committed to obtaining an Amateur Radio license before he flies on the space shuttle next fall.

Glenn will be flying on STS 95 in October, scheduled to carry a Shuttle Amateur Radio Experiment or SAREX station. Plans are already in the works for some crew contacts with schools in the United States during the mission.

Even if Senator Glenn has no interest in obtaining an Amateur Radio license, it would be possible for him to take to the air as a third party with the SAREX station controlled by another astronaut ham. If Senator Glenn agrees, he could become an important part of his own civics lesson from space. — *Newsline*

Congratulations to Clarence Corkins, WA9YTH,
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
March 1998

— News & Features —

— Departments —

Next month's columns will include 10-10, The Club Huddle, Computers & Basic Stuff, RFI & You, With the Handi-Hams, & YLs on the Air

Worldradio

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March 1998 Year 27, Issue 9

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

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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

Men will bow, women will curtsy and children will present bouquets of flowers. That's what happens each month to those who are announced as the latest to become *Worldradio* SuperBoosters (Lifetime Subscribers):

- **Arthur Uberti, N2XPM** Cedarhurst, NY
- **Rolan Clark, AA3G** Adamstown, MD
- **Ron McCulley, KØRJS** Wichita, KS
- **Don McDade, N5VIH** Garland, TX
- **William Abbott, WA5PPI** Hondo, TX
- **Franklin Foster, N7WMS** Hoquiam, WA
- **William Martin, KA1TIU** Elmendorf AFB, AK

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Inspired by Richard Fisher, nu6SN (the *Worldradio* QRP columnist), I went into the ARRL 10 Meter Contest (13-14 December 1997) running a gigantic five Watts while using the *Worldradio* ARC club station call sign *WR6WR*.

The radio in use (continuing the thoughts of last month's column) was an Atlas 210X which was about 25 years old. There would be no processor as found in today's radios. I wouldn't have the advantages offered by my Heil headset. The antenna was a Butternut vertical that had been on many WR ARC Field Day operations.

I knew that five Watts was way down from 1500 Watts. It's even a long way down from 100 Watts! Frankly, I went into it fearing that I would find it a futile pursuit and would eventually have to go QRO in order to make any contacts.

My first contact (Friday night, local time) was LU3FZW! Next, I worked some stations around the local area and then ZL2DX who told me, "Very good signal for five Watts." Six minutes later it was VK2ARJ. Shortly after that came VK4MZ followed by VK4EMM. My fears vanished.

How does one measure five Watts peak envelope power? A phone call to Jack Althouse, K6NY, at Palomar brought the answer. He said to go to the 20W scale (there are also the 2000 and 200W scales) on his meter and talk, watch the meter so the 4.5W bar light lights, but the 6W bar doesn't light. There are 30 bar lights on that meter resolving a spread of 20 Watts.

When VE3XN heard me answer him he said, "Did *Worldradio* put you up to that call?" I explained that this was our new club call and he replied that "it was really neat." KP3Z said, "I love your call." KB3KP said it was "a great call sign."

It can be discouraging at times when in the pileups for a domestic contact you get beaten out by mobile stations. But that's made up for when you get HH2PK. If I have any suggestions for others trying to go the QRP route, that is not to (as QRPers are often accused of) work the big loud stations only. Actually the pileups on them will be the biggest and most disheartening. I was amazed at the weak stations I would call that would snap right back with my call.

The signal levels of ZX5J and PP5UA reminded me of the 10M signals of 1959. I was in Casper, Wyoming (working for radio station KATI), and helped a junior high school student learn the theory for his ticket. By mowing lawns and taking other jobs he saved up the money for and built a Heathkit Tenner. With just a dipole, the JAs that summer (it was one of the greatest sunspot highs ever recorded) were coming in so loud it seemed that little rig was bouncing on the table. That youngster was so excited he dashed from his room to tell his parents he had worked *Japan!*

Unfortunately, on this 1997 contest the propagation gods did not smile and there were no JAs. I hope they missed us, too. My first contact on Sunday morning was LU1VV. I must admit that working this DX with five Watts seemed to be, well, "amazing" might be a good word. Back in October, I was in the CQ DX Contest with every Watt we're allowed to run and into competitive antennas. In its own way this was more fun. Running just five Watts seemed more sporting — like sailboats versus motorboats. —*Armond, N6WR*

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  - 430~450 MHz
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  - 70cm 35/20/5 Watt
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- Dual Receive (V+V,U+U,V+U)
- Crossband Repeat (bidirectional or one-way)
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- Digital Battery Voltage Display
- Auto Power Off (APO)
- Omni-Glow™ Display
- 1200/9600 bps Packet Compatible
- Alternating-Band Memory Selection (ABMS)
- DTMF Autodialer (6 Memories)
- Time Out Timer (TOT)
- Accessories: Consult your local Yaesu dealer.

*Cellular & 900 MHz Cordless Phone frequencies blocked.

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What Amateur Radio means to real Hams

MICHEL VONLANTHEN, HB9AFO

The following article originally appeared in French in the Swiss USKA (their ARRL equivalent) journal Oldman for October 1994 on page 22. It was translated to English by John Jaminet, W3HMS, because he felt that it expresses the true essence of our great hobby and wanted to share it with other Hams. The article is reprinted here in ***Worldradio*** *by permission of the author and was found in* QRP Quarterly.

Serge Perret, HB9PS, died on 09 August 1994 in Spain. He had two daughters, Sophie and Mireille, and three boys: Jean-Yves, Edouard and me — but there was no infidelity there by my mother. No, Serge was my radio amateur dad. First of all, it was he who taught me the Morse Code. Each week I returned to his shack in the basement of his home at Pully. I would sit in his shack trying very hard to understand what he was sending with his automatic key, which was one of the first for that epoch. He had an old RCA AR-88 receiver and a transmitter that he rescued from an old ship and restored to a perfect state of repair (200 watts from two parallel 813s).

I passed my first license exam in CW and theory at Lausanne in 1964 when I was 19 years old; thank you, Serge. Then it was with him that I made my first QSO on 144 MHz. A little bit before the exam, I had built an AM transmitter typical of the era with a QQE32-12 in the final and crystal controlled with an 8 MHz crystal of the famous FT-243 series surplus from WWII I was surprised by how fast the license arrived thus I did not have the time to get an 8 MHz crystal. So, it was Serge who loaned me one and with him I made my first QSO — after arranging it by telephone just to make sure. Again thank you, Serge.

Later on, it was thanks to him that I worked my first American station on 40M CW using one of the famous WWII Command Sets, which used a VFO with less than perfect stability and two 807s in parallel in the final. A dynamotor encapsulated in insulating material and a box to reduce the noise furnished the high voltage. To avoid being seriously disturbed by the noise, I put the dynamotor, which resembled a motor, on the balcony. Now it was the neighbors who were bothered by the change in the motor's whine each time I hit the key. This made it possible for the neighbors to follow the QSO by the medium of the keyed whine! Again, I had Serge to thank for the loan of the transmitter. For reception, I had modified a standard broadcast receiver by adding a tuning capacitor to the IF stage to cause it to oscillate and produce a CW beat note identical to a normal BFO beat note.

Some years later, Serge was the Vice President of the Radio Amateurs of Vaudois (a Swiss canton/state), called at that time "The USKA Section of Lausanne." It was Serge who proposed me for the President and then pushed me into office at the time of the annual meeting of the group. There were present some young Hams full of energy, project ideas, and enthusiasm that disturbed just a little the traditional calmness and austere environment of this assembly; sorry Jean-Claude (HB9UG) and thank you again, Serge.

Later, it was Serge who propelled me without transition into another world. In the space of three days, I made the decision, got the necessary vacation time, bought clothes for a

hot climate and rode on an airplane for the first time. The destination was Jeddah, Saudi Arabia, where I arrived at midnight with a winter coat under my arm in a torrid heat wave. The Customs Officer wrote something on it in chalk (probably his expression of satisfaction that I arrived)! I departed with the CCIR to reinstall their radio communications network in the north of Yemen, a country then at war. I was 23 years old. Thanks to Simone for encouraging me to go (the date of our wedding was set for just three months later) and thanks again to Serge for this unforgettable experience. Life separated us then, for me marriage, children, the job, building projects and for him the marriage, children, the job, and that terrible sickness, cancer.

We liked to see each other at Bussigny or at Ampuria-Brava where he lived for some years. He lived a life and a half in his home and with his twin 80 foot towers, a magnificent vestige of the time when boats were made of wood and not plastic purchased after much scrimping and savings.

We made a pilgrimage in his boat to Cadaques, the extraordinary village of Salvador Dali. We repaired his Drake TR7 transceiver with which we ragchewed in CW, we went to see Boris parachute jump at Ampuria, and we made plans for skin-diving and Maritime Mobile expeditions. Yet, four years ago, the doctors gave him just a few months to live. Thanks to a great poker hand, in which he had the secret, the only doctor in the world capable of doing the operation successfully did it.

There was a sort of irony in all his bravery: he didn't die of cancer but from a series of falls on his boat. On the day of his death, by chance I found myself 50 km from Serge's house trying to telephone him to tell him that I would help him defend himself from pirates on the high seas!

Serge was important in my life and the lives of radio amateurs in general since he was a member of the central committee of the USKA and also the officer responsible for relations with the IARU; he was active for a very long-time and he was a most honorable member. Life is made such that some chaps, for which we sometimes ignore the other aspects of their life, are always there at the most pivotal moments of the other person's life. Serge I found several times in this situation for me. His determination and his force in life remain always an example. When he maliciously tapped the knot of the rope hanging from the ceiling on his boat, he wanted to say: "It is me; I am the captain of this boat!" And he remained the captain until his death, with all his qualities and all his faults. I salute my friend, I liked him so well... and Serge, if you meet Him, try to intervene to see that we are left with some open frequencies for peaceful ATV.

Oldest Australian ham turns 106

Australia's oldest radio amateur, Harry Angel, VK4HA, turned 106 on 14 December. A UK native, Angel arrived in VK-land from California after a trip around the Horn as a very young sailor. A WWI veteran and radio repairman, Angel has been a ham since 1935. — *QNews; ARRL Letter*

Metroplex @ 20 years

The Metroplex Amateur Communications Association is celebrating its 20th anniversary. The club operates repeaters in the Greater New York City area. According to club president Alex Magocsi, W2OV, the club recently signed up its 803rd member, making it the second largest amateur repeater club in the country. — *Alex Magocsi, W2OV; ARRL Letter*

E-mail:
w4zc@macconnect.com

Congress to force FCC reorganization

The future of Amateur Radio could lie with a single man in Washington. He's not an FCC official, but he could have powerful influence over how the Commission operates in years to come.

In two years, the FCC could be an entirely different agency from what amateurs and others know it to be today. That's the vision U.S. Representative Billy Tauzen has, and as head of the powerful House Telecommunications Subcommittee, Tauzen could make it happen.

The Louisiana Republican lawmaker came to prominence earlier this year when his subcommittee proposed legislation essentially banning scanner radios. In an interview in the broadcast trade publication *Radio World*, Tauzen says it's time to do away with the old and bring in new ideas at the Commission. Tauzen indicates he'll give the FCC a choice: either reorganize on its own, or his committee will look into doing it for the agency.

As Tauzen sees it, the Commission's main problem is that it's organized around a 1930 government model promoting heavy federal regulation and monopolies to protect consumers. Tauzen says this is a different age, one of government opening up the marketplace to fierce competition to let consumers be in charge. But Tauzen feels the FCC still thinks and reacts the old way.

Tauzen's comments seem to suggest the Commission may be in for another round of downsizing, or perhaps even more deregulation. With Tauzen leading the push, Congress could even take the FCC out of the business of regulating the airwaves, perhaps making the agency function as a spectrum landlord instead.

What effect all this could have on the Amateur Radio service is unclear. This is a time, though, when other services pressure the Commission for more freedom. At the same time, radio amateurs ask the FCC to hold back the hands of time. Hams ask for more rules instead of fewer. They demand stricter enforcement, and they sometimes indicate that they prefer older as opposed to newer technology. What will the next generation FCC say to all of this? Those answers will evolve only as the shape of the new FCC becomes clearer.

(Ed: This is a "what might happen" despite its title; there can be many a slip between a Subcommittee proposal and a bipartisan agreement. However, it's always better to be forewarned.)

Washington Post: Amateur Radio refuses to die

A recent *Washington Post* article lumped Amateur Radio with mahjongg, model rocketry, and something called squished penny (technically "elongated" coins) as "The Hobbies That Refused to Die." The gist of the 14 November report was that there's still room for Amateur Radio and other "diehard" avocations in the age of "extreme sports and the Internet."

The section on Amateur Radio focuses on the reporter's visit to Hamfest '97 in Gaithersburg, Maryland, sponsored by the Foundation for Amateur Radio, and mentions the article on Ham radio that appeared earlier this year in *Forbes* magazine. The reporter, Dave Nuttycombe, touches on such activities as traffic handling, using HTs, and restoring older tube-type equipment. He also quotes several amateurs, including Jim Parsons, WA4LTO, and Geoff Adams, N3QFX, and there's a picture of Par-

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 05 January 1998. Note that the last Group C call sign has been issued in the First District. New Technician and General class licensees are now being issued Group D call signs.
For more information about the sequential call sign sytem, see Fact Sheet PR5000

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØGT	KIØLF	++	KCØCNK
1	AA1TA	KE1IZ	++	KB1CHB
2	AB2EQ	KG2NJ	++	KC2CWL
3	AA3QP	KF3AT	++	KB3BZY
4	AF4HM	KU4NR	++	KF4VIK
5	AC5OQ	KM5NZ	++	KD5DAE
6	AD6EF	KQ6TW	++	KF6PBV
7	AB7XB	KK7LM	++	KC7ZYZ
8	AB8BT	KI8EV	++	KC8JBN
9	AA9VI	KG9MH	++	KB9RXH
N. Mariana Is.	NHØB	AHØAY	KHØGV	WHØABI
Guam	++	AH2DF	KH2TA	WH2ANV
Hawaii	KH7W	AH6PF	KH7HL	WH6DEL
Amer. Samoa	AH8P	AH8AH	KH8DL	WH8ABF
Alaska	ALØH	AL7QW	KLØLM	WL7CUO
Virgin Is.	++	KP2CM	NP2JW	WP2AIJ
Puerto Rico	NP3S	KP3BE	NP3TN	WP4NNN

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

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Thank you!

sons at a Ham station. Parsons told the reporter that part of Amateur Radio's appeal to him is the challenge that's lacking on the Internet.

Some Hams would balk at the article's overall premise that Ham radio (he calls it simply "Ham") is among the hobbies that have fallen out of fashion and are "now carried on by a valiant few." But Parsons, a graduate of Virginia Tech and an alumnus of its K4KDJ club station, said this week that the article sparked a bit of interest in the DC area. "Reaction has been great. We've gotten a few calls," he said.

The article mentions The Vienna Wireless Society, the Mount Vernon Amateur Radio Club and the Columbia Amateur Radio Association as contact points and gives a plug to *Auto Call*, the official journal of the Foundation for Amateur Radio. The circulation of the *Washington Post* Sunday edition is more than 1.1 million. — *ARRL Letter*

(Ed: Remember the saying, "publicity is publicity, good or bad. Just be sure to spell my name right")

Amateur chief FCC tech

Dale N. Hatfield, WØIFO, has joined the FCC as chief technologist in the Office of Plans and Policy. Hatfield returns to the FCC and government service after a 15-year break, during which he founded and operated a telecommunications consulting business in Boulder, Colorado. Previously, Hatfield served as Acting Assistant Secretary of Commerce for Communications and Information and as Deputy Administrator of the National Telecommunications and Information Administration.

During the 1970s he served as chief of the Office of Plans and Policy at the FCC and also held positions in the Office of Telecommunications Policy in the White House. FCC Chairman William Kennard announced the appointment 08 December. — *FCC, ARRL Letter*

Canadian delegation intiative scrapped

The Canadian government has decided not to delegate any responsibility for Ham radio licensing to a nongovernmental service company affiliated with Radio Amateurs of Canada (RAC). The announcement 28 November by Industry Canada, that country's equivalent of our FCC, caught many Canadian Hams by surprise — including some of those who had been involved in the process. The decision, announced at a meeting of the Amateur Delegation Working Group, concluded a four-year effort at collaboration between Industry Canada and the RAC. According to the RAC, "Industry Canada had decided to terminate the delegation initiative and to retain the administration of the Amateur Service in house."

Last February, the delegation effort stalled at the eleventh hour. The nongovernmental organization, known in English and French as Amateur Radio Administrative Services/Services Administratifs Radio Amateurs (ARAS-SARA) was to assume some Amateur Radio administrative responsibilities for that country's 47,000 radio amateurs. In making the IC decision public, RAC said that it "deeply regrets Industry Canada's unilateral decision" to end the delegation project.

As announced at the same meeting, Industry Canada began polling a cross-section of Canadian Hams to get their views on the Ham radio administration with an eye toward possible changes. The Kitchener-Waterloo Amateur Radio Club is conducting its own poll on the Internet (see http://www.kwarc.org) using the same questions plus an open-ended question. — *ARRL Letter*

"PEARL" offers CW training on 2M

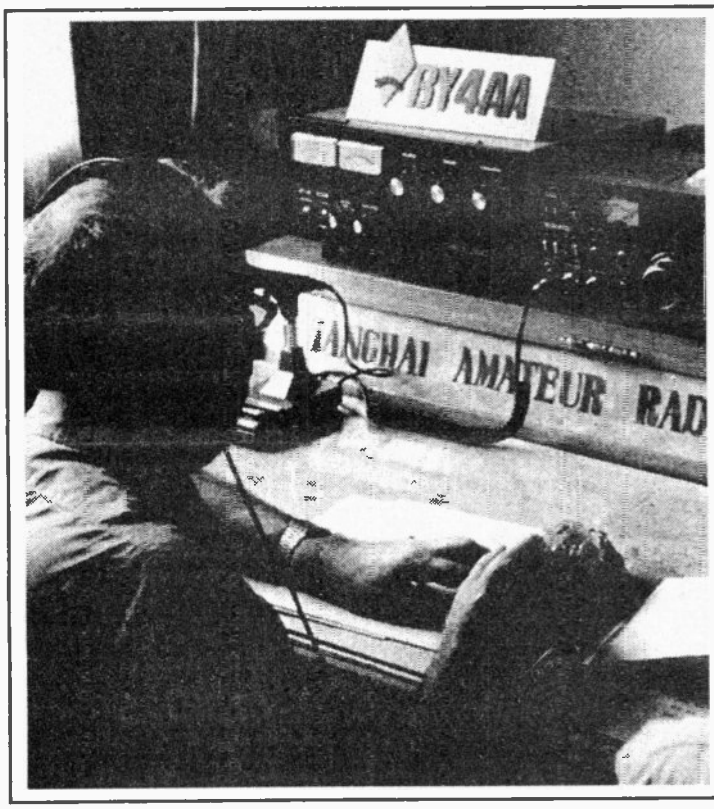
If you live in Putnam County, New York, and want to increase your code speed, read on. PEARL, the Putnam Emergency Amateur and Repeater League is hosting CW training sessions every Tuesday and Sunday at 9:00 p.m. on the WA2AWG repeater. According to Joe McGowan, N2BDW, the repeater is on 145.13 MHz and any amateur interested in improving his or her code is welcome to join the net. — *Hudson Division Loop, N2BDW, ARN*

New UK VLF Amateur band

Amateurs in the United Kingdom are looking forward to another new very low frequency band. The Radiocommunications Agency has told the Radio Society of Great Britain that it hopes to release the 136 kHz band to all U.K. Class A licensees early in 1998. As the 73 kHz band opened there last year, the new allocation will be a sliver-sized allocation. At only 2.1 kHz total bandwidth, it will be slightly smaller than the 2.8 kHz available at 73 kHz. The RSGB says the band will likely run from 135.7 to 137.8 kHz. —*ARN, RSGB/GB2RS*

DXCC 2000

The DXCC program will see some changes with the approval of new DXCC 2000 rules. The big change primarily affects newcomers to the program. In the future new countries that are approved but later lose their qualifications to be considered a country will be deleted from the list. This only affects future DXCC recognition. — ARRL, Newsline



Buddy Robins, W2KN, operates BY4AA from China

Calling "CQ" from China

BUDDY ROBINS, W2KN

The thought had been with me the day in 1975 when I walked down the stairway of the Air France plane we had boarded in Tokyo and stood on Chinese soil for the first time. Along with the anticipation of all we were to see and experience in the ensuing weeks, the enormity of the fact that my wife and I were the first in our industry to be invited into the country, and the intriguing possibility of getting on the air from this exotic land, was ever on my mind!

As an importer of children's knitwear I had been travelling through the Far East for many years, pirimarily Taiwan, Korea, Japan and Hong Kong, so when the invitation arrived for the visit to the People's Republic of China we felt like kids in a candy shop, and the ensuing weeks proved to be anything but disappointing. At every opportunity I would inquire about the possibility of Amateur Radio surfacing from the People's Republic, from our hosts at Chinatex, from our commercial attache in Peking, and even from George Bush, who was in charge of our liaison office in Peking in those days.

The answer, of course, was always one of either complete ignorance, at best, or complete pessimism at worst, of such a thing ever occurring. In each of my ensuing trips from 1975 through 1978 I would repeat the inquiry with the same inevitable result. As luck would have it, when the news began to trickle through of Amateur Radio operations limited to city wide communications and then of the first visits made by non-Chinese to BY1PK (in Peking) my trips to China had been discontinued, and my dreams of actually operating from the People's Republic of China had faded into oblivion.

Then early in 1984 the "impossible dream" became a possibility once more. A return trip to China to visit old friends was indicated, and I was to go in the company of a Chinese gentleman with whom I had developed a fast friendship. (I had met him in Nanjing in 1978) To top it all off, my twenty-eight year old son Donald, KA2MLM, would be able to accompany me. What could be more inviting? The return trip was prompted by the resumption of the need for importing, which had become more and more apparent.

Obviously the first step in the planning of such a junket from the "Ham radio" point of view would be the contacting of the authorities at the stations in Peking and Shanghai, and the securing of permission to at least visit the stations, and if possible do some limited operating.

One of my friends, Gene Black, W2LL, suggested that I contact Barvey McCoy, W2IYX, editor of the LIDXA, (the Long Island Dx Assoc.) bulletin. He was kind enough to supply me with the names and addresses of the chief operators of both BY1PK and BY4AA, the Ham stations of Peking and Shanghai respectively. I wrote to each of these gentlemen mentioning my ten year background in importing from their country, my six visits to their country, and the fact that many of the officials of the Chinatex Group had visited the States in the last several years, had been guests in our home, and had spoken over my station to Hams all over the world, and had thus had their first introduction to the world of Ham radio.

I don't remember just who or what prompted me to get in touch with

Bill Bennett, W7PHO, but it proved to be an inspiration. He reminded me that it was Pat West, W7EA, who had led a group including, K7HO, KC7CF, and K7LAY in September of 1981. It was Pat West, who after an introductory phone call supplied me with the necessary forms and other information without which I would have been spinning my wheels.

When Donald and I left New York on Sunday, May 20th, we had received no answer of any kind from BY1PK, but did have an encouraging note from BY4AA welcoming us to Shanghai, and advising us to contact our hosts, telling them where to get in touch with the station directly. We arrived in Peking on Monday, May 21st, but it was not until Wednesday, May 23rd, that we had the time to make the effort to contact the station, and we were due to leave on Thursday for Nanjing.

Seated second from the left is Donald Robins, KA2MLM, Mr. Ting is in the center, and Buddy Robins, W2KH, is on the far right.The first and fourth gentlemen are unidentified.

Having arrived without a telephone number for the station,and with only a box number for the address, it looked very much like a modern miracle was in order if we were to make contact before leaving the city. We were staying at the Great Wall Hotel, and it was due to the patience and resourcefulness of one of the desk clerks that a telephone number was finally secured (it took him one and a half hours to get it!), and that it would be possible for us to visit at four p.m. that afternoon — and of course an address was supplied.

It took the taxi driver forty-five minutes to find the place, during which time my son and I acquired stiff necks from looking up at the building tops to see if we could find the TH7DXX (a beam antenna which we had been told adorned the particular building where BY1PK was head-quartered). Finally it was spotted, and with great anticipation we ascended the stairs to the top floor, and were greeted by a welcoming committee who ushered us into a sitting room where we were seated and in traditional Chinese fashion and entertained with tea and polite conversation, our Chinese companion doing the translating for us.

All during this period I was in a state of shock, hardly believing that I was at BY1PK, and not at all certain that I would be given permission to operate. The only encouraging sign seemed to be that they had received my letter a few days before our arrival.

At this point some other folk came into the room, and one of them turned out to be Anthony Sariti, WA3WAQ, attached to the U.S. Embassy in Peking, who was by chance visiting the station. The chief operator, Mr. Tong, then smilingly ushered us into the next room, and suddenly it appeared that I was to be allowed to operate!

It's difficult to express how I felt when I sat down at the radio desk and was offered a pair of headphones, and motioned towards an automatic key and the Kenwood 930 sitting behind it. Ten years of anticipation, and suddenly, I was going to sign a Chinese call! I think the exhilaration could only have been matched by what I experienced sixty years earlier at my very first QSO!

After receiving some additional briefing from my host I tuned around twenty meters, knowing that it was too early in the morning for any propagation from the east coast (U.S A), made one hopeful call to N4UB who was expecting me at some time or other, and then proceeded to make several Japanese and one Russian very happy by giving them BY1PK. It was very exhilarating and despite the fact that I completely forgot to shoot the movies that I had carefully planned for, I felt that I was truly in "Ham heaven!" Luckily Donald (KA2MLM) had a 35 mm camera and managed to get some excellent photos of the station and the station complement!

We ended the session by inviting the school director, Mr. Yang, and chief op, Mr. Tong, to have dinner with us, and then took a cab over to the Peking Hotel, and with the help of my Chinese companion managed to order a sumptuous banquet for all of us. It was memorable !

That afternoon when we had returned to the Great Wall Hotel it suddenly occurred to me that while I had received a "welcoming Letter" from Shanghai, I had not sent applications to that city similar to the one I had mailed to Beijing which undoubtedly had made the granting of permission to operate feasible, and without which, no matter how sympathetic the Chinese might have been to my cause,I could not have gotten within fifty feet of the key! Luckily I had been farsighted enough to make several copies of the blanks which I had first received from Pat West, hurriedly filled additional ones for my son and myself and had the hotel post them to Shanghai.

We left Beijing for Nanjing on Friday, May 25th, one day late because of a cancelled CAAC flight on May 24th, and spent two delightful days at the Jinling Hotel, a newly constructed edifice,which was so beautiful and luxurious that it was difficult to believe that it was in Nanjing

and not in New York, or any other western metropolis. So outstanding a structure is it that the Nanjing residents cue up with regularity at its gates, there to pay the sum of a few cents to have a guide take them all through the hotel from top to bottom and everything in between. They are rightfully impressed as the hotel is magnificent !

On Saturday we left for Suzhou by train, and a few hours later found ourselves in this ancient city, where we had not been before, and which is world famous for its beautiful gardens and its silk and embroidery skills. The food is noteworthy as well, and Donald and I continued to amaze our hosts with our ability to consume record-breaking quantities of Chinese food and to still remain mobile (to a point!).

We arrived in Shanghai on Wednesday, May 30th, and in the midst of conducting our business with each of several departments, managed to have our hosts in this city attempt to contact the folks at BY4AA, to see if we could arrange a visit. It took the better part of a day to get through to the people at the station, and an appointment was made for Thursday afternoon, May 31st. Again the by now familiar chore of finding the building housing the station, this time only a half an hour, and again a repeat of the Beijing experience (spotting the beam on the roof... this time a TH6DXX !!).

We were ushered upstairs and seated in an ante-room, much the same as the Beijing arrangement, and met Mr. Xu (signature-XURU!) and Madame Chen, and the orientation process (with tea !) began once again. As the minutes went by, and the discussion between our hosts and Mr. Xu continued, I be-

THIS NOTE SAYS: "PLEASE PLACE MAGMOUNT ATOP PARKED AUTO SO I CAN RADIO FOR HELP !"

wouldn't have given a nickel for my chances of having more than a polite tour of the station, with the ensuing frustration of being so close but yet so far.

Suddenly my Chinese companion turned to me, and with a broad grin said "Let's go into the radio room and see whom you can talk to!" I still was full of disbelief, but when I saw the big smile on Mr. Xu's face I knew that somehow it had happened, and I was going to go on the air from BY4AA !

This time I remembered to give Donald the assignment of taking movies of the station,and then I was ushered to the console, seated before still another TS930, and a straight key (I think more to test my mettle as a CW operator than anything else), and with the TH6DXX on the States, managed about six stateside contacts, including one in Hawaii, plus a string of Japanese and one Russian. I got as far east as K5BDS, Robby, and the others were K6NA, W7TS, K7ZR and K6NO. (The Hawaiian contact was with KH6KK.) Not a sign of the east coast unfortunately, but all in all it was the same gan to get the distinct impression that all was not going well. Sure enough, after some questioning on my part, it developed that as much as our courteous and friendly hosts would have liked to give me the green light to operate, my application had only arrived that day, and there had been no time to get it approved by the proper parties.

My face fell, almost to the floor, and it must have made quite an impression on my Chinese friends, both the ones I knew and the ones I had just met, for a considerable discussion followed. I was now prepared to accept my fate, and big thrill all over again.

We celebrated by taking Mr. Xu and Madame Chen plus our local Shanghai contingent out for probably the best Chinese meal we had had since we arrived in the country and believe me when I tell you that it had to stack up to some pretty fierce competition.

Beijing and Shanghai...not bad for the first Chinese DX venture. it's been quite a few years since this first experience with overseas Chinese hamming...truly unforgettable !

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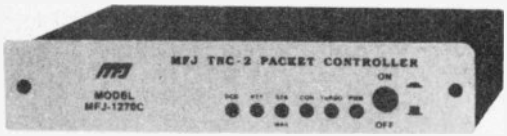

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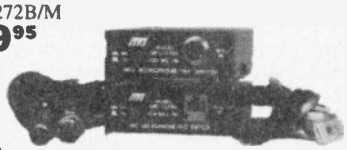

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Icom[1]/Yaesu/ Radio ShackHTs	MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood[2] HTs	MFJ-5026	MFJ-5026YV	MFJ-5026X	MFJ-5026
Yaesu 8-pin	MFJ-5080	MFJ-5080YV MFJ-5080YH	MFJ-5080X	MFJ-5080Z
Icom[3] 8-pin	MFJ-5084	MFJ-5084YV MFJ-5084YH	MFJ-5084X	MFJ-5084Z
Kenwood/Alinco 8-pin	MFJ-5086	MFJ-5086YV MFJ-5086YH	MFJ-5086X	MFJ-5086Z
Yaesu 8-pin modular	MFJ-5080M	MFJ-5080MYV	MFJ-5080MX	MFJ-5080MZ
Icom[4] 8-pin modular	MFJ-5084M	MFJ-5084MYV	MFJ-5084MX	MFJ-5084MZ
Kenwood 8-pin modular	MFJ-5086	MFJ-5086MYV	MFJ-5086MX	MFJ-5086MZ
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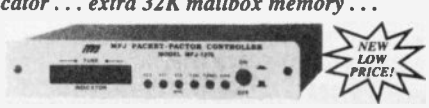

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You can *selectively* remove unwanted tones using the two *manually tunable* notch filters --an MFJ exclusive. Knock out unwanted CW stations while you're on CW.

Adaptive Noise Reduction

Noise reduction works in all filter modes and on all random noise -- white noise, static, impulse, ignition noise, power line noise, hiss.

The LMS algorithm gives you up to 20 dB of noise reduction. Noise reduction is adjustable to prevent signal distortion.

15 *pre-set* filters -- factory set or you custom program

You can select from 15 *pre-set* filters. Use for SSB, AM, CW, packet, AMTOR, PACTOR, RTTY, SSTV, WeFAX, FAX or any mode.

If you don't like our pre-set filters, you can program your own -- *an MFJ exclusive!* Save center frequency/bandwidth, lowpass/highpass cutoffs, auto/manual notch, noise reduction -- all filter settings -- in 10 *programmable* filters.

Plus more . . .

A push-button bypasses your filter -- lets you hear the *entire* unfiltered signal.

2½ watt amplifier, volume control, input level control, speaker jack, PTT sense line, line level output. 9½x2½x6 inches.

Plugs between your transceiver or receiver and external speaker or headphones. Use 12 VDC or 110 VAC with MFJ-1315, $14.95. Cable Pack, MFJ-5184, $7.95, includes receiver cable, DC cable, 2 open-end TNC cables.

New Features

MFJ's exclusive tunable *Spotting Tone*™ -- accurately tunes even the narrowest CW filter.

MFJ's exclusive *Adaptive Tuning*™ -- tuning rate automatically becomes finer as you narrow bandwidth -- makes narrow filters easy-to-use.

MFJ's exclusive *FilterTalk*™ -- sends precise filter settings in Morse code.

Has automatic notch with *variable* aggressiveness, new quieter 2½ watt audio amplifier, new speaker switch keeps phones always active.

Manual and automatic notch can be used together. Noise reduction, automatic notch and tunable manual notch can be used when a custom filter you saved in memory is selected.

You get an accurate easy-to-use input level indicator, improved manual notch in the CW mode, adjustable line level output, more Mark-Space frequencies and baud rates for data filters and auto- matic bypass during transmit for monitoring CW sidetone, voice or data by sensing the PTT line.

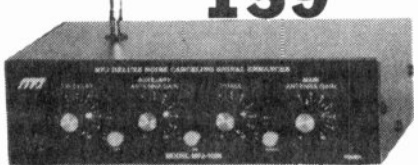
Firmware Upgrade

For MFJ-784, order **MFJ-55, $29.95.** Gives you most features of the MFJ-784B.

NEW! 60 dB Null *wipes out* noise and interference

MFJ-1026

$159.95



Wipe out noise and interference *before* it gets into your receiver with a 60 dB null!

Eliminate all types of noise-- severe power line noise from arcing transformers and insulators, fluorescent lamps, light dimmers, touch controlled lamps, computers, TV birdies, lightning crashes from distant thunderstorms, electric drills, motors, industrial processes . . .

It's *more effective* than a noise blanker because interference much stronger than your desired signal can be completely removed without affecting your signal.

It works on *all modes* -- SSB, AM, CW, FM -- and frequencies from BCB to lower VHF.

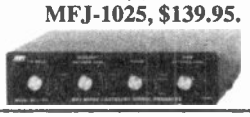
You can null out strong QRM on top of weak rare DX and then work him! You can null out a strong local ham or AM broadcast station to prevent your receiver from overloading.

Use the MFJ-1026 as an *adjustable phasing network*. You can combine two antennas to give you various directional patterns. You can null out a strong interfering signal or peak a weak signal at a push of a button.

Easy-to-use! Plugs between transmitting antenna and transceiver. To null, adjust amplitude and phase controls for minimum S-meter reading or lowest noise. To peak, push reverse button. Use built-in active antenna or an external one. MFJ's exclusive *Constant Amplitude Phase Control*™ makes nulling easy.

RF sense T/R switch automatically bypasses your transceiver when you transmit. Adjustable delay time. Uses 12 VDC or 110 VAC with MFJ-1312B, $12.95. 6½x1½x6¼ inches.

MFJ-1025, $139.95. Like MFJ-1026 less built-in active antenna, use external antenna.



Add DSP to *any* Multimode

MFJ-781

$129.95

Add "brick wall" DSP filtering to *any* TNC or multi-mode data controller.

Copy signals buried in noise and QRM.

Under severe QRM, DSP greatly improves copy of Packet, AMTOR, PACTOR, GTOR, Clover, RTTY, SSTV, WeFAX, FAX, CW -- nearly any digital mode. Automatic gain control, ON/OFF/Bypass switch. Plugs between transceiver and multi-mode. Uses 10-16 VDC or 110 VAC with MFJ-1312B, $12.95. 4½x2½x5in.

DSP for *your* MFJ-1278/B

MFJ-780

$99.95

Plug a MFJ-780 "brick wall" DSP filter into your MFJ-1278/B multi-mode and you won't believe your eyes when you see solid copy from signals completely buried in QRM! MFJ-1278/B *automatically* selects the correct DSP filter for Packet, AMTOR, Pactor, RTTY, ASCII, FAX, Color SSTV, Navtex or CW.

Plug in a MFJ-780 and copy signals that other multi-modes can't. Some soldering needed.

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Update on Nick, UXØZZ

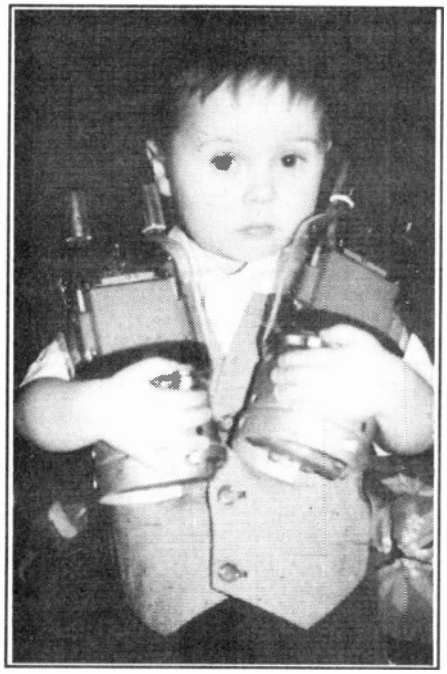
BY MICHAEL PILOTTI, N3IRZ

People familiar with my friendship with Nick Bortnik UXØZZ often ask me how he is doing. Because ***Worldradio*** readers were so instrumental in helping to get him to the U.S. for medical treatment, we thought it was time to update readers. Nick Bortnik, UXØZZ, is a Ukrainian Ham brought to the U.S. by his QSL manager, N3IRZ, and The MidAtlantic ARC in 1996 for diagnosis and treatment of a seizure disorder (see ***Worldradio*** cover story Sept. 1996).

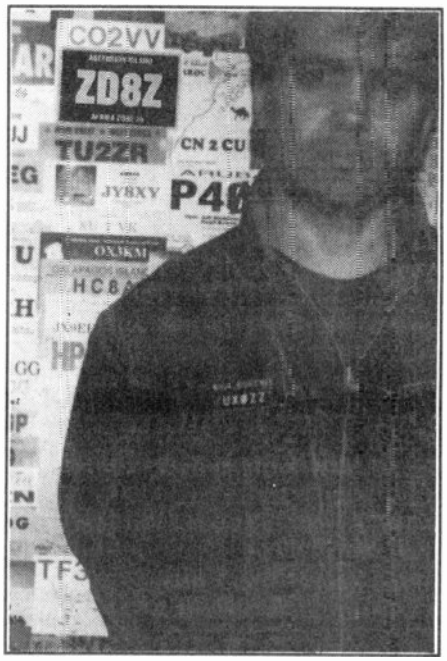
Nick's seizure disorder was diagnosed as "Post-trauma epilepsy" resulting from a compressed skull fracture and head injury he received in a skiing accident as a teenager. We regularly air mail him Tegretol/ Carbamazapine, an anti-seizure medication he must take three times per day. This medication is not available in Ukraine and we are able to obtain it at cost from a local pharmacist who is also a Ham. Although his health has improved and his seizures are much less frequent than before, he has still suffered several small seizures in recent months. Unfortunately, a simple blood test to determine the level of medication in his bloodstream is not available anywhere in the rural area where he lives so doctors here in the U.S. try to estimate the proper dosage. We are planning to bring Nick back to the U.S. for follow-up treatment and additional tests sometime in the future.

Nick lives in a rural area of Southeastern Ukraine, near Nikolaev and the Black Sea. Most people, including Nick and his family, have few modern conveniences that we take for granted here in the U.S. Although Nick is a skilled industrial electrician, he has been unable to find a job. Unemployment in his region is as high as 70%! I regularly ship him large packages via a Soviet package service for $1.00 per pound. Items that are donated and collected, such as jeans, American T-shirts, shoes, TANG orange juice etc., are in big demand and can be sold for money if needed. Until we sent several pairs of shoes for his wife Nina, she only had one pair of shoes that she shared with her mother!

Nick and his wife Nina have two beautiful little boys, Nick, Jr., 4 and Alex, 1. Due to Nick's love of Amateur Radio, I'm sure his sons are destined to be future Hams! The MidAtlantic ARC sent Nick home with an old Yaesu 757GX and an antenna tuner. This rig was only the second



solid state Ham transceiver known to exist in Ukraine! All Ham equipment there is home-brew. Unfortunately, the radio broke after several months of use and after much networking, we found a fellow coming to the U.S. who was able to carry the radio back to the U.S. for repairs. Shipping it was not feasible due to the costs as well as theft in the postal system. Unfortunately, the radio is beyond repair and Nick, an avid DXer, is presently limited with his HF operating. I plan to help replace this radio with another solid state HF radio and possibly also buy him a used triband beam antenna.

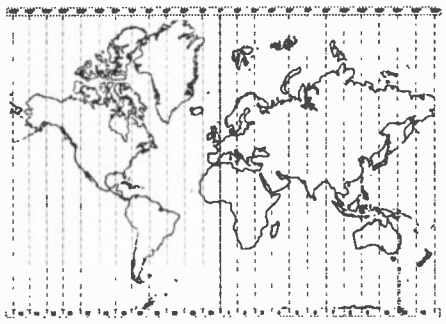


Nick Bortnik, UXØZZ, and at left is Nick, Jr., clutching two GU-81M amplifier tubes

Having Nick stay with my family for three weeks last summer was an incredible and rewarding experience for everyone. The best analogy I can use is that it was much like having a time traveler visit us from 100 years ago! Most people in the U.S. cannot begin to appreciate the wealth, opportunity, modern conveniences, staggering amount of choices and our healthy and competitive economy that simply doesn't exist in many other places in the world. Nick was overwhelmed to say the least but was most impressed by the friendliness, openness, generosity and genuine caring attitude of the American people. On many occasions he was at a complete loss as to how to express his deep appreciate to the many people who helped make this project happen. Those of us lucky enough to be U.S. citizens, truly do live in the greatest country in the world!

A special thank you to the many ***Worldradio*** readers who previously contributed to help with Nick's airfare and medication purchases. If any ***Worldradio*** readers are able to help financially, or by donating or selling very reasonably, a used solid state HF transceiver or triband beam antenna, or wish to make a donation to his medication fund, please write to the Mid-Atlantic ARC, P.O. Box 352, Villanova, PA 19073 or to N3IRZ at callbook address.

Awards



100 Nations Award

In an effort to encourage personal communications among peoples around the world via Amateur Radio, ***Worldradio*** offers the *Worked 100 Nations Award* to those confirming two-way amateur communications with permanent stations in 100 distinct countries having a permanent, native population.

The purpose of the ***Worldradio*** *Worked 100 Nations Award* is to demonstrate the unique opportunity Amateur Radio offers for communications between international borders to further worldwide understanding.

The *W-100-N* is not a radio sport award as such, but a token of achievement in communication. At the same time, it offers all Amateur Radio enthusiasts several features not found in other awards.

1. W-100-N virtually eliminates the need to work geographic areas heard only during DXpeditions. Almost all national entities have amateur stations consistently on the air.

2. W-100-N, then, will be of perennial interest. The advantage to those stations having worked a national entity long absent from the air will be minimal.

3. W-100-N is difficult to achieve, yet within reach of moderately well-equipped stations whose operators utilize good communication skills.

Rules

1. The *Worked 100 Nations Award* is available to any licensed Amateur Radio operator who can prove confirmation of two-way communications with government-authorized Amateur Radio stations in at least 100 different nations of the world.

2. No contacts with stations using reciprocal calls will count toward achievement bears such recognition. All modes and bands may be used.

6. The application should include the following:

a. Letter requesting W-100-N.

b. List of contacts in alphabetical order by prefix showing nation, station call, date, band and mode.

c. A signed statement by two other licensed radio amateurs, General class or above that they have inspected the required QSL cards.

d. A fee of $5 to cover the cost of the award.

7. All applications and requests should be addressed to:

W-100-N Award Manager
Worldradio
2120 28th Street
Sacramento, CA 95818

8. There are no special endorsements to this award; however, endorsements may be made if the

Upon approval of an application for W-100-N, a certificate will be issued and the issuance of the award will be noted in a future issue of ***Worldradio.***

DARA scholarships

The Dayton Amateur Radio Association is accepting applications for its annual scholarship program. Applicants must be Amateur Radio operators and graduating high school seniors. Eight scholarships of up to $2000 apiece will be awarded. To request an application, send an SASE to DARA Scholarships, 45 Cinnamon Ct., Springboro, Ohio 45066-1000. The application deadline is 01 June 1998. — *Stan Kuck, NY8F, ARRL Letter*

— SPECIAL EVENTS —

MACON CHERRY BLOSSOM FESTIVAL

The Macon ARC will operate W4BKM 1500-2300 UTC Saturday, 21 March 1998 at the 16th annual Cherry Blossom Festival in Macon, GA. Phone 7.235, 14.240 and 21.335; CW 7.135, 14.035 and 21.135. For certificate send QSL and a 9x12 SASE to Macon ARC, P.O. Box 4862, Macon, GA 31208.

L'ANSE CREUSE ARC OPEN HOUSE

The L'Anse Creuse ARC will hold its annual Amateur Radio open house 07 March at the Macomb Mall in Roseville, Michigan, to introduce Amatuer Radio to the public. They will operate station N8LC from 1500 to 2100 UTC, and will invite visitors on the air. Voice operation will be in the general portion of the 40- and 20-meter bands. Help the club in welcoming these potential newcomers to our great hobby. Listen for them on or near 7230 on 40M, and 14.330 on 20 Meters.

Anyone who contacts the station can receive a commemorative certificate. Send a QSL card and SASE to N8LC, c/o Diane Scalzi, 21621 Briarcliff, St. Clair Shores, MI 48082-1299. Please include a 9 x 12 inch envelope with 55¢ postage if you don't want your certificate folded. Otherwise, send a business-size envelope with 32¢ postage.

PHILIPPINES CELEBRATE

Across the Pacific, the special event callsign 4G5ØN has been issued to the Amateur Communications and Emergency Service Club of Naga City, in the Philippines to celebrate Naga City's 50th charter anniversary. This call will be in use from 01 January to 31 March — *Newsline*

WINTER OLYMPICS AMATEUR RADIO STATION

An official special events station from the 1998 Winter Olympic Games in Japan will use the call sign 8NØWOG — for Winter Olympic Games, operating in Nagano 07-22 February.

Any visitor holding an Amateur Radio license in their home country may operate 8NØWOG, 9:30 a.m.-9:30 p.m. local time. The only ID required will be a current, valid Amateur Radio license. — *IARU, Newsline*

Off the air

Seeks CY9R QSL

Has anyone been able to get any cards from VE3MRN for CY9R? I've sent several SAEs and dollar bills (2) in each of the several I've sent, but have never received any response, nor have I had any returned. I've also sent via buro with no response. There appear to be two different persons who have held the call. If anyone has any info on the call CY9R, I'd like to hear from them. I need this card for a new country for DXCC. Thanks very much.

GARY McCROREY, AL7O
HC67 Box 660
Anchor Point, AK 99556
e-mail: al7o@hotmail.com

License plate address labels

I was very impressed with the December cover of ***Worldradio.*** I also have my call sign on my van and I have my call sign on my return address labels. The address labels are available for the plates of all 50 states, and also can be ordered with a photo (such as your hamshack) above your name, call and address. The company is Colorful Images, 2910 Colorful Ave., Longmont, CO 80504-6214; Call 800/458-7999 to request a catalog.

WALT MARTIN, KE6JIT
Cloverdale, CA

Thanks to Marconi

I read the Jan. '98 QCWA column with great interest. Why has it taken so long for us to realize that Marconi was using HF? I challenge the assumption that "conventional spark transmitters do not produce harmonics." The spark itself, because of extremely fast rise and decay times, produces an infinite number of frequencies higher than that used to energize it. it is the LC circuit that determines which frequencies are fed to the antenna. We know that spark transmitters were notoriously widebanded, which is why they were later banned.

All of them were homebrew, so every one was different. It is probable that many had the right combination of stray capacitances to couple not only harmonics but also many other HF frequencies into the antenna. The circuit on page 54, at HF, looks very similar to the output circuit of the SPC transmatch shown in the ARRL handbooks and antenna books, and may have beenone of the first spread spectrum transmitters. It certainly is not a low-pass filter. All RF not coupled into the antenna is reflected back toward the spark gapwhere it causes more arcing. No energy is lost: A portion is converted into heat, light and vibration of the machinery and its surroundings, some is used to ionize air for the spark (the ions then recombine, producing more heat and air containing traces of ozone and oxides of nitrogen), and all the rest is radiated as RF of various frequencies, including HF.

Many great advances have been made quite by accident with little or no understanding of the underlying principles involved. Man used fire for thousands of years before he understood oxidation. We should give thanks that neither Marconi, nor anyone else knew he was using HF, otherwise we Hams may not have been assigned the supposedly worthless wavelengths of 200 meters and down.

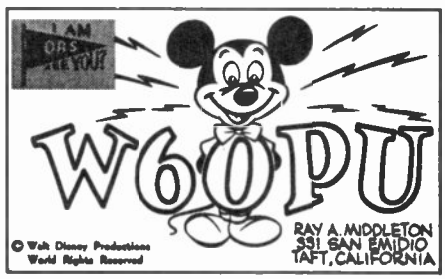
JOE STERN, KI4QG
Cincinnati, OH

Morse code

Thank you for printing the letter by Dan Sherman, KB7DGW, in the Jan. '98 issue. I always knew there was good reason to eliminate the Morse code requirement from Ham radio. In fact, I took Mr. Sherman's logic one step further and I realized that with the advent of satellite communication and the internet, Ham radio should now go the way of the model T. Hiram Percy Maxim must have had it all wrong. Let's put Morse code and Ham radio where it belongs, in the past, dididdit didit.

Morse code and Ham radio forever,

JONATHAN FIELD, AA1PG
Rochester, NH



QSL card with a story

This unique QSL card of Ray A. Middleton, W6OPU, came about in a quite unusual way. In the early 50s, Ray saw a cartoon in whichMickey Mouse was an Amateur Radio operator, and on the screen was Ray's call sign, W6OPU. Amazed, he called the Disney studios to inquire how they used his amateur call sign. They replied they just made it up, not realizing it was an actual call. As recompense, the studio designed this handsome Mickey Mouse card exclusively for Ray's use.

Patrick Donahue, W7UMZ, then at Myrtle Point, OR, worked Ray on CW 23 Feb. 1954 and learned of the story of his QSL card. Pat reported the story on our Dipsea net recently, and I thought it might be of some interest to your readers. Gosh, postage on the card was only two cents just 44 years ago. The ARRL sticker, "I am ORS are you?" is also intriguing.

(Please turn to page 69)

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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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See our Web site for more information. (www.hamvention.org)

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Saturday Luncheon	_____	@ $10.00	= $ _____
Credit Card Service Charge	_____	@ $1.25/ticket	= $ _____
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* $20.00 at door **$35.00 at door, if available

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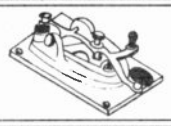


LARRY McDOWELL, KA6NSQ

Larry was born on 2 January 1905 and became a Silent Key on 30 October 1997 in Long Beach, California.

He got his first Ham license in Ohio in 1921 at the age of 16. After moving to Los Angeles and misrepresenting his age, he aquired a commercial radio license and went to sea as "Sparks" on a coastal freighter at the age of 17.

He rebuilt AM broadcast station KFON in Long Beach which later became the well known KFOX.

Later, he built the first broadcast station in Baha California, Mexico, for the governor of that state.

He conceived, built and contributed Radio Central to the Southern California radio broadcast industry.

Larry pioneered the use of radio in the motion picture industry in making sea films. Via radio the director was able to give instructions to the actors aboard a ship some distance away.

During WWII Larry joined the US Coast Guard. At the end of the hostilities he was discharged with the rank of Commander.

Larry's life was built around radio and the sea. During his lifetime he served as Commodore of several Southern California yachting organizations.

Larry was a true radio pioneer. He was active in Amateur Radio until his passing. He will long be remembered by his many Ham friends. — *Ken Johnson, W6NKE*

COL. BURR ADAMS, W5SHP

Again I am the bearer of sad tidings and advise you of the passing of my good friend, Col.Burr E. Adams, W5SHP. Burr attended South Dakota State University in Brookings, graduating in 1924 with a degree in Civil Engineering. He also received a commission in the U.S. Army. He was a veteran of WWII, Korea and the Viet-Nam era. Burr was Commanding Officer of the Corps of Engineers of the U.S. Army in Hawaii at Schofield Barracks. This is where I met him when I was U.S. Army MARS Director in 1966-68. Burr was very active in the MARS system and helped us in many ways when we needed it. He was also a member of the Masonic Lodge and Arlington American Legion Post. Burr was 85 years old. — *Arnold Samuels, KH6COY*

HAROLD RADIES, W9BWN

20 November 1997 11:00 a.m. Harold Radies, W9BWN, signed off at Franklin Park, Illinois, at age 89. Hal was a great CW operator, great mobile op and a great guy. He will be missed by all radio amateurs.

He was best friends for over 50 years with Don and Shirlene Nolde, K4QV and K4DRB. He left his wife of 61 years, Lu Radies. 73s old pal. — *Don Nolde, K4QV*

MRS. W9CRC

Mrs. W9CRC passed away 01 November 1997. Never a Ham herself, she and 91-year-old husband Russell Rennaker, W9CRC, were married for 71 years. They were school days sweethearts. "She knew I was a Ham when she married me," Russ often said. "Tolerating my hobby all those years should have entitled her to a free license." She gave him his Collins KWM 380 for his 80th birthday. W9CRC survives. He was first licensed in 1922. — *Gerald Smith, W9JGB*

ROBERT BRADY, W4RK

Bob Brady (formerly WA4FTM) died 23 December 1997, at age 80 after a long battle with cancer.

Born in Chicago, he later moved to Long Island. He graduated from Columbia University with an engineering degree. At an early age, Bob demonstrated inquisitiveness and a desire to always learn more.

During World War II, Bob was a radio operator aboard Pan American World Airways Flying Boats and travelled throughout South and North America and Africa. During one flight to North Africa, they accidentally flew over the highly secret North African Invasion Force as it was in process. He commented he had never seen so many ships and boats in his entire life. He and his air crew participated in secret missions, transporting high level military and government officials overseas and back.

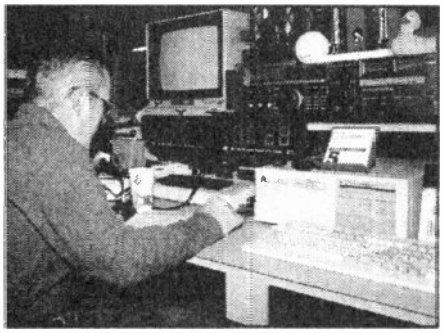
Following the war, he and his wife, Mary, moved to Atlanta with his company where he helped to design hospitals and churches. After retiring in 1983 he studied ancient Egypt and the Dead Sea Scrolls, became a certified navigator, studied and collected sea shells, minerals and gemstones, and also became an avid boater, too. He wrote many articles for various science, hobby, and amateur publications.

Bob belonged to ARRL, QCWA, Atlanta Radio Club, and was Secretary/Treasurer of the QCWA Peach State Chapter 49. He enjoyed HF propagation and antenna experimenting, HF CW/phone contesting, DXing, HF and VHF net participation. He regularly volunteered at the Atlanta Sci-Trek Science Museum (Sci-Trek Amateur Radio Society) to encourage young people's interest in science and Amateur Radio.

He is survived by his wife and two sons and will be missed sorely by amateurs and others. — *Jud Whatley, W4NZJ*

DENA MORGAN, W5DRI

Contester and DXer Dena Morgan, W5DRI, of Brookhaven, MS, died 30 November at the age of 73. Dena and her husband Shelton, W5DQK, were active contest and DX ops in the 1950s and 60s. During that period, Dena won several YL-OM Contests with her B&W 5100 and Collins 75A-3 on AM. She was a regular in the ARRL Sweepstakes and DX contests. "Old timers will remember her potent YL signal and the rare Mississippi YL multiplier she passed out," said Dave Thompson, K4JRB (ex-K5MDX). She also got other YLs involved with Amateur Radio. Her oldest son, Larry, AG5Z, is among her survivors. — *Larry Morgan, AG5Z; Dave Thompson, K4JRB; ARRL Letter*



Educom: Education through communication

MARK GROSSMAN, K2CON

Joe Fairclough, WB2JKI, a teacher in the NYC School District, currently serves as president of the Radio Club of Junior High School 22.

He runs a morning net from his classroom called the "Classroom Net" on 7.238, 1200-1330 UTC and also operates on 21.395, 1400-2000 UTC from the classroom when students are present. Checkins from his "22 Crew" come from all over the country as his students operate the radio, working many stations. They ask questions about many subjects of the people they work.

Several of Joe's students have earned their own amateur licenses.

Joe calls his program Educom. "Education Through Communication."

Joe now teaches in IS145 Middle School in Jackson Heights, grades 6, 7 and 8.

Left: Joe Fairclough, WB2JKI, operates his station.

Right: Some of Joe's students, "The 22 Crew."

Wisconsin hams eye mobile telecommunications bill

Hams in Wisconsin plan to monitor a bill to be introduced in the next legislative session that could have implications for Amateur Radio mobile operators. The measure, Assembly Bill 680, states in part, "No person while driving a motor vehicle shall be so engaged or occupied with the use of a mobile telecommunications device as to interfere with the safe driving of such vehicle or as to impede the normal and reasonable movement of traffic." While the bill is aimed primarily at cell phone users, Wisconsin hams will keep a close eye on the measure to make sure Amateur Radio is not adversely affected. The bill has had a first reading and has been referred to the Assembly's Committee on Highways and Transportation. For a copy of the bill, see http://www.legis.state.wi.us/billtext/AB680.pdf. — *ARRL Letter*

Walt Maxwell, W2DU, says:

From his foreword to the book "AERIALS".

The revealing nature of the material in this book makes it appropriate to begin by borrowing some words from ARRL's Executive Secretary, David Sumner, K1ZZ, writing in the 'Foreword' of my book, *REFLECTIONS—Transmission Lines and Antennas.* Dave writes:

"Tune in a QSO in the amateur bands where the subject is transmission lines, standing waves, antenna matching, reflected power or antenna tuners, and what do you hear? A lively discussion, most likely! The chances are high that you'll also hear some information that is only halftrue, or perhaps just plain wrong. Myths and oldwives' tales about these related subjects prevail, even though some years ago *QST* carried a series of articles to dispel such misinformation. The series, *"another look at reflections,"* written by Walt Maxwell, W2DU, appeared as seven parts in *QST* issues from April 1973 through August1976."

That series of articles from *QST* formed the basis for my 24-chapter book, *REFLECTIONS,* which continues to highlight and correct additional misunderstandings concerning antennas.

But wait, there's more, much more! And it gets even better! I've been fortunate in having three eminently qualified colleagues assisting in my crusade for a better understanding of transmission lines and antennas: First, there's the late John Haerle, WB6IIR, who authored *The Easy Way,* (which I edited for publication). And now come Kurt N. Sterba and Lil Paddle, the noms de plume of the husband and wife team who write the AERIALS column appearing in *Worldradio.* Their articles contain hard-hitting, sharply aimed rebuttals targeting many ludicrous statements and claims appearing in Amateur Radio literature and equipment catalogs. This book is a collection of articles selected from their column, and I am pleased to have been chosen by *Worldradio* publisher Armond Noble, N6WR, to review and edit their material for the book.

It's unfortunate that many of the prevailing myths and misconceptions concerning antennas and feed lines have been wrought by authors who published erroneous material, and also by the marketing departments of some manufacturers, who play loosely with the truth in exaggerating the performance claims for their products. And some manufacturers even present erroneous information concerning the operating principles of their products, with some instruction manuals containing data obviously written by someone who didn't understand the principles. I highlighted only a few examples of the problem in *REFLECTIONS,* but luckily for the Amateur, Kurt and Lil have uncovered many more examples, many that I didn't know existed. It's obvious from their writings that they have covered a wider range of Amateur Radio literature than I.

In reading this book you'll enjoy Kurt and Lil's writing as they expose the erroneous material with rapier-like jabs, puncturing and deflating outrageous claims with acerbic wit and choice humor. You'll also enjoy their good-natured verbal sparring—there's a lot more here than pure technical discourse! However, as with my *REFLECTIONS* many of Kurt and Lil's statements are bound to rattle some cages, and cause much gnashing of teeth in those of you who have been taken in by the myths. Therefore, with this book as their operating room, I know you'll be surprised to discover you've been educated, as well as entertained, in watching them perform selective surgery in separating facts from fiction. Happy reading!

Walt Maxwell, W2DU
ARRL Technical Advisor (TA) for Antennas and Transmission Lines
DeLand, Florida

The book "AERIALS" is $11, and $2 for shipping and handling. (Calif. stations add $.85 state tax.) Worldradio, 2120 28th St./Books Sacramento, CA 95818. Use your Amex, Visa, MC, and you may call (916) 457-3655.

Station Appearance

Hugo Holland, Jr. KJ5SZ

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.

Here is my photo and equipment description. The first vertical column on the left contains a dot matrix printer, a Kenwood TS-440S along with AT-250 Auto tuner. The 440 is hooked to a G5RV and a 12/17/30 Meter Vertical. Directly below the 440 is an HP DeskJet 600C Printer.

The second column contains an old crystal controlled ICOM 2M radio manufactured for Sears. It has a dedicated 5/8 2M Vertical on the tower and is connected to a CES Personal Patch and a Mirage B23G amplifier. I use it predominantly for local repeater access and accessing my own home phone line from distances up to 5 miles. You can see my "home brew" Pentium 133 MHz mini-tower computer with 32 Mb of Ram that runs the whole shack. Finally, under the computer you can see my US Robotics 33.6 Modem and the MFJ 784 DSP Filter.

The third column contains my Kenwood TS-850S with auto tuner, my Kenwood IF-232C interface, and of course my computer monitor. The 850 is hooked to a Sommer phased array log periodic which covers 10/12/15/17/20/40 meters and an 80M vertical. Directly below the Kenwood is a recessed shelf for the computer keyboard.

The fourth column contains the cable TV box (gotta have that, right?) an Icom 290-A 2M all mode (which has a dedicated 13-element 2M horizontal beam for sideband work), and a Mirage B1016 amplifier for the all mode. Directly under that is a Kenwood TM733 dual-bander, an MFJ packet switch, and a KAM. Finally in this column is my MFJ Versa Tuner V and a Heathkit SB-1000 Linear, both of which are dedicated to the 850.

Finally in the last column are two scanners, my small but useful color television, an antenna switch for the 850, and my rotor controller.

The equipment is located in a 16x33 building in my back yard with its own telephone and electric service. It also has a bathroom, kitchen, and couches. There may be others with better stations, but this is the most comfortable contest station I've seen, and I love having my friends over for contest weekends!

— 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!

Great mobile antenna!

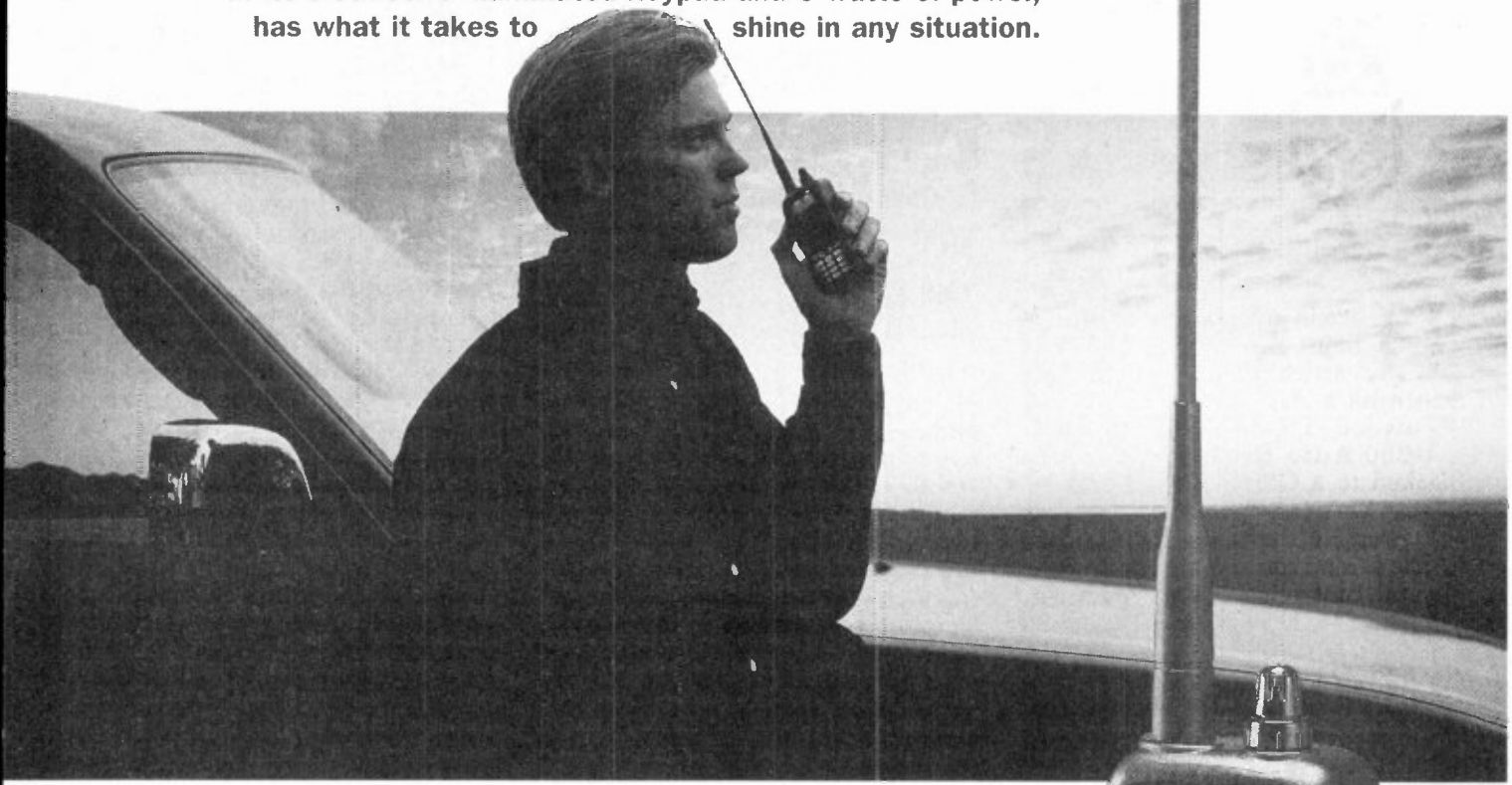
W.G. HAMMOND, W7OTJ

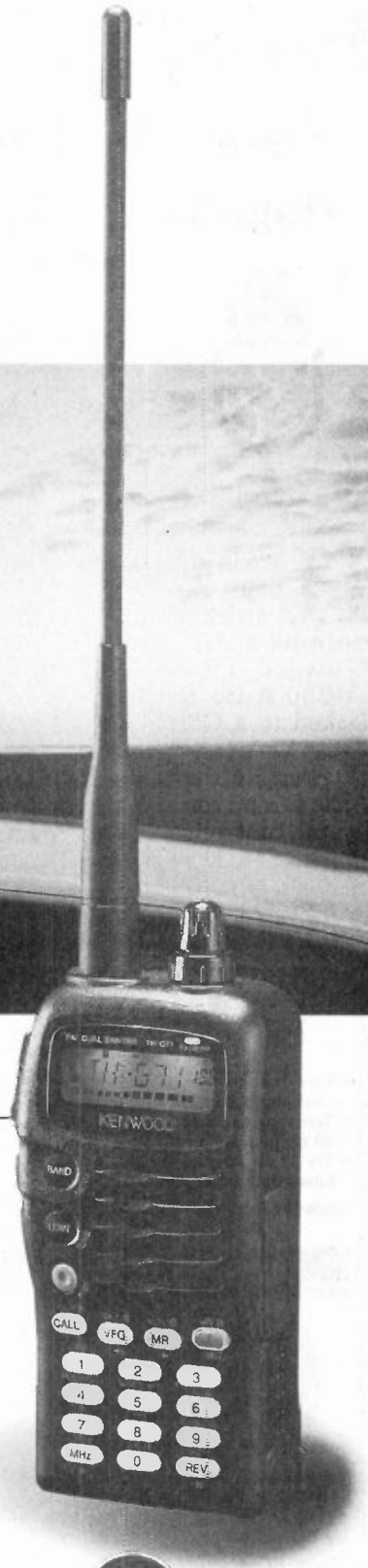
At one of my first Hamfests, one of the older Hams brought a motor home which was a converted bus. A bunch of us were standing around admiring the rig, especially the crank-up TV tower which he had bolted on the back of the bus, giving gave him a 20-foot-plus tower for antennas while in camp. . .

A new guy came up and said that it was sure a great mobile antenna and asked if it worked pretty well. The owner of the rig replied it was a great mobile antenna, but he did have a little trouble with some underpasses. . .

Look on the brighter side of handhelds

Kenwood's new TH-G71A dual-bander (144MHz/440MHz), with its distinctive illuminated keypad and 6 watts of power, has what it takes to shine in any situation.





TH-G71A 144/440/MHz FM DUAL BANDER

If you're looking for a compact dual-bander with all the right features, yet without the price tag that usually goes with high performance, there's no better choice than the TH-G71A.

Just hold it in your hand and it's immediately clear how well our new handheld transceiver is engineered. The ergonomic design, **illuminated keys** and **backlit display** all combine to make operation a breeze. As does the menu mode, which allows you to customize the TH-G71A by adjusting all major settings to your choice. Besides being easy to use, it also boasts extraordinary power – up to 6 watts (VHF) or 5.5 watts (UHF) of RF output (selectable) with its **high-performance antenna.** The speaker provides **powerful, refreshingly clear audio.**

Of course, power is only part of the picture. Features count. And you can count on the TH-G71A to offer what you'd only expect to find in far more expensive HTs. There are **200 memory channels** – allowing you to store transmit and receive frequencies independently. Memory data can even be edited and stored on your PC. Multiple scan functions are available, including programmable band scan, memory scan with memory channel lock-out, MHz scan and call scan. For each band there are TO (time-operated), CO (carrier-operated) and seek scan resume modes. With the Memory Name function you can choose to identify each channel with up to **6 alphanumeric characters.** DTMF memory and GTCSS tone encode/decode are provided.

The TH-G71A also scores well for stamina and reliability, boasting long battery life – thanks to a variety of power-saving features – and **MIL-STD 810E** compliance for rain & shock resistance. So there's no need to go easy on this dual-bander. It's built better and brighter in every way.

- **6W (VHF), 5.5W (UHF) at 13.8V DC**
- **PC programmable**
- **200 memory ch. with alphanumeric display**
- **MIL-STD 810E (rain & shock)**
- **CTCSS tone scan**
- **Wide-range coverage (incl. aircraft receive)***
- **DTMF memory (10 ch. up to 16 digits)**
- **Multiple scan modes**
- **Key illumination**
- **High-performance antenna**
- **HI/LOW/EL power output selectable**
- **TM-V7A remote control (DTMF remote)**

** Specifications are guaranteed for Amateur Bands only*

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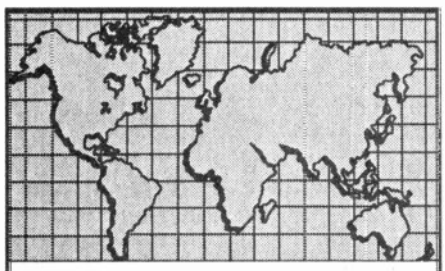

DX WORLD

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• E-mail: n6jm@pacbell.net•

W-100-N

No Worked 100 Nations awards were processed during the month of December. Don't forget our new CATZ Award, which is just as challenging.

Antigua (V2)

Some New England DXers: Bob, AA1M; Jim, W1HL; Mike, W1USN, and Tim, KA1MID, will be operating from the island of Antigua, 23 February-02 March. The group will QSL 100 percent via the bureau and will answer all direct QSL requests. No call has been assigned at the moment.

Cameroon (TJ)

The *Daily DX* reports that Bob Ferrero, W6RJ, and his son Bob, Jr., W6KR, will on the air from Cameroon signing with TJ1GB 15 February-01 March and will be active on all bands, 10 through 160 Meters. The two of them are on an African safari leaving the radio work for hours of darkness.

Chad (TT)

According to The *Daily DX* Eric Jauch, F5JKK, is now active from Chad signing with TT6M, or TT8AQ, through May 1998. Suggested frequencies for CW contacts: 1.837, 3.525, 7.025, 10.103, 14.025, 18.075, 21.025, 24.895, and 28.025 MHz. For contacts via SSB try looking for Eric near 1.846, 3.795, 7.060, 14.180, 18.145, 21.280, 24.945, and 28.480 MHz.

Eric has operated from previous locations with other interesting calls such as J28BR, TT8AQ, FOØAQ, TA5ZA, TL8MB, XU5DX, 5TØREF, 4T6E, 5T5JC, and TL8EJ.

Eric also likes 6 meters, which is reported to be his favorite band. When the band is open try 50.105, 50.110, or 50.205 MHz.

East Malaysia (9M8)

Peter Borsboom, PAØALB, reports he expects to be active from the Isle of Borneo (OC-088) in Sarawak. He will be active 10 April-22 May 1998 and will sign with 9M8CC. Try looking for Peter on 15 and 20 Meters between 1100 and 1700 UTC.

Jan Mayen (JX)

The *Daily DX* notes that Terje, LA3EX, will be on Jan Mayen (EU) through March or April. On the island he signs with JX3EX and operates all bands. Look for him between 1000 to 1300 UTC on 10 and 15 Meters near 28.500 and 21.300 MHz. On 20 Meters try 14.200 Mhz around 1600 UTC and on 40 Meters near 7.050 MHz between 1700 and 2000 UTC. There was no SSB activity reported as of the end of November.

Kerguelen Island (FT5X)

Mid-December FT5XN on Kerguelen Island showed on the bands, operated by Helios, F6IHY. His listed operating frequencies include: 14.209, 21.209, 21.309, 28.509, 18.159, and 24.959 MHz. He is only running 100 watts to a ground plane and dipoles. He is expected to be active until June of this year.

Libya (5A)

The German DXpedition to Libya was a successful one. Under the call of 5A2A they have collected approximately 25,000 contacts. Everyone who concentrated on this one should have worked them. I didn't concentrate and wound up empty-handed. Too many other things to do.

And, for those of us who missed the operation, there will be another one during the period of 02-08 March. Three Belgium operators: Tiny, ON4CAT, a YL operator; Patrick, ON4APS, and Frank, ON4CEL, will sign with the call 5A21PA for the celebration of the declaration of "People Authority." Operation should include CW, SSB and RTTY.

Lord Howe Island (VK9)

Dan Flaig, K8RF (ex-WT8N), and Nick Hacko, VK2ICV, have returned from their November 1997 DX-pedition to Lord Howe Island where they signed with VK9LX. Of the 13,300 contacts they collected, 500 of them were on the top band. Dan says, "The first few nights were pretty good, and I managed to work 60-70 U.S.A. stations each morning three days in a row, and Nick put quite a few European stations in the log as well, but the local weather didn't cooperate much, as it seemed to be raining every night starting around 1000 UTC, which made the QRN VERY, VERY, VERY bad, with worse conditions as the week progressed. After a decent start the first three nights it was extremely frustrating Thursday and Friday to hear many stations calling us with what would have been excellent signal levels but the static crashes were S9++ which made pulling call signs out of the QRN almost impossible the last couple of days. It literally made us have to pull calls out one letter at a time it seemed.

Ron and Nick also took part in the CQ World Wide DX Contest, managing to make 4,500 contacts.

Macquarie Island (VKØ)

Jim Muller, VK1FF, informs the DX community that the VKØTS Macquarie Island cards are being processed. Part of the delay was due to Simon Trotter, VK1AUS, the QSL manager, not receiving all the logs until Tom returned to Australia. Tom also maintained a paper log, which took longer to verify and manually fill out each QSL card. The total amount of contacts for VKØTS was about 2,800, plus a couple more hundred for his VKØANARE operation.

Minimi Torishima (JD1)

Charlie Carpenter, KA5EAV, offers some insights on the availabil-

ity of contacts from Minimi Torishima, also known as Marcus Island. Access to the island is limited to official government business. There is presently a small Japanese weather station located there manned by a staff of 10-15 personnel. From what Charlie says, the U.S. government no longer has a facility there. Several years ago he did operate from the island as KA2CC.

North Cook Islands (ZK1)

Tom Harrell, K8XP, says that the QSL cards for the September ZK1XXP DXpedition to the North Cook Islands have still not arrived from the printer in Germany. He asked all who are awaiting cards to please be patient.

Rodrigues Island (3B9)

The Midway-Kure DX Foundation is planning a DXpedition to Rodrigues Island, tentatively set for the first week in April.

San Felix (CEØ)

According to 425 DX News John Torres, CEØZAM, is planning to be active again from Ambrosio Island (SA-013), one of the San Felix Islands for about 20 days in April or May 1998. He will sign with XQ0X.

Spratly Islands (1S)

The 9MØC DXpedition to the Spratly Islands is scheduled for 12-24 February. They will be operating from Layang Layang Island.

Western Samoa (5W)

Cedric Baechler, HB9HFN, along with HB9DLZ, will operate from Western Samoa 10-23 February signing with 5WØFN and 5WØLZ, respectively. They will have finished a tour to Tongatapu in Tonga where they signed with A35FN and A35LZ 05-10 February.

I O T A

The *Daily DX* reports Yuki, JI6KVR, will run another of his many IOTA DXpeditions from Tokara Archipelago (AS-049) where he will sign with JI6KVR/6 20-23 February 1998.

On from Saintes Island (NA-114) until 15 February is Alain signing as FG/F2HE.

David Steeman, ON4BDS, says he will leave for Umea, Sweden, in early February for employment through the end of July. While there he plans to operate from two IOTA islands in the Gulf of Bothnia. These are Holmon Island (EU-135) and Norrbyskar Island (EU-101), where he will operate on weekends as SM/ON4BDS/P and OH6/ON4BDS/P, respectively. He says he will give advance notice by a few weeks via e-mail and packet.

The *Ohio/Penn DX Bulletin* notes that a group of German DXers from Berlin will activate Wolin Island (EU-132) 10 March-10 May and will sign with SO5OE/1. These operators will include: Mike, DK2OE; Birgit, DL7IQ; Holger, DL7IO; Fritz, DL7VRO; Gerda, DL7VYL; Roy, DL7UBA, and Hans-Juergen, DL1YFF. Some of these calls are quite familiar to the DX game.

Here is a selection of the IOTA activity during December. The period of activity does not mean that they were active every day during the period and may have also been active outside that period:

AF-010	3C1/YN1GSR	Bioko Island	21 Dec
AF-018	IH9/IT9FXY	Pantelleria Island	02 Dec
AN-006	EM1HO	Galindez Island	01-22 Dec
AS-078	JG8RAC	Rebun Island	13 Dec
AS-005	RAØBK	Dickson Island	03-31 Dec
AS-006	VR2KM	Hong Kong Island	12 Dec
AS-017	7J6CEG	Okinawa Island	02 Dec
AS-018	UAØFDX	Sakhalin Island	04-10 Dec
AS-024	JS6LIH	Yaeyama Islands	03 Dec
AS-032	JO6PRM	Yakushima Island	18 Dec
AS-043	7K4STV	Nampo Archipelago	01 Dec
AS-045	HL5FUA	Ulung Island	01-02 Dec
AS-053	HSØ/IK4MRH	Phuket Island	03-30 Dec
AS-081	HLØZ/5	Hansan Island	28 Dec
AS-084	HLØC/4	Chiuja Island	23-28 Dec
AS-107	E22AAD	Koh Samet	15-21 Dec
EU-009	GM3POI	Orkney Islands	19-22 Dec
EU-020	7S1BL	Gotland Island	01 Dec
EU-025	IT9EQO	Sicily Island	14 Dec
EU-030	OZ1GBS	Bornholm Island	17 Dec
EU-034	ESØNW	Hiiumaa Island	16 Dec
EU-036	LA8LA	Hitra Island	13 Dec
EU-037	SM7CRW	Oland Island	21-23 Dec
EU-037	SM7DLZ	Oland Island	04-31 Dec
EU-046	LA5QFA	Isle of Vanna	13 Dec
EU-056	LA4GHA	Gossen Island	17-19 Dec
EU-057	DL4PM	Ruegen Island	16 Dec
EU-057	DL2ANS/P	Hiddensee Island	07-08 Dec
EU-057	DL2RVL/P	Hiddensee Island	08 Dec
EU-076	LA7DHA	Lofoten Islands	29 Dec
EU-082	U1ZA/A	Kildin Island	21-22 Dec
EU-120	GB100IOW	Isle of Wight	05 Dec
EU-124	GWØHGN/P	Anglesey Island	02-31 Dec
EU-133	R1ASP	Kotlin Island	03-31 Dec
NA-028	KL1SLE	St. Paul Island	03-05 Dec
NA-036	VE7IU	Vancouver Island	05-13 Dec
NA-041	KL7AK	Douglas Island	21 Dec
NA-051	VE7QCR	Graham Island	07 Dec
NA-052	N2OFY	Marco Island	23 Dec
NA-055	AK1L	Vinalhaven Island	01-31 Dec
NA-064	KLØDB	Attu Island	13-17 Dec
NA-065	KK7JP	Whidbey Island	04 Dec
NA-072	3E1DX	Contadora Island	01-08 Dec
NA-080	C6AIE	Abaco Island	12-16 Dec
NA-132	HK3JJH/HKØA	Bajo Nuevo Cay	14-15 Dec
NA-133	HK3JJH/HKØB	Serrana Bank	12 Dec
NA-140	W3YN	Kent Island	15-16 Dec
NA-198	VO1JEB	Newfoundland Coast	15 Dec
OC-006	VK7CW	Tasmania	03-20 Dec
OC-011	V63KU	Truk Island	03-22 Dec
OC-013	ZK1DI	Rarotonga Island	05 Dec
OC-022	YB9CCB	Bali Island	16 Dec
OC-042	4F3CV	Luzon Island	01-23 Dec
OC-067	FO5NL	Raiatea Island	31 Dec
OC-137	VK4LV	Bribie Island	20 Dec
OC-137	VK4CY	Lamb Island	22 Dec
OC-148	YC9NBR	Timor Island	01 Dec
SA-008	LU8XPA	Tierra del Fuego	13 Dec
SA-012	YV5ESN/7	Isla Margarita	17 Dec
SA-018	CE7OXZ	Chiloe Island	03 Dec
SA-049	L20XSI	Staten Island	01-02 Dec

John Pendrey, KLØDB, reports he made 202 contacts during his short visit to Attu Island (NA-064). His antenna amounted to 100 feet of speaker wire. Attu Island was occupied for about one year by the Japanese during World War II. Yes, the

war was fought on the North American continent and most people are not aware of that. For more information refer to *The Forgotten War* by Stan Cohen. The collection amounts to four volumes.

Although the Queen Charlotte Islands (NA-051) was well represented during the 1997 IOTA Contest, you can contact Terry Mitchell, VE7TLL, or Pat, VE7QCR, for this one. Terry says he and Pat are the only resident HF amateurs up there and are looking for contacts as it is a pretty lonely during the wet and windy winter. If you need a schedule feel free to contact VE7TLL at terr@qcislands.net, and VE7QCR at qcr@qcislands.net.

Alberto, LU1DZ, reports that the L20XSI DXpedition to Isla de Los Estados, a.k.a. Staten Island, (SA-049) logged 5,303 contacts during their 5-day stay, with 4,518 of them via CW. The operation began the end of November and included the CQ World Wide DX Contest. The QSL cards will be sent out soon.

There has been a lot of activity on or near the 20-Meter IOTA frequency of 14.260 MHz. Be aware that a lot of this activity is for the U.S. Islands Award program and many of the islands do not qualify for IOTA. Unless, the operator indicates otherwise, these islands are not IOTA material.

Five-Band DXCC

So you think the only way you will ever achieve the coveted Five-Band DXCC (5BDXCC) is to buy an amplifier? Not really. How about QRP style?

Tom Russell, N4KG, is just one of those DXers who did it running very low power, a.k.a. QRP. Tom writes: "The key to my QRP 5BDXCC is 80 Meters. The other bands were easy by comparison. I made my first QRP contact using a Heathkit Apache and SB-10 with an external pi-network when I was in high school in the early 1960s. After working 'em all (or almost all) on the high bands, I needed a reason to keep tuning the high bands so I started doing QRP DX and then QRP contesting on the high bands. At the time, I had a two-element delta loop at 120 feet fixed on southern Europe and North Africa on 40 Meters, plus a two-element inverted vee at 70 feet aimed at the Caribbean and South America. After achieving QRP DXCC on the high bands, I decided to try 40 Meters and found it almost as easy.

"One night in March of 1984 there was an exceptional opening to Europe and North Africa on 75 Meters and I said 'why not?' and gave a call with five watts. That started the long trail to 80M QRP DXCC and 5BDXCC QRP.

"The 80-meter antennas in use at the time were an inverted vee at 100 feet aimed broadside to EA and ZL and my elevated ground plane. As I recall, it took several years, but I finally made the grade. The secret was waiting for GOOD openings and not getting discouraged when I couldn't make my five watts heard abroad. Having been a serious 5BDXCC and 5B Worked-All-Countries pursuant since my college days gave me the preparation and knowledge of propagation which allowed me to utilize the optimum times and paths to complete the difficult task of working 100 countries on 80 Meters with only five watts output.

"From 1973 to 1989, I lived in town (Huntsville) and had two towers, with a TH3 at 50 feet on one and a two-element Mosley Quad plus 40-meter rotary dipole at 80 feet on the other, which also supported an 80-meter inverted vee and an 80-meter sloping wire vertical on a half-acre lot. It was from this location that I began my serious QRP DXing on the high bands.

"In late 1979 I moved to the country and started building a more extensive antenna farm on four acres using small tower and modest antennas. On 14 February 1990, a 75-meter contact with ZL4BQ completed the sought-after goal of 5BDXCC QRP. The real key to it all is PATIENCE and PERSISTENCE."

That makes me envious. It has taken me about 25 years to work my 100 countries on 80 Meters and I was running a big 100 watts — 20 times the power Tom was running. Tom has been in the DX game for a long time. He was first licensed in 1955 as WN4FAW at age 11 and got his General Class ticket the following year, dropping the "N" from his call.

For further information on operating QRP style turn to *QRP* by Richard Fisher, nu6SN, located in the pages of this famous publication!

Dxing vs. Contesting

There was an interesting letter in the November/December 1997 issue of *The DX Magazine*. The writer, not particularly fond of contests, writes: "I deplore how they totally mess up the bands and how rudely they operate. I see no reason for their existence."

The writer also commented earlier in his letter: "I am aware that without contests, there would be little new DX." If the writer had reversed his comments he would have answered his own statements. Most of us must agree that contests definitely add to the number of DXCC countries we have worked. If it were not for contests I would still be plugging away at my recently acquired 80 Meter DXCC.

On the *DX Reflector* recently a Dxer requested help in making a contact with CQ Zone 1 on CW, his last zone needed to complete his CW WAZ. It was suggested that he get involved in the *CQ* World Wide DX Contest at the end of November as there should be several on from Alaska. Listening to the activity there were several, including VY1JA from the Yukon. I also suggested that he check back through his past Sweepstakes logs for Alaska contacts.

The argument that contests are rudely operated and mess up the bands is really a matter of opinion. Some DXpeditiions cause the same havoc. But, if you are after DX, what difference does it make how you collect your needed ones?

New DXCC Fees

As of the first of the year there is a new fee structure for ARRL awards. There is a substantial increase here. Be sure to read the announcement on page 83 of your January issue of *QST*. For you non-ARRL members consider adding another ten bucks to each DXCC item that you have paid for in the past.

Regarding QSL confirmations for DXCC awards please be aware that electronic QSL cards are still not accepted by the DXCC desk for credit. There has been much discussion lately on the matter with such cards available. Some DXers may be misled into thinking a QSL card via e-mail is valid for awards credit. It is not!

100 Years of Amateur Radio

To celebrate 100 years of Amateur Radio the RSGB is issuing two new awards to celebrate the event. Neville Cheadle, G3NUG, who is Chairman of the RSGB HF Committee, provides the requirements for these awards, one for contacts via HF, and the other for contacts via VHF and UHF.

For the HF award 100 points are required for contacts made during 1998. One point is granted for working each different IOTA reference, Commonwealth Century Club call districts, ITU zone, postal "District Code," and IARU Region 1 Country. One contact may count for several points. One bonus point can be claimed for the first contact on each mode used, band used, and for each entry submitted for an RSGB contest.

As you can see this award will be easy to achieve. All that is required is a log extract certified by two licensed amateurs and a summary sheet of the points claimed per contact listed by call sign. The fee is US$6 for RSGB members; overseas applicants the fee is US$12 (or 24 IRC) provided that you are a member of your national society (ARRL for Americans and RAC for Canadians).

They require proof of membership. Most likely the mailing label of *QST* will do. If you belong to no society then the fee is US$18 (36 IRCs).

Send your application to the RSGB HF Awards Manager, Fred Handscombe, G4BWP, Sandholm, Bridge End Road, Red Lodge, Bury St Edmunds IP28 8LQ, ENGLAND.

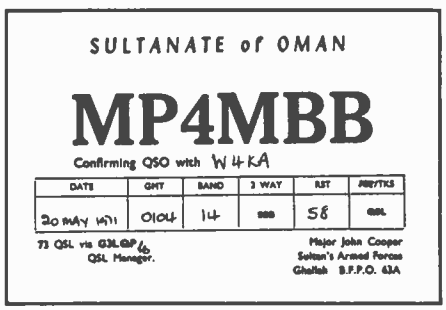
The requirements for the other award differ, but I am not going to discuss this one as this is a DX column. For information on this one go to: http://www.pagnell.demon.co.uk/100award.html.

Antique QSLs

Sam Macy, W2DNN, is looking for one of his old QSL cards dating from the 1930s which showed him in a prison uniform behind bars in a cell operating his radio. Sam has lost the original and was able to acquire his old call back under Gate 1. If any one of our old time DXers can loan Sam one of the cards he would appreciate it. Contact Sam at 486 Glenwood Trail, Elgin, IL 60120, or phone him at 847/695-0218.

Here are some more of the QSL cards from Leo Haijsman's collection. The first is for a 20-meter SSB contact Leo made with the ET3ZU/A DXpedition to Tair Island in September 1971. The team included five Dxers: John, K3BSY, Tony, I1IJ, Aldo, ET3ZU, Dick, F2QQ, and Ron, F5QQ. Known as Abu Ail Islands for DXCC purposes this one joined the deleted list 20 years later in 1991.

That same year Leo worked MP4MBB, operated by Major John Cooper. The following year the prefix was changed to A4 and was no longer part of Britain's empire.


SULTANATE of OMAN

MP4MBB

Confirming QSO with W4KA

DATE	GMT	BAND	2 WAY	RST	REMARKS
20 MAY 1971	0104	14	SSB	58	QSL

73 QSL via G3LQP
QSL Manager.

Major John Cooper
Sultan's Armed Forces
Ghalish B.F.P.O. 63A

DX Prediction — March 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.

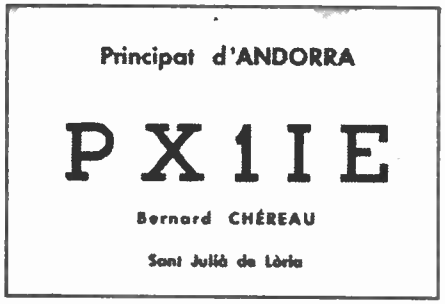
UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	16	*11	*19	*(10)*	*18
10	15	*10	*17	*(10)*	*17
12	27	*13	*14	18	*22
14	*33	14	*23	*22	*30
16	*35	13	20	*21	*33
18	*34	13	18	18	*35
20	*28	22	22	13	*36
22	*23	23	*30	*(11)*	*35
24	*20	21	*35	*11	*34
2	*18	*(15)*	29	*10	*28
4	*18	13	*26	*10	*24
6	17	*(11)*	*22	*11	*20

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	*(12)*	*14	*20	*(10)*	*18
12	*(12)*	*13	*18	*(10)*	*(15)*
14	*(22)*	*15	*15	18	*27
16	26	14	*20	*21	*33
18	*28	13	18	18	*35
20	*28	*22	22	13	*36
22	24	*28	*30	*(11)*	*35
24	20	*30	*34	*(10)*	*35
2	*18	*27	*36	*10	*28
4	*16	*20	*31	*10	*24
6	*(14)*	*17	*28	*12	*20
8	*(13)*	*15	*24	*(11)*	*18

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	16	*(10)*	*(19)*	*10	*18
9	*(16)*	*10	*17	13	*17
11	*30	*13	*14	*20	*21
13	*35	(12)	*24	*23	*30
15	*35	*(11)*	21	*23	*33
17	*37	*(10)*	18	*21	*35
19	*31	*(13)*	*(16)*	*19	*35
21	*26	20	27	*13	*35
23	*22	21	33	*11	*35
1	*19	*(15)*	28	*11	*28
3	*17	12	*26	*10	*24
5	*17	*(11)*	22	*10	*20



The third QSL card is not for a contact with Brazil. PX1IE was operated by Bernard Chereau of Andorra. Leo worked him 20 August 1966 via the YL ISSB System on 14.332 MHz. The PX prefix used by Andorra was an unofficial one and was eventually assigned the C3 prefix. Andorra was very rare in those days and, evidently, is becoming rare again.

New Orleans Int'l. DX Convention

The 7th Annual New Orleans International DX Convention will be held again this year at the Royal Sonesta Hotel in the French Quarter 14-15 August. With a number of outstanding DX and technical presentations, they look forward to another memorable convention. Make plans to join them in New Orleans this August.

The group invites nominations for DXer of the Year. Please send nominations by 28 February on behalf of those who have significantly contributed to our enjoyment of DXing. Nominations for DXer of the Year can be mailed or e-mailed to: Stan Pulitzer, 4236 Vincennes Pl., New Orleans, LA 70125; e-mail w5jyk@aol.com.

QSL information

Leon Katz, K2EWB, offers advice on obtaining QSL cards from Jahanzeb Arbab, AP2JZB. When requesting a QSL card directly from Bob (AP2JZB), please include your QSL card, two IRCs, and a return addressed mailing sticker. Do not seal the envelope. Tuck the flap inside and staple the envelope near the bottom. The envelope can then be inspected without anything being lost. Do not send green stamps.

Leon also says you may send your request via him. Please include one green stamp or two IRCs, your QSL card, and a return addressed stamped envelope (SASE). He will then forward the cards to Bob for processing. He in turn will return the cards to Leon. The postage funds will be deposited in Bob's bank account locally. Do not expect instant service as Leon is not Bob's manager and has no logs for AP2JZB.

Thanks to the following contributors for this month's column: F6AJA, F6ITD, G3NUG, G3XTT, OH2LVG, ON4BDS, PBØALB, VE7TLL, VK1FF, VK6APK, W1EKT, W2DNN, K2EWB, WI3U, K3ZO, N4CC, N4GN, N4KG, NN6C, N6RT, KC6WYX, K8RF, K8XP, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), 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), and *DX News Sheet* (G4BUE).

December was an interesting and busy month for us. Not much DX working to claim, mainly just too busy. We drove to Oregon to visit one of our daughters. While driving down Hwy 42 near Myrtle Point I was pulled over by an Oregon State Trooper and received a very warm welcome. Watching people drive by thinking, "Ah, they got another California driver!" was very interesting. It's a bit intimidating to be stopped — even if it is your own daughter!

The best of DX to you in this new year! 73 de John N6JM.

Australian YL Nets

Nets to listen for:	Frequency	(UTC)
YL 222 DX net:	14.222Mhz	0600
Euro. YL DX:	14.243	1700
Official ALARA:	3.580 (mon)	1030
VK6 ALARA/YL:	3.580 (mon)	1200
VE/VK/VL:	14.148 (fri)	0500
VK4 CQ YL:	3.565 (fri)	0930

–Australian Ladies Amateur Radio Assn Newsletter

QSL managers

The following QSL routes are correct to the best of our knowlege. Please report errors.

1X5AA	—W3HNK
3B8/JE2HCJ	—JA2JSF
3D2KY	—JA3MVI
3D2LJ	—JM1LJS
3D2QB	—SM3CER
3DA5A	—JH7FQK
3E1DX	—KU9C
3V8BB	—F6FMX (6)
3V8BB	—F6FNU (5)
3W5FM	—UAØFM
3XA8DX (CW)	—DJ6SI
3XA8DX (SSB)	—DJ9ZB
4F1UFT	—PA3FWG
4G50N	—DU9RG (2)
4J0FR	—F6AJA (2)
4K6DFT	—UA9AB
4K6FT	—UA9AB
4K8F	—UA9AB
4K9W	—DL6KVA
4L8A	—OZ1HPS
4S7DA	—W3HNK
4U1WRC	—4U1ITU
5A21PA	—ON4APS
5A2A	—DL3KDV
5B4ADA	—9A2AJ
5H1/LA6RHA	—LA6RHA
5H3/LA6RHA	—LA6RHA
5H3RB	—LA4DM
5R8EE	—FR5EL
5R8FK	—NY3N
5WØFN	—HB9HFN
5WØLZ	—HB9DLZ
5X1T	—ON5NT
6C5OO	—YK1AO
6D2X	—K5TSQ
6KØIS	—HL1WD
7X2CR	—ISØLYN
7X2RO	—OM3CGN
7X5AB	—F6BFH
7Z5OO	—N2AU
8P9DX	—VA3DX/ VE3ICR
8P9EM	—G3VBL
8Q7DV	—UA9CI
8Q7IG	—JA3IG
9H3JR	—DJØQJ
9H3PB	—DF4EK
9H3XY	—G4ZVJ
9H3ZV	—G4ZVJ
9J2BO	—W6ORD
9K2GS	—W6YJ/ WB6JMS
9K2ZZ	—W8CNL
9MØC	—G3SWH
9M6NA	—JE1JKL
9M8CC	—PBØALB
9N1ARB	—KV5V
9N1AT	—JH8XIX
9N1BFI	—VK6BFI
9N1CU	—JH8XIX
9N1FP	—RU6FP
9N1IZ	—JH8XIX
9N1JZ	—JH8XIX
9N1NE	—VK6NE
9N1OW	—JH8XIX
9N1XI	—JH8XIX
9Q5BB	—W3HNK
9Q5HX	—IK2MRZ
9Q5YT	—W2TK
9U5CW	—EA1FFC
9U5W	—VE2EK
9V1YC	—AA5BT
9XØA	—DL5WM
9Y4H	—K6NA
A35FN	—HB9HFN
A35KY	—JA3MVI
A35LZ	—HB9DLZ
A4/KE3Q	—W3UR
A4/K3LP	—W3UR
A43XXV	—A47RS
A45XJ	—G4MZY
A61AJ	—W3UR
AA1AC/VP9	—AA1AC
AH2R	—JI3ERV
AH8LG	—KS6DV
AP2JZB	—K2EWB (1)
AP2TJ	—W3HNK
BOØBSC	—(3)
BVØBSB	—(3)
BVØBSC	—(3)
BVØBSD	—(3)
BVØBSE	—(3)
BVØBSF	—(3)
BVØBSG	—(3)
BVØBSH	—(3)
BVØBSI	—(3)
BVØBSJ	—(3)
BVØBSK	—(3)
BVØBSL	—(3)
BVØBSM	—(3)
BVØBSN	—(3)
BVØBSO	—(3)
BVØBSP	—(3)
BVØBSQ	—(3)
BVØBSR	—(3)
BVØBST	—(3)
BVØBSU	—(3)
BVØBSV	—(3)
BVØBSX	—(3)
BVØBSY	—(3)
BVØGSM	—BV4ME
BV2BI	—W3HNK
BV2YA	—JP1RIW
BV3/DJ3KR	—DJ3KR
BY1QH	—K9FD
C4A	—AH3C (7)
C51A	—W3HNK
C56/JA1OEM	—JA1OEM
C6AIE	—WZ8D
C6AJR	—WB8GEX
C6AJT	—W4CJK
CM8TW	—W3HNK
CO2KK	—W5WP/ WQ5Y
CO3CL	—W3HNK
CO5GV	—W3HNK
CO8TW	—W3HNK
CT1BOH	—W3HNK
CT4NH	—W3HNK
CW5W	—CX7BY
CW6V	—W3HNK
CX5X	—W3HNK
CX6VM	—W3NHK
D2AI	—CT1EGH
D2BB	—W3HNK
D3SAA	—CT1BZJ
DX1HB	—JA1KJK
E21CJN	—W3PP/ K3WUW
E22AAD	—DL2FDK
EA8AK	—W3HNK
EK6GC	—W3HNK
EM1HO	—I2PJA
EN6Q	—UA9AB
EO6AHG	—UW6HS (2)
ER1OO	—UW6HS (2)
ER5GB	—W3HNK
ER5WU	—W3HNK
EW1TZ	—W3HNK
EW3LB	—W3HNK
EW6WR	—GW3CDP
EX8A	—UW6HS (2)
EX8MLE	—IK2QPR
EX8QA	—UW6HS (2)
EY1ZA	—W3HNK
EY4AA	—UA9AB
EY7AH	—UW6HS (2)
EY8VV	—UW6HS (2)
EZ5AD	—UW6HS (2)
EZ8AI	—UW6HS (2)

EZ8AI —W3HNK
FG/F2HE —F6LQJ
FG/JA2EZD —XW2A
FK8GM —WB2RAJ
FK8HC —VK4FW
FM5BH —W3HNK
FM5DN —KU9C
FM5GU —WA4JTK
FOØGUI —F5UIV
FP5BZ —F1TJP
FR/DJ4OY —DJ4OY
FR5VZ —F5VZ
FS5UQ —W3HNK
FT5XN —F6PEN
FT5ZG —F5RQQ
FY5YE —W5SVZ
H44IO —DL7VRO
HC8N —AA5BT
HFØPOL —SP3FYM (4)
HL5BTF —W3HNK
HL5KY —W3HNK
HR1SAX —W3HNK
HR6XX —CX3CE
HSØ/DL2FDK — DL2FDK
HSØ/VK3DXI —DL4DBR
HSØZAA —KM1R
HS1RU —JG3AVS
J28AG —F6FNU
J39A —KQ1F
J49IL —DJ5IL
J52IM —KB9XN
J68BG —YU1NR
J69JW —XW2A
J7/W2KKZ —W2KKZ
J8/DF2SS —DL2MDZ
JI6KVR —EA5KB
JRØBQD/JD1 —JRØBQD
JT/KF6EIJ —KF6EIJ
JT1FBB —W9JOE
JW1BJA —LA5VK
JW4KQ —LA4KQ
JW7VK —LA7VK
JX6RHA —LA6RHA
JY8ZW —K4ZW/KE9A
K1K —WU1F
KC4AAA —NC6J
KC4AAC —K4MZU
KC4AAD —K4MZU
KC4AAF —K4MZU
KH0A —JF1MIA
KHØS —JA1OGX
KHØU —JA1QNV
KL1SLE —WL7KY
KP2A —W3HNK
KP3Z —WC4E
KP4/JA2EZD —XW2A
KP4KD/HK3 —W3HNK
L2ØXSI —LU6EF
LU1ZC —LU6EF
LX60RL —LX1DA
LY97BK —LY3BK
LZ0L —LZ1KCP
MJØAWR —K2WR
MUØBKA —K4LZE
MWØBKA —K4LZE
NP3D —W3HNK
NP4A —W3HNK
OL4Z —OK2ZU
OM7DX —W3HNK
OZ/DL2HEB/P —DL2HEB
P29PL —VK9NS
P3A —W3HNK
P40AV —K4AVQ
P40E —W3HNK
P40NR —YU1NR
PJ7UQ —W3HNK
PJ8/KG8XV —JH1ROJ
PYØFT —JA1ELY
R1ANF —DL5EBE
R1ANL —UA6AH
R1ANW —K4MZU
R1ANZ —UW1ZC
R1ASP —RA1AD
R1FJA —UW6HS (2)
R1FJC —UW6HS (2)
R1FJV —UA3AGS
R1FJZ —U3AJ
RA0BY —UW6HS (2)
RAØFA —WK6C
RAØFU —W3HNK
RA2FZ —W3HNK
RA6WA —RW6HS (2)
RA6WF —RW6HS (2)
RA9CKQ —W3HNK
RK2FWA —DK4VW
RK9AWT —UA9AB
RSØF —W3HNK
RUØLAX —W3HC/W3HCW
RW9QA —W3HNK
RW9RF —W3HNK
RX1OX —DL6YET
RX9FM —W3HNK
RZ9ATZ —UA9AB
RZ9AZA —UA9AB
SM7CRW —W3HNK
SO2DBO —DL5DBO
SUØERA —SU1ER
SVØLK —DJ4TR
T31BB —DF6FK
T48RCT —SKØUX
T88JA —JA6BSM
T88KH —JM1LJS
T88X —JA6BSM
T91S —DL1SEM
T93Y —W6MD
T95A —K2PF
TA2IJ —DJ9ZB
TA3DD —TA1KA
TE1C —W3HNK
TF/OH4GN —N4GN
TF3IRA —not N4GN
TGØOH (RTTY) — OH6XY
TGØOH (CW/SSB)—OH3JF
TG9AWS —W3HNK
TIØC —W3HNK
TI1C —W3HNK
TI2CF —W3HNK
TI3CF —W3HNK
TI4CF —W3HNK
TJ1GB —K6SLO/WA6SLO
TL8PL —F5LNA
TMØUN —F5HWB
TM5CRO —F5RMY
TP9CE —F6FQK
TS2FBC —DJ1OJ
TT37Y —F6FNU
TT6M —F6FNU
TT8AQ —F6FNU
TT8JFC —WA4ZJB
TT8JWM —N4RXL
TU3F —F6AXP
TZ6HP —JA1OEM
TZ6JA —JA3EMU
UAØAZ —W3HNK
UAØFZ —W3HNK
UAØMF —W3HNK
UA9BA —UA9BA
UA9CUA —W3HNK
UA9OS —W3HNK
UG6GAW —W3HNK
UK7F —W3HNK
UK8FF —W3HNK
UK8OO —W3HNK
UM8OM —RW6HS
UN5J —W3HNK
UN7FK —W3HNK
UN7FZ —W3HNK
UPØF —W3HNK
UP6F —W3HNK
USØHZ —W3HNK
US7ZL —W3HNK
UT5JDS —W3HNK
V26E —AB2E
V26ED —WA3WSJ
V26KW —K3TEJ
V29NR —YU1NR
V29Y —JRØAMD
V31JP —K8JP
V47VTK —WB8VTK
V47XK —LA7XK
V63KU —JA6NL
V73AT —K2CL
V8EA —JH7FQK
VA1S —VE1AL
VI50G —VK3ATL
VK6BAT —N6ZZ
VK9LX —VK2ICV (2)
VK9XU —DL4DBR
VO2PP —G8PP
VP2ENR —YU1NR
VP2ESJ —W5SJ
VP2EST —KT8Y
VP2EY —HB9SL
VP2VFW —W3HNK
VP5/WQ7X —N7MQN
VP5EA —WD5N
VP5JM —W3HNK
VP8CTR —DL5EBE
VP8CXB —GØTQJ
VP9AD —W3HNK
VQ9ZZ —NS1L
VR2MM —JR3JFZ
VU2JBS —VK9NS
VU2ZAP —W3HNK
W6S —WO6T
WP2Z —KU9C
WP4C —W3HNK
WX3MAS —W3OK
XE2MX —K6VNX
XW30 —SMØAGD
XW30A —SMØAGD
YB1AQS —DK7YY
YJØAIO —DL7VRO
YJØAIQ —DL7VRO
YJ8UU —ZL2HE
YKØRJ —YK1AO (2)
YN1GSR/3C1—EA5BYP
YN6WW —JA6VU
YO3AC —W3HNK
YX1D —YV1AVO
Z24S —W3HNK
Z350GBC —NN6C/KM6ON
ZB2FX —G3RFX
ZD8T —AC4IV
ZD8Z —VE3HO
ZP5PT —W3HNK
ZS4PB —W3HNK
ZD9BV —W4FRU
ZF2LH —WB7SND
ZF2MC —N7MQ/N7MCA
ZF2MK —K9MK
ZF2MU —K4BI
ZK1AAT —KQ2T
ZK1DI —DK1RV
ZK1MVI —JA3MVI
ZK1TB —W7TB
ZK2KY —JA3MVI
ZM2K —ZL2IR
ZPØR —W3HNK
ZPØZ —W3HNK
ZP27T —ZP5WYV
ZP5/N3BNA—N3BNA

3D2SJ — Fr Steve Dives MSC, P.O. Box 1354, Suva, FIJI
4K70DWZ — P.O. Box 169, Baku 370000, AZERBAIJAN
5B4AGC — George Beasley, P.O. Box 1344, CY-8133 Paphos, CYPRUS
6V1C — Christian Saint Arroman, B.P. 3263, Dakar, SENEGAL
9H1BD — Herbert Catania, 2 Gatwick Court, Triq It-Turisti, St Paul+s Bay SPB 06, MALTA
9K2SQ — Abdullah Ali al-Sayegh, P.O. Box 38899, Dahiya A. al-Salem 72259, KUWAT
9Z4CT — Nigel Darwent, P.O. Box 20, San Fernando, TRINIDAD
A45XR — Krzysztof Dabrowski, P.O. Box 2038, Muscat 111, OMAN
A71CW — Krzysztof Dabrowski, P.O. Box 22101, Doha, QATAR
CU3EJ — Leonel Gaspar Cardoso Avila, Canada das Almas, P-9700 Angra do Heroismo, Terceira, Acores, PORTUGAL
CU5AM — Jose M.S. Silveira, P.O. Box 10, P-9800 Velas, Acores, PORTUGAL
BD4DL — Strong, P.O. Box 031-103, Shanghai 200031, CHINA
BG4AFV — Ina, P.O. Box 031-103, Shanghai 200031, CHINA
DS4BHW — Pil-Ki Kim, P.O. Box 27, Suncheon 540-600, KOREA
DS5RNM — Lee Joonha, P.O. Box 49, Nam Daegu 705-600, KOREA
DU3/GM4DKO — John Fraser, 318 Caingin, San Rafael, Builacan, PHILIPPINES
DU9RG — Robin U. Go, 818 Acacia Avenue, Ayala Alabang Village, 1780 Muntinlupa citu, PHILIPPINES
E21LLR — Piti Eksitikul, P.O. Box 7, Bangkok 10206, THAILAND
EK6CC — Mamikon, P.O. Box 33, Gyumri 377502, ARMENIA
EK6JJ — P.O. Box 9A/33, Yerevan 375062, ARMENIA
EP8IC — Abdul, P.O. Box 16765-1187, Tehran, IRAN
F6AJA — Jean Michel Duthilleul, 515 Rue du Petit Hem, Bouvignies, Marchiennes, F-59870 FRANCE
FR5HA — J. Lallemand, 173 Rue E. de Parny, F-97421 La Riviere St-Louise, FRANCE
SP3SUN — Piotr Miranski, ul. Rvdza Smiglego 27/5, 65-610 Zielona Gora, POLAND
HH5HK — David K. Hodges, Hopital Bon Samaritan, Limbe, c/o Agape Flights, 7990 15th Street East, Sarasota, FL 34243
HL2TIZ — Wook Han, Sanbondong, Eulji Apt. 615-1102, Kunpo, Kyungkido, 435-040, KOREA
RW6HS — Vasil M. Kasyanenko, P.O. Box 20, Georgievsk, Stavropolsky, Kraj 357800, RUSSIA
SVØLM —Charles L. Lewis, P.O. Box 1001, GR-671 00 Xanthi, GREECE
SV1EET — Takis Papakiriakopoulos, 7-13 Laodikias Str, Vironas, GR-162 32 Athens, GREECE
SV1EPE — Minos Iosif, P.O. Box 75039, GR-176 10 Athens, GREECE
SV5DDR — Maniatakis Vasilis, P.O. Box 329, GR-851 00 Rodos, GREECE
TR8JPF — Jean-Pierre Finet, Camp de Gaulle, B.P. 177, Libreville, GABON
UAØAGI — V.A. Simonchuk, P.O. Box 8662, Krasnoyarsk 660036, RUSSIA
UA2BD — Taras S. Buratevich, P.O. Box 567, Kaliningrad 236000, RUSSIA
VIØANARE — Alan Roocroft, c/o Post Office, Dalveen, QLD 4374, AUSTRALIA
VKØANARE — Tom Stokes, c/o VK1AUS, P.O. Box 2063, Kambah Village, ACT 2902, AUSTRALIA
VK2ICV — Nick Hacko, P.O. Box 730, Parramatta 2124, NSW, AUSTRALIA
VU2SDU — Shaik S. Sadaqathullah, G.P.O. Box 1721, Mannady, Madras Chennai 600 001, INDIA
YK1AO — Omar Shabsigh, P.O. Box 245, Damascus, SYRIA
ZC6A —P.O. Box 5124, Gaza, PALESTINE

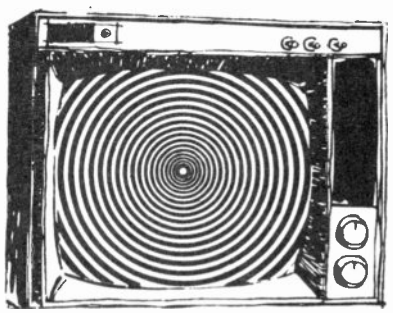
(1) Although K2EWB is listed as a QSL Route for AP2JZB he is not the QSL Manager. Either send your QSL direct to AP2JZB or via K2EWB. Please refer to QSL Information.
(2) Please refer the above addresses for this manager.
(3) Scouts of China, 13/F, 20, Chu-Lun Street, Taipei 104, TAIWAN
(4) This route valid for contacts through 31 December 1997. For contacts after that date please send your QSL requests via SP3SUN.
(5) This route applies for operator Al, F2KN, only!
(6) This route applies for 15-17 December 1997 only!
(7) This route applies for the 1995 CQ World Wide DX Contest. It does NOT apply for 1997!

PBØALB

The *DX News Sheet* reports PBØALB plans to be active from Malaysia for six weeks April-May of 1998 as 9M8CB. Activity will be from Serian on all bands. QSL direct to PBØALB.

N2NL to Guam

The Coast Guard is transferring N2NL to Guam. Dave says he will be there for at least two years and hopes to be active as N2NL/KH2 sometime in the spring. He will operate mostly CW and will be active on most bands and in contests.



RFI & You

JACK ALTHOUSE, K6NY

This month we're going to look at a common problem: The Ham rig turns on the burglar alarm. We'll explain the problem and give advice on how to correct it. Then we'll look at an actual case where the advice didn't work at all in the beginning but where the operator didn't give up, kept trying and found a method that worked.

•

Q: *When I turn on my transmitter, even at low power (50 watts), my burglar alarm goes off. Can I use ferrite beads to stop this?*

A: Yes, in almost all cases they work. The problem is in all those wires that run throughout the house. They come from the various window, door and motion sensors and go into the electronic control box. This box has active IC and transistor circuits that can be triggered by RF voltage. The sensor wires act like antennas, pick up the RF and conduct it to the control box. The active circuits operate with as low as 5 volts power supply voltage and it just takes a volt or two of RF to turn them on. You have to keep this RF out of the control box.

To fix the problem go to the control box and find the sensor cables coming in. You need to put ferrite beads over the cables just as they enter the control box. The easiest to use are the "split beads." These are ferrite beads that have been cut in half. You put the two halves back together over the cable. This way you don't have to take the wires loose as you would if you slipped solid beads over the cable.

The beads come with quarter-inch or half-inch holes. Unfortunately the sensor cable bundles usually are bigger than this. The way to solve this problem is to split the bundle into two or more parts, each less than 1/2 inch diameter. Then put one or more split beads over each of the smaller bundles.

It's also possible for the RF to come in on the 115V AC supply line. The AC wiring goes throughout the house and also can act like an antenna to pick up the RF and conduct it to the control box. If beads on the sensor leads don't cure the problem use some on the AC line also.

•

Q: *I followed your advice and it didn't help at all. My system has a bundle of sensor wires that is less than 1/2 inch diameter. I put six split beads on it and they didn't change a thing. I then put beads on the power cord. That didn't help either. But I had to fix the problem or my wife might divorce me.*

I decided to try a different placement of the beads. There were 13 wires in the cable. I split it into two bundles, one with seven wires; the other with six. I put three beads on each and the problem disappeared, at least at the 50W level. When I put on the amplifier I still had it at 100W.

Next I split the cable into three parts; a bundle of five wires and two bundles of four wires. I put two beads on each bundle. That worked even better. Now I can go to 350W before I have trouble. I think that with a little more work I'll get it up to full power, but this is all I need for my day-to-day operating.

A. Your experience shows that there is another approach to the burglar alarm problem and it may be better. Instead of split beads over the whole cable the use of several split beads over groups of the cable wires may be more effective. In this case it would be more cost effective to use the 1/4" split beads if the bundles can be made 1/4" or less. The 1/4" split beads (Palomar FSB-1/4) have about the same impedance as the 1/2" splits (Palomar FSB-1/2) and cost half as much.

There is a lesson here. Since you can't see the RF directly to see if what you have done helps, it is important to have some other way to measure the effectiveness of the beads. In this case it was measurement of the transmitter power. By testing at 50W, 100W, and 350W it was possible to check the application of the beads each step of the way.

If testing had been done only at 350W it would have appeared that the beads did nothing. If testing had been done at the 10W or 25W level it probably would have been found that the original setup with the whole cable through the beads did improve matters somewhat. You can't always count on your first application of ferrites to stop the problem completely the way closing a window stops the cold air from coming in. They may just lower the window part way. But to solve the problem completely you need to know if they did help and how much. Then you can go on to the next step.

So, one should always measure. Use transmitter power, receiver "S" meter, or some other method.

A second lesson is that it pays to try different arrangements to see which works best in your particular case. There are guiding principles to use to start but there is still a lot of "Black Art" to interference suppression. Dig in there and be a magician.

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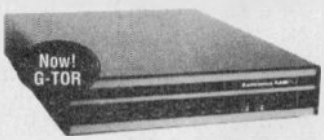

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(AR-446 also shown)

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Writing at 33,000 feet

I won't say you can hear a pin drop, but as frequent flyers know, the MacDonald-Douglas MD-80 is one of the quietest passenger jets ever built. This particular machine, dubbed a Super 80 by its operator American Airlines, has just departed from Chicago O'Hare, headed toward Los Angeles.

Even more interesting, there are only about 30 people on board. The aircraft holds 142. Do you know how big this rather small plane looks with so few passengers and so many open seats? It's like having my own personal "biz-jet" to take me home.

The Captain says our estimated flight time is 4 hours and 8 minutes, and that we should not experience any rough air. There is lots of food and apple juice on board. I have a couple of charged batteries for this old Bondwell 286 laptop. Let's see how much of the March column can be completed at this altitude.

Coordination organization Membership

Recently, Harold L. Deitz, WB9VMY, posed the following concept to the *Repeater Owners Reflector*: "I am looking for opinions on the following idea. Would it be preferable to limit voting membership in a frequency coordination organization to those who own and operate one or more repeaters, being the ones directly affected by coordination policies, or would it be preferable to open voting membership to any person who pays his dues, allowing someone or some group that has no real interest in frequency coordination to be able to change polices and practices that affect those who own and operate repeaters?"

One of the best responses came from Nate Bargmann, KAØRNY. He sees it this way: "Initially, coordinating groups and councils were formed by repeater owners/operators to serve their need, which was to stem the tide of repeaters populating just a small portion of the bandwidth available to repeaters on 2M. As repeaters increased in popularity, coordinating councils found themselves needing to 'coordinate' activities on all repeater frequencies/bands. Then, due to one factor or another, they found themselves essentially involved with all FM activities. This seems to be our situation now with some looking to repeater frequency coordinators to become band plan coordinators, an activity clearly beyond their original scope.

How often do you have a plane ride like this? AA lost money on this one.

"If repeater frequency coordinators perform no other function than recommending frequencies for orderly repeater placement, then I say repeater owners (the individual the frequency was originally coordinated to, not equipment owners) and a club's designated representative(s) (if the coordination is held in the club's name either collectively or by an individual on behalf of the club) should be the allowed voting members.

"If the current repeater frequency coordinators become bandplan coordinators *(ed note: overall spectrum managers),* then any and every licensed amateur must be allowed voting membership as the coordinator is now making decisions affecting other band users, not just repeater owners/operators.

"So perhaps the question is, should frequency coordination extend beyond that needed to place repeaters in an orderly and workable fashion? My thought is that the current frequency coordinating councils have (and should have) no authority (if they have any at all is still another question) over anything other than the nationally recognized (published in the *ARRL Repeater Directory*) repeater sub-bands. Simplex FM on designated simplex channels, weak signal, satellites, packet on non-repeater frequencies, ATV, et al, should be beyond the jurisdiction of frequency coordinators. In the future, perhaps link frequencies should be allocated from some nationally recognized sub-band and not just dropped 'anywhere' as this could impact legitimate non-repeater users on simplex channels.

"Finally, this is a hobby, although we are established as a radio service. So long as we provide effective service in the public good we'll be around. Pursuant to that perhaps we should start treating frequency coordination as part of the hobby as well. Maybe we are locked into a mindset that frequency use can only occur a certain way. What if we were to develop intelligent repeaters that could find an open frequency and tell the users' radios to auto-QSY?

"Perhaps we could eliminate the need for frequency coordination completely! What would be the limitations of such technology? How saturated over the current band usage could 2M really become? 440? I can think of a couple of real negatives right now with such technologies. No more coordination politics on a local, state, regional, or national level. No more repeater fights (repeaters would have the smarts to avoid each other automatically).

"Personally, I think Amateur Radio would better serve itself to resolve the current repeater problems through a dynamic new technology than by making Ham radio more bureaucratic. Which path are we going to take, friends?"

Arizona jammer must pay fine

Hams in and around Phoenix, Arizona, have learned that a man fined by the FCC for malicious interference to area repeaters and other rules violations has finally agreed to pay up. He is Timothy Harold Hoffman and in 1996 he was ordered to pay $6000 for repeated violations, including interference to local repeaters.

The violations were called to the Commission's attention by the Arizona Repeater Association's ARRL-sanctioned Local Interference Committee. After investigation, Hoffman was cited for five specific violations. These included transmitting on Amateur Radio frequencies without a valid operator or station license, and willfully interfering with radio communications.

But it was not easy to get action against Hoffman. According to Lance Halley, KW7LH, it took a multitude of long distance calls by the committee, support from Commission personnel, input from Congress, and even the White House, to get a Notice of Forfeiture and a federal court judgment in the case. Look for a separate in-depth article about this case in an upcoming issue of ***Worldradio***. *—via Arizona Repeater Assn. & KW7LH*

AT&T to fund Kentucky repeaters

There was a silver lining to the clouds that brought heavy flooding to Northern Kentucky in 1997. Amateur Radio's role in providing emergency communication in the wake of the floods has resulted in a windfall for that region's Hams — courtesy of AT&T.

Seventh District Emergency Coordinator John Meyers, N4GNL, of Covington, Kentucky, says AT&T has agreed to spend some $100,000 to set up a VHF repeater, a UHF repeater, antennas, and a shack with air conditioning and heat at one of its cellular telephone sites. Other sites will be equipped as receive-only and linked back to the repeater.

As part of the deal, the Northern Kentucky Amateur Radio Club agreed to cover the electricity and phone bills. Meyers says he's already gotten four Northern Kentucky counties (Campbell, Boon, Kenton and Pendelton) plus the City of Falmouth to pitch in for the utilities at the sites.

Meyers says Amateur Radio was the only means of communication for the first four days of the disaster. Many of the club's members remained on duty to help out during the flood recovery. The efforts of these Hams during and immediately after the flooding attracted the attention and respect of local governmental officials and of AT&T, which saw the possibility of a mutually beneficial arrangement. AT&T had been hoping to gain access to several possible cellular telephone antenna sites that had been off-limits. With the Ham equipment on board, however, the cellular sites gained emergency communication status — just what was needed to get the moratorium lifted on their use by AT&T. "The marriage came together really well."

In addition to the Kentucky repeater, AT&T also plans to set up a similar emergency system for Hams in Southwestern Ohio, which also suffered from this year's flooding. Meyers says AT&T's total commitment is in the area of $300,000. When it's all in place, Meyers says, a huge region in Northern Kentucky, Southwestern Ohio and Southern Indiana will be accessible using a 2W hand-held transceiver. Much of the new system should be in operation by the time you read this. — *ARRL*

Best repeater in town

If you are traveling through Southwestern Pennsylvania, Tony Alvair, KA3VOR, recommends the 145.170 WB3LUC repeater. Tony, secretary of the Uniontown Amateur Radio Club (W3PIE — what a great club call), says the WB3LUC is now in full-time CTCSS access system with requiring a tone of 131.8 Hz required to open the system's receiver.

Tony suggests those passing through the area should also try out the following Repeaters: 147.045+ W3PIE, Wide area coverage; 147.255+ W3PIE, Local Uniontown/ Fayette County Coverage; 443.750+ W3PIE, full-time pl/ctcss TONE is 123.0 Hz.

By the way, if you have a favorite repeater you want the world of Amateur Radio to know about, send the info by e-mail to any of the addresses in the column header.

Beacons, beacons & more beacons

For the VHF DXer, a beacon transmitters is a light shining in the darkness. Some are put up and

maintained by volunteers as a guidepost to let others know when a given band is "open" to areas where that band is not normally heard. Others are commercial operations outside the Ham spectrum but close enough to it so as to be usable as indicators to radio amateurs. This month we spotlight several new beacon systems of interest to the VHF and UHF Ham community.

Let's start in the Southeast, where N4SW reports that he has a pair of new beacons operational using the call sign NS4W/B. Both are located in grid-square EM76vj near Lafollette, TN, at an elevation of 3000' MSL. This site has an excellent view of northwest, north, northeast, east, southeast and south, but is somewhat shaded to the southwest and west.

The 6-meter system is on 50.070 MHz, CW, running about 1/3W to horizontal dipole facing north/south. The 1 1/4-meter beacon can be found on 222.070 MHz, CW, running 3 watts to horizontal omni antenna. The message on both reads "de ns4w/b em76vj in Tennessee" followed by a two-second pause and a five-second tone. It then pauses for three seconds and repeats.

Brandon Anderson tells us about his new N8PUM 6M beacon that is on 50.067 MHz. It's now active from Ishpeming, MI, with an output power of 1 watt into a 4-element yagi pointed North. His e-mail address is n8pum@juno.com

From Robert Homuth, KB7AQD, comes word of an excellent propagation beacon from South America for 10M and 6M propagation. Robert suggests listening daily for "CVH20" on 31.350 MHz. It appears to be a commercial transmitter with a female announcer speaking Spanish.

According to Robert, the transmission originates in Montevideo, Uruguay, and runs 100W to a rooftop dipole array. The antenna site is actually on a skyscraper on top of a mountain peak!

NNJ packet node offers advanced services

With an increased interest in VHF digital communications resulting from the advent of newer APRS applications, having on-air deviation and signal strength testing capabilities would make adjusting one's TNC something that could be done in "armchair" mode from your shack. Thanks to the technical expertise of Lou Gaul, K2YHY, and Bob Andersen, K2BJG, the Sussex County Amateur Radio Club's node stack makes this a reality.

Located 1400' above mean sea level high among the Appalachian Mountains within the confines of grid square FN21oe in Northern New Jersey, this piece of technology sits waiting to hear your signal, measure its strength, and give you a deviation report all from one packet emission. All you have to do is be within "earshot" of the node. Here's how:

If you live in the area, or are in radio range, tune your transceiver to 144.990 MHz. Connect to NNJW or N2ERH-2. At the command prompt, type "MH <Enter>". A list of the last 15 stations heard will fill your screen. Included in the list are deviation and signal strength reports. To minimize your emission's over-deviation, adjust your TNC to read 4.0 kHz. Check your TNC manual for adjustment directions.

Information on interpreting the signal strength report can be obtained via e-mail or via packet radio to N2TTP@N2ERH. *—via Hudson Division Loop, Deb McKay, N2TTP*

Cuba by satellite

For those looking for Cuba via satellite, Bob Daniels, W2GG, reports that Arnie Coro, CO2KK, has returned to RS-12. Coro is said to be active on morning orbits local time in the Americas. His QSL manager is W5WP (ex-WQ5Y). *—via the AMSAT-NA BBS*

Almost home

Well, the laptop's batteries have lasted almost all the way home. It's night and we're just crossing the northeast corner of Albuquerque, New Mexico. The lights of the city seem to spread in a brilliant westward arc from the base of Sandia Mountain. At this point I think I'll just sit and watch the lights below roll by. It does all look so pretty down there from up here.

See you in April, de WA6ITF

Six Meters is not a Dirty Trick!

(Ed Note: I came across this on the W6YX VHF Reflector *and found it very interesting.I asked George if he minded if we reprinted it. George responded that he was happy to share it with you. de BP)*

GEORGE DOWELL, KØFF

If Six Meters seems tough, sometimes uncooperative and unpredictable; it is. But this is by design and is not a dirty trick.

Way back right after WWII when the FCC was getting their act together regarding spectrum allocation of the then "New TV" and FM channels, the ARRL was more or less given the opportunity to select the exact frequency for our band. At that time the FM broadcast band was in the 40 MHz (Mc or Megacycles back then) range. For a time FM broadcast receivers were manufactured to tune both the 42-48 MHz and the 88-108 MHz bands and used the Armstrong patents.

But "Gen." Sarnoff (RCA) wanted it changed to the present 88-108 MHz so that he (NBC) wouldn't have to abide by standards set up by his arch rival, Major Armstrong (the inventor of FM broadcasting, as well as the original Superregen-erative receivers used by everyone in the early days). Well, politics won out and the 40 MHz band was abandoned. Subsequently Armstrong committed suicide over it.

Anyhow, the League could have had the 40 MHz instead of 50MHz band for us, as this really should have been TV channel 1. The old 56 MHz band (5 Meters) had to be given up to make way for the present TV channel 2. It was reported in *QST* at the time that the League was in favor of the higher (50 MHz) band because it felt the 40 MHz frequency would be too similar to 10 Meters and be "just another low band."

They were right. 6 Meters is unlike any other band above it or below it! Indeed it is a challenge, but it is one we chose. So embrace it for better or worse.

Quarter Century Wireless Association, Inc.

John G. Troster, W6ISQ

Morse Code — Does it have a future?

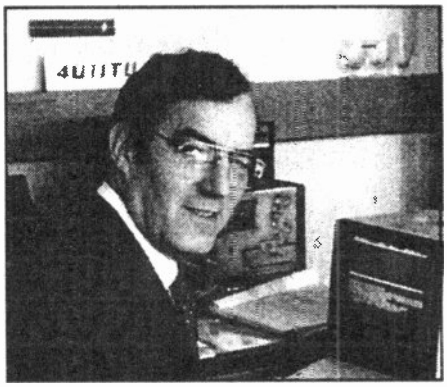
CHARLES DORIAN, W3JPT, QCWA

An issue confronting the Amateur Radio community is whether to retain a requirement for international Morse code on radio frequencies below 30 MHz. I wrote a short article recently on "Why Code," which was printed in Fall 1997 issue of the Quarter Century Wireless Association publication, *QCWA Journal*. If you desire a copy, please send me an e-mail or a letter.

Morse code has been with us for many years and will continue to be used in various places and situations in the future. But what is the problem in the Amateur Radio world?

In 1993 an Amateur Radio group in New Zealand began activities to eliminate the examination requirement in the Amateur Radio portion of the International Radio Regulations. This group solicited the support of the New Zealand delegation to the 1993 World Administrative Radio Conference (WARC) to advance this concept of elimination. Since the issue was not on the agreed agenda for the 1993 Conference, no immediate action was taken but it was placed on the tentative agenda for the 1999 World Radio Conference (WRC-99). The wording for this agenda item does not limit the conference discussion to just the code issue but actually permits almost any other item in the International Radio Regulations concerning Amateur Radio to be discussed and CHANGED, if there is agreement among the countries attending! This is a far cry from just the code examination issue.

The opening of the door to the additional items for discussion in 1999 has caused a number of the Amateur Radio representatives to attend regional and international meetings of the IARU, International Amateur Radio Union, to seriously question whether to open "Pandora's Box." Are we creating greater problems and possibly more onerous changes



Charles Dorian, W3JPT

to our regulations? These issues have been well documented in the reports of the various meetings.

For an excellent presentation of many issues confronting the Amateur Radio community please read the following, which may be found on the IARU pages via the ARRL Web Page:

1. Future of the Amateur Service Committee discussion paper.

2. The three Reports following the release of the above discussion paper.

3. ARRL Letter of 11 Oct. 1996 reporting on the IARU Administrative Council meeting in Tel Aviv, Israel, 06-08 Oct. 1996.

4. ARRL Letter of 19 Sept. 1997 reporting on the IARU Administrative Council Meeting in Beijing, China, 13-15 Sept. 1997.

As a final paper to review, please see the W1AW Bulletin 72 of 21 November, which reports on the conclusions of the 1997 Radio Communication Conference held in Geneva, Switzerland. An extract from this report states, "Two significant Ham radio-related issues failed to make the cut for consideration at WRC-99. For budgetary reasons, the WRC-97 delegates had to limit the WRC-99 agenda only to the most urgent issues. Pushed back to the tentative agenda for WRC-2001 were the possible realignment of the 40-meter band to resolve a conflict between Hams and broadcasters in part of the band (along with possible expansion of broadcasting bands between 4 and 10 MHz), and Article S25 of the International Radio Regulations. Article S25 contains the international regulations specific to Amateur and Amateur-Satellite Services, including the Morse code requirement for operation below 30 MHz. This action will give us more time to sort out if there should be changes to S25 and, if so, what those changes should be.

However, let us go back to a major question of why have a Morse code requirement. At this point I should like you to read my article in the fall 1997 issue of the *QCWA Journal*. In a condensation of the words I wrote, I believe there is a requirement for Amateur Radio operators to have a common and universal understanding of Morse code for "public service communications" especially for emergency and safety situations. It is interesting to note that the WRC-97 delegates approved a resolution encouraging administrations to facilitate the use of Ham radio and other "decentralized means of communications" for disaster mitigation and relief operations. Is this not exactly where Morse code might be used in situations where voice, packet and data communications might not be available as a common mode? Think of the isolated areas in Africa or Asia where advanced technology has not yet arrived.

Search And Rescue Communications

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A couple of weeks ago I walked by a fellow at work attempting to repair a power supply on a personal computer. Something about the scene caught my eye. The power cord was plugged into the supply and he was reaching to disconnect the uninsulated connections on the power switch. I yelled, "STOP!"

He looked up and asked, "Why?" I gave him a condensed safety lesson and basically said, "If you had grabbed those metal connectors, we'd either be peeling you off the wall across the room, or performing CPR." He still didn't understand. I said, "There are lethal voltages on those connectors." He gave some indication of understanding, so I asked if he knew anything about voltage, current, or how the power supply worked. He had no clue.

I took a few moments to draw an elementary picture of what the power supply was and how it was connected into a computer. We briefly explored voltage and current and I believe he got a small grasp of what it's all about. I don't suppose he will understand voltage and current until he gets zapped, hopefully by a non-lethal jolt.

Safety is becoming my increased concern of late. I worry when folk erect antennas or climb towers. When everything goes well, it's still risky. Add adverse weather or uncooperative hardware and the operation could get fatal very quickly. Please include the teaching of SAFE procedures regularly during your training sessions. Address safety EVERY time you teach skills, especially when showing someone how to put up an antenna tower or connect equipment.

Many years ago when I was learning to be an EMT, I was given a bunch of little round stickers that said "Life is Fragile, Handle with Care." I wish I had some of these again because I would stick one on every piece of equipment I could. We can never be too careful. We can never pay too much attention to detail and safety. One mistake and it could be fatal or cause injury that will change how you live. Be safe! Life is fragile!

Field gear

Some months ago there was an online discussion concerning whether or not volunteers should be prohibited from carrying weapons (hand guns, big knives, etc.). The discussion was spirited and ranged from the "always" to the "never." Because it's easier to obtain an Amateur Radio license, we're seeing more and more law enforcement officers joining our ranks. As the discussion pointed out, many jurisdictions require off-duty officers to carry a weapon. So what's a group to do? Carry or not carry?

My personal spin is that I don't want to be in situations that may require someone to be armed. It's similar to working hazardous materials incidents without protective gear. I'm not trained for it, it's not my area of expertise, and I'd prefer not to endanger my life unnecessarily.

I prefer to consider my field "tools" as radios, antennas, coax, etc. I don't need someone hurting themselves while digging through my gear while helping me set up a station. I don't think it adds to our image to carry weapons and I've not talked to any agency that wants Amateur Radio services in such conditions anyway. I know that states (such as Utah) offer concealed carry permits and have certain training requirements to help ensure safety. I'm still not convinced that a short training class makes someone any sort of a weapons expert to where I'd be comfortable saying it's OK to carry a weapon during a public service event.

The bottom line is simply common sense and purpose. If your group is a subset, for example, of a sheriff's office, it may be necessary because you do more than communications. For a communications group (such as ARES), I would carefully consider any event that puts someone at risk — any risk.

Field food

I get a number of catalogs that advertise field equipment and gear. One key element in any grab-and-go bag is food and water. A friend contracted an intestinal parasite while drinking untreated water while camping. It was very unpleasant. He said he thought the water was OK because it was clear and from a fast flowing creek. He was wrong. He now carries his own water, uses a water filter, or boils water before drinking it.

Food is also critical because we need it to function. When we're hungry our performance degrades. It would be nice to send out for food when you've responded to an event or to stop by a fast food place enroute. Much of the time it's not an option so you've got to plan ahead and have something to eat among your field gear.

I've always carried military meals. Many years ago they were C-rations and came in cans. Not much of it was what I could call a good meal. It often tasted bad or had no taste. I had to be extremely hungry to dip into these meals. Currently the field meals of choice are the MRE (meals, ready to eat) goodies.

But there's a catch. Some of them taste good and others don't. My recommendation? Try them before you need them in the field. Some of my favorites include applesauce, cakes, oatmeal bars, escalloped potatoes with Ham, Ham slices, and beef frankfurters. The bread is OK but only with peanut butter or jelly. I learned the hard way when I had to dip into the meals during a camping trip and whatever it was I ate tasted awful.

I'm now a very selective buyer of MREs! There's something else you need to consider with MREs and any food you carry in your field gear. If the temperature fluctuates wildly (from freezing to hot), such as one would find in the trunk of a car, an

MRE becomes mush. It still tastes OK, but the texture is worse than strained baby food, yuck. MREs seem to hold up better when stored at constant temperature and are then taken to the field for use. If you plan on keeping meals in your vehicle, my advice is to replace them once in a while (such as yearly).

Water's in the same boat. If you store it for a long time it becomes "flat." If you pour it between a couple of containers several times, it absorbs air and tastes much better. I've heard stories of water stored in a vehicle, freezing, breaking the container, then melting and either ruining gear in the grab-and-go bag, or dripping away leaving you with no water. Take some time when you pack your gear and select containers that will not be damaged by temperature changes.

New members

I've been asked for recommendations on how to recruit new members. The comment was that a group has been telling folks about their meetings on local nets but can't seem to grow at the same pace as the new Amateur Radio license numbers do.

After thinking back to what worked best during involvement with many volunteer groups, I believe the best solution is what I tried as a Civil Air Patrol squadron commander. We targeted specific people whose skills would be of benefit to the group. We had been doing general "recruiting" but discovered that you get both good and not-so-good members. We tried inviting specific people to the meetings and finding a place they could fit within the group. That seemed to be the best way to grow and fill specific needs. We needed an aerospace education officer so we looked around for some high school science teachers who were interested in aviation.

When we found someone who looked like a good fit to the squadron, we personally invited the person to our meetings. I won't say it worked every time, but it worked enough that the effort was worth while. As I recall, we recruited a testing officer, a goodly number of communicators, and several leadership officers as well. I can't give you statistics comparing targeted recruiting and blind recruiting, but it seems the "targeted" people stayed in the group longer, were focused into a specialty and contributed more to the group, and got up to speed quicker.

Just a gut feeling, but I believe the group that makes specific invitations might fare better in the long run. You also get individuals who may consider their schedule too busy and wouldn't normally volunteer, but when asked, will make time and contribute lots of energy to your group.

Some good articles

There was a great article in the January 1998 issue of *QST* by Ed Hare, W1RFI, concerning the FCC's RF-exposure regulations. Because we're a radio service, we attract questions concerning such topics. I would recommend you dig out this article and use it for a group training meeting. It's well written, contains good information, and it's something that affects Amateur Radio operation.

Another good item for your reading room is an article in the National Association for Search and Rescue's *Response* magazine concerning media relations. It's in the first 1998 issue (Volume 16 Number 1) and the article was penned by Howard M. Paul, who is a member of the Alpine Rescue team of Evergreen, Colorado. Some years ago I put together some media relations guides as suggestions for CAP units and I would say this article was "stolen" from that guide. But it wasn't and I agree fully with his article and suggestions. Howard Paul has spent a great deal of time dealing with the media and with search and rescue. While I don't believe I have ever met him, we think alike when it comes to media relations.

His ideas are pretty much common sense and point out the need for effective media relations. His material is good for any group and I'd recommend it to you. You can contact NASAR's managing editor for information at 6703 Bay Valley Lane, Centreville, VA 22020.

A closing thought

An article in the November 1996 issue of *Fire Engineering* caught my eye. It dealt with the training of volunteers. I'd like to offer you two quotes for your consideration as I end this month's column:

"Volunteering for the fire service is a special kind of commitment; therefore, firefighters must continuously study, train, and perform various forms of professional development throughout their career. For your department to do this effectively, training must be relevant, interesting, and fun."

"Volunteer firefighters are people who want to make a difference. Trained volunteer firefighters are individuals who make a difference."

I believe you could substitute the words "Amateur Radio operator" in place of firefighter and have some interesting thoughts concerning how well your group performs. Until next month, best wishes from Salt Lake City!

Not a macro

The Dec. '97 Station Appearance column text for Richard Perkins, WA7SNY's, station should have included "occasionally a *handkey*" instead of "a hotkey." We thank Richard for pointing out the typo, and we're going back to typing class.

Upcoming traffic

APRIL: Look for the Sun and Fun EEA (experimental aircraft fly-in) in Lakeland, FL.

Correction

The fellow from Georgia, Frank Pitman, who is welcoming all those new FIST members is K1FP. I mangled it in the last article. As a FIST member myself, I should keep the FIST's logo in mind when typing as well as keying: "Accuracy transcends speed."

Accuracy

WA7SNY, Richard, writes to asks, "What does 'TP' mean?" He says he's heard it on the air for the past couple of years and that it has become a fairly common practice when listening at the lower end of 20 Meters. Richard says his Coast Guard CW group does sometimes use 'ZUT' (see last article), and wonders if 'TP' might be the signature of another fraternal group.

The alternative is an accuracy matter. A station I work regularly almost always sends 'pd' as in: 'Tom pd Jerry.' Richard's friends have tried to persuade him that 'TP' is just 'KN.' Any ideas?

Receive station calls

Does everyone know why? Two stations are sent off frequency to exchange traffic. One will send the traffic. The other will receive it. Wherever the Net Control Station (NCS) sends you (up 5 kHz, or down 10 kHz, whatever), it's not a certainty that when you get there the frequency will be free. Your options are to use the frequency anyway because that's what NCS said; and/or, keep moving a bit up or down until the frequency is clear. If you decided on the first option, please send your license back to the FCC. If you decided on the latter option, fine; but now you are both looking, perhaps in different places. One may be looking down and the other up. OK, within some fixed time frame, some limited intelligence, and some confined frequency, you will probably get together. But, there is a protocol which says that the receive station calls and, there is even a reason. The receive station has to hear if he or she is to copy the message. The transmit station must hear enough to make contact and perhaps a fill at the end; but the receive station has to copy the entire message. So, it's up to the receive station to find the frequency where s/he can best hear. Once found, hopefully as close to the NCS assigned frequency as possible, s/he will call for the transmit station.

There is also a protocol for the NCS to send two stations off frequency to pass traffic. Let's review. Off frequency, who will do the calling? Yes, receive! Then, which of the two stations must know the call of the other station when sent off frequency? Again right, receive. Thus, when NCS tells two stations to go off frequency, the receive station's call should precede the transmit station. You would probably agree that whatever you are doing while on a net, perhaps just thinking about the net, you listen up when you hear your call. If you are the receive station, it's already too late, if the NCS has given the transmit station's call first. The best you can do is query the NCS on who he or she wants you to call; and/or go where directed and give a "who needs me" call. When the receive station's call is given first, all is well. Those pioneers who figured out all such little points for traffic handlers and the NTS were wise guys. Very little needs revision.

Reflections

Many stations send traffic to amateurs by listing the name first, followed by the callsign. Ex: Geri Sweeney, N4GHI. I have always wondered why. It might make more sense to address the message to N4GHI, Geri Sweeney. Why? Many traffic handlers, and their calls, are known far and wide. I don't believe more than a call sign would be needed to get a message to Dan McDonald, W1PEX. But there are stations who don't handle much traffic and do look him up in the callbook and include a complete address when servicing, and/or sending a message back to Dan.

Let's assume you are copying a message for someone you know and thus, won't need a name and address. Let's say I'm on the Fourth Region Net (4RN) and am receiving traffic for Virginia. As soon as I hear a familiar call that I know I won't need the name and address, as he or she will probably be on the Virginia Net when I get back, I would like to skip on to the text. How can I let the sending station know?

Traffic handlers with QSK can be stopped with a few dits from the receive station. When the transmit stops sending, all the receive station has to do is send a break (BT). This could also happen with SSB, if the sending operator would just pause a moment after the call. A break, in CW, on the address section indicates the sender should move on to the text. The receive is just anticipating the transmit's break.

Thus, if the call sign preceded the name rather than followed it, time could be saved. There are exceptions. Suppose you are sending an anniversary (or any other) wish to several people and want to include a callsign. If you listed the call first, the others would probably not be included when the message was delivered. Thus, as with all other segments of traffic handling, you are invited to think about what you are doing and why.

Counting traffic

In the beginning a small group of amateurs used Amateur Radio as their laboratory. They were on the leading edge of science. A larger altruistic group found that they could use Amateur Radio communication to be of use to their communities. They could help in emergencies, and/or disasters. They could even practice by assisting in community events, like a marathon or Fourth of July function. Since sending messages (traffic) brought a sense of accomplishment, and was an enjoyable activity, why not encourage

folks to exchange messages on a daily basis? To be of maximum value, a few procedures were established.

And it came to pass that traffic (messages) were counted. Why? Was it to show the regulators of the air waves that lots of folks were ready to support their community? Was it because most folks like to get recognition for their efforts, if only a certificate?

Today, messages are counted so; 1) A PSHR (Public Service Honor Roll) report can be sent to the SEC (Section Emergency Manager), who will then send a Section report to ARRL for publication. 2) A station activity report (SAR) can be sent to the Section Traffic Manager, who will then send a Section report to the ARRL, who will publish the data in *QST*. 2) Section Traffic Managers can hand out various certificates for: originating traffic, sending reports, and the top honor — for making BPL (Brass Pounder League). To make BPL, a station needs to have 500 points in one month. Three times (or 3 months), and you can receive a neat medal medallion.

Even nets count points. Why? Net managers send reports to the STM each month telling how many pieces of traffic were passed (QTC), how many stations checked in (QNI), and how long it took to pass the traffic (QND). This info is very interesting to the net manager, or STM, if s/he bothers to track corresponding months, year to year. This is easy with computers and a good program (like the one my husband wrote). Many Sections send these net stats as part of the Section Manager's report in *QST*, Division News.

Several years ago, listing 'Book' traffic was revised. This was simply announced from above one day. Why? Did someone decide traffic handlers needed more points? OK, all else being equal, why not?

The founders of our traffic system decided to count Book traffic as 1 message for every 3 addresses. That's because the preamble, the text, and often the signature are the same. Therefore, it takes a lot less time to send these messages. If we say that the average message to the average traffic handler takes approximately 3 minutes to relay, a Book of 3 would also take approximately 3 minutes. That's why the founders decided to count a Book of 3 as one message. Books are excellent usage of time; and, it's really boring to sit and copy the exact same message over and over and over...

OK, I can understand why stations want more points. Counting Books the new way may make a few more BPLs. What I can't understand is why it was decided that traffic should be listed on nets as full 'new' count (a book of 9 would have been listed as 3 on a net. It's now supposed to be listed as 9). Why do we bother to tell the Net Control Station (NCS) how many pieces of traffic we have? One would suppose that's so s/he can run the net better; as opposed to simply counting more traffic for the net.

Does the new way improve net performance? No. In fact, it acts as a detriment. One essential element which a good NCS uses is timing. S/he needs to know approximately how long any two stations will be off frequency in order to clear all the traffic between numerous checkins. After two stations are sent off to relay traffic, a third station is often sent to await one of the first two. That saves one station from having to return (time), and the NCS from having to check him back in and out. If the NCS is going to send a station to wait, s/he won't want him waiting long. If you have sent two stations off to pass traffic with 6 messages, it will be a few minutes. No sense sending someone to wait just yet. Better to pair up two other stations. Even if you are counting 2 minutes per message, they should take about 12 minutes. But, if that happened to be a Book of 6, it will take less than half the time. 3) A good NCS has a sense of timing. If the net isn't busy, it won't matter much; but, if you think of it as an organized game where you can continually tweak your deportment, you want, you need a good NCS. Traffic handling is a team game. So, the first problem with listing Book traffic the new way is not knowing how long any station will be off frequency. This causes an NCS's whole sense of timing is be askew.

Another problem that develops for the NCS is trying to figure out how liaison stations will be needed: Ex. On 4RN (Virginia, the Carolinas, Georgia, and Florida), the station from Florida checks in with 15 for EAN. The station from Georgia checks in with 12 for EAN. Others check in with a few more. The NCS says, "Gee, the EAN station won't have time to pick up all those messages. I better ask someone to go along and help." Then, it turns out it's Book traffic, and one station could have very easily handled it with time to spare. We do want to encourage everyone to play and help; but, we seem to be running out of participants. We need to keep their help for a time when it's needed.

I used to harp on this a lot. Many stations said they agreed with me. What has brought it to mind again is that an NCS asked me for the 'total count.' He wanted to be able to send along the extra points to the net manger on his report. I have encouraged stations on my CW net to list traffic the 'old' way. When NCS, I count traffic the old way. I list traffic on nets the 'old' way. This is my first try at passive resistance to a rule I don't believe in.

CW Slow Speed Traffic Nets

ITN (IL)	7:00 p.m.	3680 D
MSSN (MN)	6:00 p.m.	3710 D
TSN (TN)	8:30 p.m.	3682 M-F
WNN (WI)	6:00 p.m.	3723 D
WSSN (WI)	6:30 p.m.	3645 D
FISTS(MI)	9:00 p.m.	3682 T/TH

Local times. Let me know of any slow speed traffic nets in your area. Look for Eastern Area nets in the next article.

P.S.

The WNN (Wisconsin Novice Net) has created a neat little booklet which the Net Manager, KA9GBG, sends to new checkins. I'm sure Rob would send one to any net manager requesting it to use as an example to create their own. It would also be very useful to see such an example on a Web Page for those using Internet.

9K2ZZ

The DX News Sheet reports 9K2ZZ is once again active from Kuwait until December 1998. QSL via W8CNL, direct only.

Lorraine S. Matthew, N4ZCF
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In accordance with its primary mission of emergency communications, Army MARS closed 1997 with the largest MARS exercise in its history. Rolling Thunder 97 began on 01 December and closed on 07 December with a nationwide scenario and participation from all regions.

What made this exercise so unique and exciting for Army MARS members and members of all three MARS services, was the scope of inter-service and inter-agency involvement at the local, state, and national levels. The exercise was well received by the MARS members of all three services, by Amateur Radio organizations, and by the major national disaster relief agencies. With this favorable reception came very generous participation from all of these parties.

The scenario for Rolling Thunder 97 centered upon a massive earthquake with its epicenter at Marked Tree, AR, involving areas along the New Madrid Fault, which roughly parallels the Mississippi River. It is well-known to scientists that an earthquake along this fault is "due" and would cause havoc such as was described in the exercise scenario. In the winter of 1811-12, the New Madrid Fault was the site of multiple major earthquakes. All eighteen earthquakes were felt as far away as Washington, DC and they rang the church bells in Boston, MA.

Devastation of an area about 150 miles long and 50 miles wide occurred. During the 1800s, however, the area was sparsely populated and the buildings were simple cabins and sheds. Even with the devastation, the people were able to literally pick up the pieces and rebuild their homes and their lives. Today the area is densely populated with large cities and millions of people. The effect would be enormous, as was reflected in the exercise scenario.

The scenario called for almost 3,000 fatalities, 9,000 serious trauma victims, 15,000 minor injuries and the displacement of more than 55,000 people. There was severe structural destruction to buildings and transportation routes and facilities and all utilities and communications were closed down. MARS members in the affected areas were called upon to operate under those circumstances. They were limited in use to VHF/HF radio on emergency power. Thus, again, radio is, and will always be, the basic means for getting information out of a devastated area.

This basis for communication has proven true in all major catastrophes. In the Kobe, Japan, earthquake, officials meant to rely upon cellular phones as their major means of communication. They had no plans whatsoever to use radio. Radio operators on the scene rescued their efforts when cell phones became so impacted that they were completely unusable. Oklahoma City emergency relief workers found the same problem. I became concerned when, following a recent Arizona State emergency communications exercise, as the local county EOC personnel discussed needs, one of the first items they listed was the need for more cell phones. However, they are also installing exterior antennas for those of us from ARES or RACES who will supply the radio communications. Thus they recognize the need for both methods of communication.

As the network of MARS members expanded to beyond the emergency area, the use of other means of communications was authorized. Army MARS remains committed to a blend of basic or "old" technology with all the newer technologies that are available.

The new region network concept was put into practice for this exercise. Indeed, the propagation went long so that when region 4 needed to get information and messages out, region 7 MARS members were able to do the relays and move the traffic successfully.

In conjunction with the SHARES exercise 05 December, Army MARS declared support for a supposed severe earthquake 20 miles southwest of Las Vegas. Again the restrictions were assumed for practicality of the exercise.

The purpose of the Rolling Thunder 97 exercise was to provide an opportunity for Army MARS and its sister MARS services, in conjunction with local, state, and federal agencies, to test emergency communications capabilities with MARS, to provide EEI reports for the disaster relief agencies, and to provide common emergency links between them in response to catastrophic events. This, indeed, is the heart and purpose of every emergency communications event whether it is the real thing or for practice.

The Rolling Thunder 97 exercise was designed to be a major inter-service and inter-agency proof of concept exercise in preparation for a much larger scale exercise being considered for 1998 and to prepare for actual disaster situations.

Chief Sutton made the following statement as part of his Command Net notes.

"Initial observations and reports validate that much was learned in the Rolling Thunder 97 exercise. On the other side of the coin, all has not been perfect. There were a couple of situations that needed real-time corrections and some other areas that need to be addressed...There are more improvements that need to be made in a number of areas."

The fact that improvements and corrections are needed is indicative of the need for exercises such as this one. I had an emergency officer once remark that when the disaster hits, the emergency plan never fully covers it. Initiative is always needed for some facet or other.

The fact that improvements and corrections are needed validates the results of the exercise itself. Any good exercise stretches the capabilities of the participating groups and in stretching the capabilities there will be challenges which may or may not be adequately met.

As Chief Sutton said further, continuing his thought that more improvements needed to be made in a number of areas...

"That's expected and, frankly, desired as a perfectly executed exercise should be considered a failure."

In looking forward to more such exercises in 1998, each MARS member is looking at his or her performance in this past exercise — looking at areas in which each one of us can improve.

The spirit of Army MARS members thus united will carry us all forward — Proud, Professional, and Ready.

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

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 1st 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

This month ... Baton Rouge Amateur Radio Club, from Baton Rouge, LA, 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.

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. & Telorna 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

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 Humbolt 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 142, Pomona, CA 91769. 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 3rd Thurs./monthly, 7:30 p.m., Red Cross Bldg., 1450 11th St., Santa Monica, CA. Net every Tues., 8 p.m., 146.67(-). 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

Indian River ARC, Inc., (IRARC). 597 Capri Rd., Cocoa Beach, FL 32931-3011. Meets 1st Thurs./monthly, 7:30 p.m., Community Church of the Nazarene, 400 Crockett Blvd., Merritt Island, FL. 3/98

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

GEORGIA

Dalton Amateur Radio Club, Inc., (DARC). P.O. Box 143, Dalton, GA 30722-0143. Meets 4th Mon./monthly, 7:30 p.m., Magistrate Court Bldg., corner of Waugh St. & Thornton Ave., Dalton, GA. Info: Harold Jones, N4OTC, 706/673-2291. 3/98

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) 634-6077. 3/98

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.w0sv.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 Museum & Cultural Cntr., 1477 Hwy 395 North, 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 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(+) W7UFM. Info: Tom Hamilton, WD6EAW, (503) 883-2736. 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

Wires & Pliers

From out of the past — antennas with a new twist

BILL PETLOWANY, K6NO

If you have any interest in antennas at all, fasten your seat belts and hang on to your hats, because what you are about to read here is going to blow you away. Conventional wisdom concerning antenna matching and resonating is about to be shattered and the principles revealed here might just be the start of a new chapter in the field of antenna design.

The heavy 40-meter gift

The path leading to my discovery started with the four-element 40-meter antenna given to me by K6SG in 1995 after it had been damaged in a severe storm. I loaded the pieces into the back of my Chevy pickup, drove two houses down our street and, with George's help, unloaded them onto some saw-horses in my side yard.

During the next few months I'd occasionally go out and look at the huge pile of aluminum and wonder if my Rohn 25 tower would tolerate the additional weight of such an antenna if I were somehow able to put it together again. I think I realized subconsciously that adding that much more weight to my tower was not a good idea.

On one such occasion, as I looked at the linear loading on one of the elements, I was struck by the complexity of it all and how much weight was added to the antenna as a result. I clearly remember thinking at that moment, "There must be a better way to do this." It wasn't until several weeks later, however, that I was able to work on the problem of simplifying the antenna.

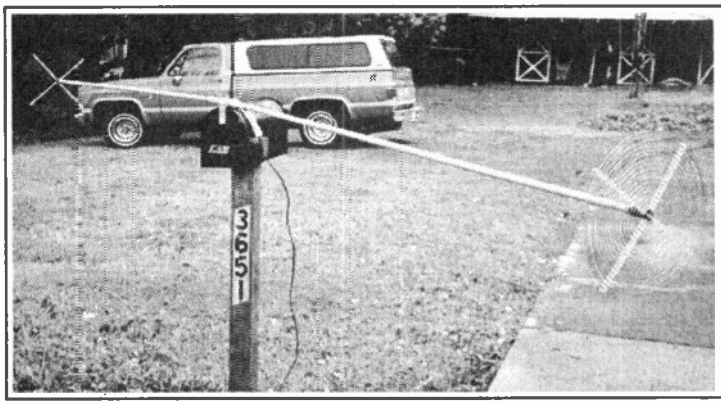
Experiments with 2M antennas

At that time I borrowed an MFJ-259 SWR analyzer from K6SG and started to build some test antennas on 2 Meters. I fashioned the antennas from eight-gauge aluminum wire and proceeded to test the methods most commonly used to resonate them when they were too short to be self-resonant.

I experimented with inductors placed at various places along the elements, end-loading capacitors, wires hanging from the ends of the elements, folded-back elements and, yes, linear loading too, but I didn't feel that I had made any progress toward "a better way to do this." In frustration, I returned the SWR analyzer to K6SG.

After a few weeks of not giving the idea much more thought, I borrowed George's analyzer again because I had the uneasy feeling that I had missed something in my earlier experiments. As I reviewed the results of the various things that I had tried, I noted that hanging wires from the ends of the elements had proved to be not only simple, but effective as well.

In an attempt to make the hanging wires more compact I wound them into coils and re-attached them to the ends of the elements. The coils of wire then had little effect on the resonant frequency of the short antenna. In theory, it would take infinitely large inductances placed at the ends of the short dipole elements to tune the antenna to resonance, so the results were not at all surprising.



12-foot-long 40M dipole on mailbox

Resurrected from the junk-box

At this point in my experimenting I thought about my late father-in-law, W8TS. He was into Amateur Radio before 1920 — so early, in fact, that he didn't need a license to operate. I recalled that in the past he had built antenna tuners using some very unusual coils.

Like many other Hams, I never throw anything away, so I still had one of his home-made coils in my junk box. I had looked at the coil many times and had no real use for it, but for sentimental reasons I just couldn't throw the coil away. I decided to try winding coils similar to his by using the lengths of the hanging wires.

I wound the coils in a spiral fashion by starting a turn with a very small diameter and winding each successive turn with a slightly larger diameter until the wire lengths were used up. The completed coils then had a pancake shape with all of the turns in the same plane.

I did not expect these coils to react any differently than the previous ones. Much to my surprise, when I attached them to the ends of the short dipole the resonant frequency was lowered somewhat, although not nearly as much as the hanging wires themselves.

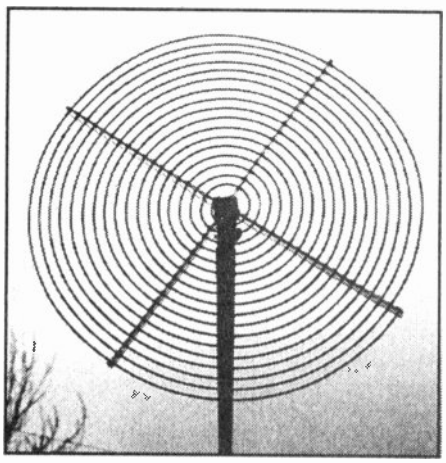
The Petlowany Principle

The unexpected results of this test

prompted me to many more experiments with spiral-wound coils and caused me to formulate what I like to call (due to my overly-modest nature, no doubt) "The Petlowany Principle."

It states that "if a length of wire is wound into a spiral-shaped coil and excited by a radio frequency current connected to the innermost portion of the coil, it will then, and only then, exhibit RF characteristics that closely approximate those of a resonant linear wire of the same length."

The shortest self-resonant linear length of wire is not the half-wave dipole as one might mistakenly assume, but instead, a wire one quarter of a wavelength long. Vertical antennas of that length are commonly used by many amateurs. I used wires 1/4 wavelength long in each of the spiral coils that I tested in an effort to keep the size and weight of the coils to a minimum. However, spiral coils wound with wires with resonant lengths greater than 1/4 wave-length also exhibit RF characteristics similar to the linear lengths used.



Close-up of one spiral tuning coil for 12-foot 40 Meter dipole.

To further test the spiral coils, I built a full size half-wave dipole and also a 1/4 wave dipole for 2 Meters. I tuned the short antenna to resonance on 2 Meters with two spiral coils. Each coil was made from a length of wire about 1/4 wavelength long. They were then connected to each end of the short dipole. I trimmed off equal lengths of wire from both coils to tune the short antenna to the same frequency as the half-wave dipole.

On-the-air tests on 2 Meters with KI6O indicated that the transmitted signal strengths of the short dipole were equal to or better than the full half-wave antenna. Because the "on-the-air" tests were crude at best, I don't make the claim that the short antenna had any gain, but in any case, it was no worse than the full-size antenna.

Moving on to 20 & 40M

To test the spiral coils on an antenna for use in the HF Ham bands, I then constructed a full-size 20-meter dipole from aluminum tubing and by adjusting the lengths of the elements resonated it to 14 MHz. I then took two lengths of wire, each slightly longer than 1/4 wavelength on 40 Meters, wound them into spiral coils and attached them to the ends of the antenna.

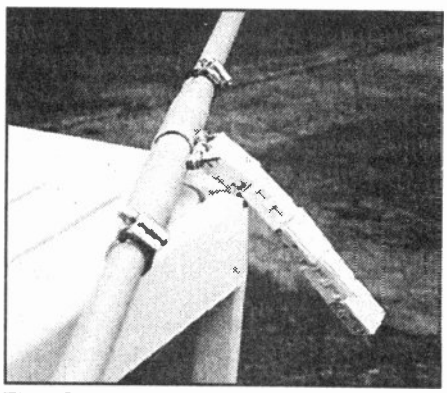
By trimming off equal lengths of wire from the outside turns of each coil I was able to resonate the antenna to 7040 kHz. Amazingly, the antenna was also still tuned to the 20-meter band, although the resonant frequency was lowered somewhat by the capacitive end loading that resulted from attaching the coils.

As amazing as the resonating capabilities of spiral coils appeared to be, I found its matching abilities even more remarkable. When the 20-meter dipole was tuned to 14 MHz, it presented a fairly good match to the 50-ohm line feeding it. The SWR was somewhat greater than 1 to 1. On 40 Meters, however, the match was much better than on 20 Meters and was about 1 to 1.

The 1/4 wavelength 40-meter dipole antenna would normally have a radiation resistance of about 14 Ohms. The radiation resistance of the short 40-meter dipole was increased to 50 Ohms by the use of the spiral coils and resulted in a much better match to the 50-ohm transmission line. The RF current on the antenna "sees the spiral coils" as simply more linear wire and the additional radiation resistance presented by that wire contributes to the overall radiation resistance of the system.

In the process of checking the SWR on 7040 kHz, I had reduced my power output to about 10 Watts so as not to cause any unnecessary interference. When I sent my call to identify, a station in southern California called and we had a short QSO. He surprised me by giving me a 569 signal report. At the height of the antenna (about 30 feet), the power level, and the time of day (mid-afternoon), I was not expecting to be heard at all. Apparently, in spite of its unconventional method of tuning, the short 40-meter dipole could also radiate quite well.

The bandwidth of the 40-meter antenna over a 2-to-1 SWR range was about 80 kHz. The coils were wound with bare aluminum wire that measured .061 inches in diameter and were built with a spacing between turns of about one wire diameter. Subsequent tests with other wire diameters and spacings indicate that the bandwidth can be improved significantly by using larger wire diameters and greater spacing between turns. It is also important to wind the coils with the diameter for the innermost starting turn to be as small as possible if the maximum bandwidth is to be realized.



Feedpoint current balun

Testing out the coils

I have not made any tests to measure the improvement in efficiency to be gained by using the spiral coils, but since they are not connected in series with the high current portions of the antenna, their use can help to reduce the losses normally associated with matching networks, loading coils and linear loading schemes.

During my testing of the spiral coils, I found that their resonant frequency was little affected by the length of the linear portion of the short dipole. The antenna length can literally be from inches long to just short of full half-wave resonant size with only small adjustments to the wire lengths in the coils necessary to achieve resonance. I also found that the radiation resistance was always very nearly 50 Ohms, regardless of the length of the linear portion of the antenna.

I have given much thought to the spiral coils and their behavior in an attempt to better understand how they function. I have concluded that, due to the unique physical and electrical characteristics of the coils, they act as low impedance series-resonant circuits connected to the ends of the antenna. The linear portions of the dipole are simply extensions of the transmission line which is delivering current to the coils. Due to the low impedance nature of the coils the linear portions of the antenna are carrying large RF currents. If the linear portions are long enough in terms of the wavelength of the applied RF current, an appreciable amount of radiation takes place resulting in an efficient antenna.

What does it mean?

How can the amateur take advantage of the spiral coils with their unique characteristics to improve his antenna systems?

He will now be able to resonate a short antenna using an inductor placed at the ends of the elements which, according to conventional wisdom, would not have been possible with anything other than an infinitely large inductor. It is now possible to build very short resonant antennas using coils that do not introduce major losses and that are not impossible to build.

Short dipoles or short monopoles resonated in this way are resonant at two frequencies. One frequency is essentially that of the linear portion of the radiator, the other is that set by the end resonating coils.

Multiband antennas are possible by using multiple coils to resonate the short linear portion of the antenna at the desired frequencies provided that sufficient spacing between coils is allowed to prevent detuning of the individual coils. The desired frequencies need not be harmonically related.

Broadbanding of an antenna for a particular frequency range is possible by the use of multiple coils that are all tuned within the desired range of frequencies. Again, to prevent detuning, adequate spacing between coils must be provided.

The driven element of a parasitic array can be resonated and matched to the transmission line simply by the use of such coils. In fact, the parasitic elements of such an array can also be tuned as directors and reflectors in this manner.

Short vertical antennas (such as a short tower one might wish to use as a radiator on 160 Meters) can be resonated to the desired frequency simply by adding the appropriate spiral coil consisting of a wire length of approximately 1/4 wave attached to the uppermost portion of the tower or its mast. Doing so will increase the radiation resistance at the base of the tower resulting in improved efficiency.

How well does it work?

I have included photographs of a 12-foot-long 40-meter dipole built with spiral coils for use in my upstairs hamshack. The height above ground of the antenna was approximately 12 feet and, using only exciter level power (100 Watts) I was able to work stations in the U.S. and Canada as well as Japan and Fiji.

What's next?

I believe that there is much more to be learned about spiral coils and their RF characteristics and I hope that my work with the coils has proved to be thought-provoking. If only a few of you have been inspired to further experiment with the concept, writing this article will have been worthwhile.

Oh, I almost forgot! You might be wondering what became of the 40-meter antenna which precipitated all of the experiments with the spiral coils. Well, the antenna is still patiently waiting for me, but these spiral coils have proved to be such a fascinating distraction that I must further explore some or all of the possibilities I have suggested before I can get back to modifying it.

I would like to acknowledge the help and encouragement of the following radio amateurs: My late father-in-law Fritz, W8TS, George, K6SG, Jay, W6GO, Peter, W6QEU, Derek, K7FF and my wife Carolyn, K8TFR.

SSB Net FN 42

N1VHL reports a new 6-meter SSB net on 50.275 Sunday mornings at 14:30 UTC in the Boston, MA area (grid square FN 42). The net is informal to see how many people can be heard. — *N1VHL; Newsline*

The Youth Forum

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http://www.swcp.com/~n5zgt

Awards and free tuition money!

As the 1997-98 school year begins to draw to a close, Seniors are deciding where they will pursue their higher education, admission and scholarship applications are being filled in and mailed, and anticipation is growing. But as most may know, college isn't cheap! What if I told you there are scholarships available to just Amateur Radio operators that will help you pay for tuition and books? Well, I am! Read carefully, and please note the important deadlines.

FAR Scholarships

Foundation for Amateur Radio (FAR) will once again be administering 66 scholarships ranging from $500-$2500 for the academic year 1997-98 to assist radio amateurs. Hams can compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college, or technical school.

The Foundation is composed of over 75 local area Amateur Radio clubs. It fully funds nine of these scholarships with the income from grants and its annual hamfest. The remaining 57 are administered by the Foundation without cost to the various donors. For more information and an application send a self-addressed stamped envelope to:

Foundation for
Amateur Radio Scholarships
6903 Rhode Island Ave.
College Park, MD 20740

There was no deadline given for this scholarship at the time this column was being written. Be sure to send for an application right away!

DARA Scholarships

The Dayton Amateur Radio Association (DARA) is now accepting applications for their annual scholarships, which will be awarded in amounts up to $2000 in June 1998. These scholarships are open to any FCC-licensed Amateur Radio operator graduating from high school in 1998. There are no restrictions on the course of study planned by the student, nor does he or she necessarily need to be enrolled in a four-year program. The awards are made on the basis of financial need, scholastic achievement, contributions to Amateur Radio and community involvement. Applications must be postmarked no later than **01 June 1998.** For more information or to obtain a DARA Scholarship application, send a self-addressed stamped envelope to:

DARA Scholarships
45 Cinnamon Ct.
Springboro, OH 45066

I urge everyone who is college-bound to apply for these scholarships as soon as possible! If you do not think you are eligible for any of the scholarships available, send an application anyway! There is nothing to lose, except for a few 32-cent stamps, and you could get a scholarship toward your post-secondary education in return.

Several other Amateur Radio clubs offer scholarships as well. Ask your local clubs if they offer any, and be sure to take advantage of them!

1998 Newsline Young Ham of the Year Award

The Newsline Young Ham of the Year Award is the only national award bestowed upon one Amateur Radio operator who is the age of eighteen or younger for his or her efforts and contributions toward the betterment of Amateur Radio. Do you know someone who deserves such an honor? Nominate him or her! The nomination period for the 1998 Young Ham of the Year Award ends **30 June 1998.** To obtain the application, please send a self-addressed stamped envelope to Mr. Bill Pasternak, WA6ITF, 28197 Robin Ave., Santa Clarita, CA 91350 or e-mail him at newsline@ix.net com.com. If you have access to the world wide web, point your browser to the Amateur Radio Newsline homepage via http://www.arnewsline.org

Amateur Radio Newsline, known for its weekly Amateur Radio information and news stories, sponsors the Young Ham of the Year Award. Yaesu and *CQ* Magazine are its corporate underwriters. Below is a list of past amateurs who have been awarded this prestigious award:

1986 Shawn Alan Wakefield, WK5P, Bartlesville, OK
1987 David Rosenman, KA9PMK, Muncie, IN
1988 Jonathan Binstock, NK3D, Potomac, MD
1989 Erin McGinnis, KAØWTE, Topeka, KS
1990 Mary Alestra, KB2IGG, Staten Island, NY
1991 Richard S. "Sammy" Garrett, AAØCR, St. Louis, MO
1992 Angela (Angie) Fischer KBØHXY, St. Louis, MO
1993 Kevin Boudreaux, N5XMH, New Orleans, LA
1994 Allison Zettwoch KD4CKP, Louisville, KY
1995 Adam Weyhaupt N9MEZ, Alton, IL
1996 Toby Metz KB7UIM, Boise, ID
1997 Brian Mileshosky N5ZGT, Albuquerque, NM

Remember, this honor is awarded to one person for his or her efforts toward the betterment of Amateur Radio. Having become an Extra at the age of nine isn't exactly the ticket to being awarded the Young Ham of the Year, but being active in an Amateur Radio club, an ARES group, recruiting new people to the hobby, etc. sure helps! I encourage every young amateur to pursue this award, and if you know someone who deserves this award, be sure to nominate him or her! Good luck, and I'll be looking forward to meeting the

1998 Newsline Young Ham of the Year when he or she is honored this summer!

Middle School Ham Radio Program

The Hale Middle School in Woodland Hills, California, has become the first public school in California to offer Amateur Radio as part of the regular curriculum! The first-semester class is being taught by Bob Lavin, K6BOB, who also operates the Foursquare Radio Amateur Youth club in the city of Oxnard.

In Woodland Hills, Lavin has the full support of the school's administration and the Parent, Teacher, Student Association. The Association even donated $3,000 to support the new class as well as helping to equip an emergency communications center for the school.

In 1998 the school plans on adding more classes and an on-campus radio club as well. Lavin says he hopes to eventually have five classes going each semester until he can get all the students licensed. — *via Amateur Radio Newsline,K6BOB*

That's all for this issue! I would like to thank everyone who has been e-mailing and writing me. I appreciate it! Keep those letters and e-mails coming, and let me know if there is anything I can feature in a future Youth Forum column.

73, Brian, N5ZGT

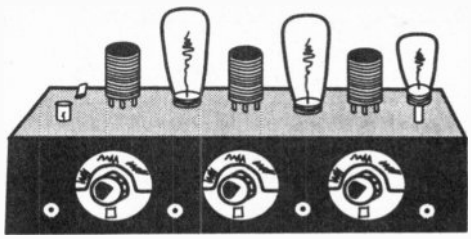
YHOTY winner, N5ZGT, marches on

The 1997 *Newsline* Young Ham of the Year winner is not resting on his past acheivements. Under the leadership of Brian Milishosky, N5ZGT, Albuquerque, NM, Explorer Post 296 has had four young Explorers upgrade their licenses recently.

Jay Miller, WA5WHN, said this group will participate in a major VHF contest in the near future. Operation will probably concentrate on 6M and 2M CW and SSB.

Explorer Post 296 is jointly sponsored by the Albuquerque Amateur Radio Club and the local Caravan Club. The Caravan Club is one of New Mexico's oldest Amateur Radio organizations, dating back to the late 1950s, when meetings were held on 29.6 MHz AM as area hams used to convoy everywhere together on weekends. — *WA5WHN, Newsline*

OLD-TIME RADIO



Repeaters???

ALONZO K. TRAMMELL, W6QZE

Many people are unaware of the FM repeater that was available to us during WWII.

When we secured the island of Mindoro in the Philippines, we returned to the south shore of the island. (Incidentally the town there was named "San Jose.") The town on the north shore was called Calipan. There was a brewery there but, because of the war, there was nothing available to make beer!

One of our doctors looked at the drink, called Tuba, the Filipinos made from the sap of the palm trees. He decided that, if distilled, it would make a very reasonable gin!

We left "C" company of the 2nd Battalion, 21st Infantry there to occupy the town and, of course, to make sure the brewery operated!

About once a week a sailboat would arrive on the south shore, loaded to the gunnels with kegs of "Calipan" gin. We set up three hospital tents down on the beach for clubs — one for the enlisted men, one for the First Three Graders, and of course an Officer's Club.

We had a sawmill company with us and they made us bars and dance floors of Philippine mahogany. We made mugs from bamboo, and there was a little trio from San Jose (Mindoro), a girl singer with two guitar-playing brothers, who provided entertainment.

To maintain contact with the north shore, we put in a repeater system using the SCR-300 walkie-talkie. Each repeater consisted of two SCR-300s cabled together. (A liaison plane would go out every so often to replace the batteries.)

Following the war, stationed at Sandia Base, New Mexico, I moonlighted at one of the local TV stations (1950) and the station had a transmitter site on top of Sandia Crest (10,700 ft. above sea level and about 4500 ft. above average terrain).

Some of the local Hams and I decided to put a repeater up at the transmitter site. We used a surplus aircraft transceiver (AM) and were told by the FCC that first, we had to have an operator on duty at all times (all of the TV engineers at the transmitter site were Hams so this was not a problem) and secondly, we would have to ID each time the repeater transmitted. This, of course, appeared to be a problem.

Wayne Coy, an Albuquerque resident, was at that time Chairman of the FCC. While visiting us one evening at the station, we discussed the repeater and the problem of IDing. The set had an MCW capability, so we designed a little encoding wheel driven by a small electric motor and let that key a microswitch, sending out the station call sign whenever anyone transmitted via the repeater.

The audio level of the CW was set approximately 6 dbv (half volume) below the voice audio. This made the ID readable but it did not interfere with the voice audio.

Wayne Coy took the idea back to Washington and about two weeks later we had a license for the repeater. I have no way of knowing whether this was the original CW IDer or not.

Coast Guard Net

The Coast Guard net meets Saturdays 1700UTC on 14.300 MHz or 14.313 Mhz. Net control, KE7A, is near Fort Worth/Dallas. All past and present members of any Coast Guard, civilian employees and U.S. Public Health Service are welcome.

COUNTY HUNTER

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Ashburn, VA 20147
e-mail: Jansens@tidalwave.net

Counties? You can hunt them?

I can just imagine someone reading this column for the first time thinking, "I've heard of huntin' deer and I've heard of huntin' elk, but how can I hunt a county? I mean, I can't eat it, so why would I want to hunt it?" It's been several years since I've answered a basic question, "Why would anyone in their right mind hunt counties?"

First off, let me declare a quick disclaimer to any potential reading audience, I'm not in my right mind nor do I want to be in my right mind and you can't make me be in my right mind, so there. Now then. . .

For you hunting fans, county hunting does not involve guns (sorry to disappoint you), and the NRA isn't even aware that county hunting is a category of hunting. You see, it's a well-kept hunting secret, shhhh! The object of county hunting is to search and find counties, then pounce on them and declare victory. It's kinda like geographic mud wrestling. One does not feel totally complete as a hunter of counties until they have successfully sought out every last county — that includes big counties, little counties, and counties not-so-formally known as counties.

In order to answer the question, "What is County Hunting?", I must ask you "What is County Hunting?" You see, as beauty is in the eye of the beholder, so is county hunting in the eye of the hunter of counties. What I am trying to communicate to you is what I meant for you to read. So, I'll give you a couple of my definitions of county hunting and then later, at your convenience, you can send me your definition of county hunting. And you can also tell me why, in your right mind, you would hunt counties.

County Hunting Definition #1

To be a successful county hunter using definition #1, you must look at a map and put yourself, your actual body, in different geographical locations known as counties. Therefore you must drive, walk, fly, take a train or whatever is the cheapest means of transportation so that you actually step foot in every U.S. county (shoes are optional). There are lots of counties, so you'll probably not want to walk to all of them.

As far as I know, only one person in their right mind could completely call himself a county hunter using this definition. His name is Allen Zondlak (yes, Allen Zondlak of St. Clair, Michigan) and he visited all 3142 counties. Allen successfully transported his body to all state counties, parishes, independent cities, Alaskan boroughs, and Alaskan census areas. It took him 36 years to accomplish his high school dream. If you need any proof, I'm sure he'd be happy to show you his collection of bars of soap from inns, matchbooks from restaurants, or 28,000 slides (now that would be fun... "and here's me in front of the Welcome to Deaf Smith County sign...and here's me in..."). All kidding aside, Allen accomplished something few have tried. How about you, are you going to start hunting counties using definition #1?

County Hunting Definition #2

This definition does not involve stepping foot in every county and wearing shoes is still optional. To be a successful county hunter using definition #2, one must operate an Amateur Radio from all U.S. counties. So, it's sort of like definition #1 except you also must make Amateur Radio contacts from all those places. It's actually not as hard, because this award is offered by a group that doesn't count counties the same way as Allen did. The Mobile Amateur RadioAwards Club (MARAC) only counts 3,076 counties, so you see hunting counties using definition #2 is 2.1% easier than definition #1.

And as you would expect, since it is 2.1% easier after all, more people in their right minds can completely call themselves county hunters using this definition. A total of two! Kenneth Wosika, KB7QO, was the first to operate his Amateur Radio

from all 3,076 counties, back in 1986. It took Ken only four years and about 150,000 miles on his van to accomplish this task. How does one operate their mobile Amateur Radio station in Alaska or Hawaii, you ask? Ken drove and drove and drove until he got to Alaska, then he drove some more into the judicial districts in Alaska and he flew to Hawaii and rented a car

Gene Kowalewski, W1TEE, was the 2nd and only other completely successful county hunter using definition #2. Gene added a little twist to his accomplishment, he operated Amateur Radio from all 3,076 counties using Morse code. It took Gene four years to operate mobile from the 48 contiguous states, but another two years to make the venture to Alaska and Hawaii. Gene flew to Alaska and Hawaii and rented cars. Gene estimates it took him 136,100 miles on his trusty Plymouth Duster, 5,108 gallons of gasoline, and 282 quarts of oil. But, who's counting?

County Hunting Definition #3

Definition #3 also involves Amateur Radio contacts, but this time with someone else operating from all those 3,076 counties. This accomplishment does not require any movement and shoes are definitely optional again. You see, in order to be a successful county hunter using definition #3, an Amateur Radio operator must make Amateur Radio contact with other Amateur Radio operators in all 3,076 counties. This time, *CQ* Magazine defines the number of counties, which not-so-coincidentally are the same as definition #2. Since it doesn't involve any visits to other counties, and you can pretty much be as lazy as you like, there are many more completely successful county hunters using this definition, in fact, 944, as you'll see later. The scary thing is that not only are there many more people in their right minds county hunting this way, but there also right-minded Amateur Radio operators from other countries hunting U.S. counties. Amateurs from 18 other countries have made radio contact with all 3,076 counties.

This award, *CQ* Magazine's USA Counties Award (USA-CA), is a beautiful addition to any Amateur Radio operator's shack wall. People of all ages pursue this award, partially because of the award's beauty, but mostly to accomplish something few have accomplished and few in their right mind have attempted. The award is available for making Amateur Radio contacts with just 500 counties.

So, what are we to make of the fact that there are only 944 Amateur Radio operators who have contacted all 3,076 counties. In other words, what's wrong with the rest of y'all. If you haven't contacted all 3,076 counties, are you really in your right mind or are you just waiting for county hunter definition #4? Hmmm, I'll bet the internet has something to say about county hunter definition #4. The question is, will it be easier than definitions 1-3? When are you going to start hunting counties? Instead of choosing your weapon, choose your county hunting definition and hunt away.

Latest USA-CA Recipients

938	KD4ABC	07 Nov 97
939	W1VXV	09 Nov 97
940	KJ8V	11 Nov 97
941	AE4FL	11 Nov 97
942	KT1M (N1JAC)	14 Nov 97
943	NA7W	03 Dec 97
944	KF8UN	08 Dec 97

By now, you are well versed in the hush-hush world of hunting counties. Again, these are the only hunting county definitions that I am aware of and I welcome any other right-minded definitions that you may have or can make up. Until May, happy hunting! However you do it ... do it! 73, Ace, N3 aha!

Israel ARC — 50 years

The Israel Amateur Radio Club will celebrate its 50th anniversary 12 February with a gala celebration in Tel Aviv. For more information, visit http://www.iarc.org/50. — *Shlomo Mussali, 4X6LM; ARRL Letter*

Richard Fisher, nu6SN

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e-mail: nu6SN@aol.com

Adrian Weiss, WØRSP, has generated serious wattage in QRP's literary circle for a lot of years.

His resume is peppered with accomplishments that have become low power benchmarks for a quarter century. He was editor of *The Milliwatt: National Journal of QRPp*, a groundbreaking monthly magazine published from 1970 to 1975. He was QRP editor of *CQ* magazine in the '70s and '80s — being one of the lone voices of low power in a major mainstream Amateur Radio publication.

Ade's enthusiasm and contributions earned him a rightful place in QRP Amateur Radio Club International's "QRP Hall of Fame" in 1996.

But as important as these achievements are, they nearly pale when placed beside a little yellow book he wrote and published in 1984:

The Joy of QRP

Even 14 years later, *The Joy of QRP, Strategy for Success* is widely considered the single most important book ever written for and about the low power enthusiast.

Indeed, when its original press run was sold out, "Joy" took on relic value. Dog-eared and tattered swapmeet copies were commanding prices many, many times the book's original cover price, just to make their way to a hallowed spot on some QRPer's bookshelf.

Most of us, though, never even had the chance to make a bid. Copies had become rare, indeed.

Fortunately for those who missed *The Joy of QRP* the first time around, it has been faithfully reprinted and is now available for a whole new generation of QRPers to enjoy.

So careful was Weiss to preserve the integrity of the original text, his section titled "Preface to the Second Edition (August 1997)" begins at the back of the book on Page 152. It's a 10-page 1997 addendum giving readers some background on development of the original "Joy," describes the radio climate and propagation at the time the book was written, and brings the reader up to date on the QRP scene today.

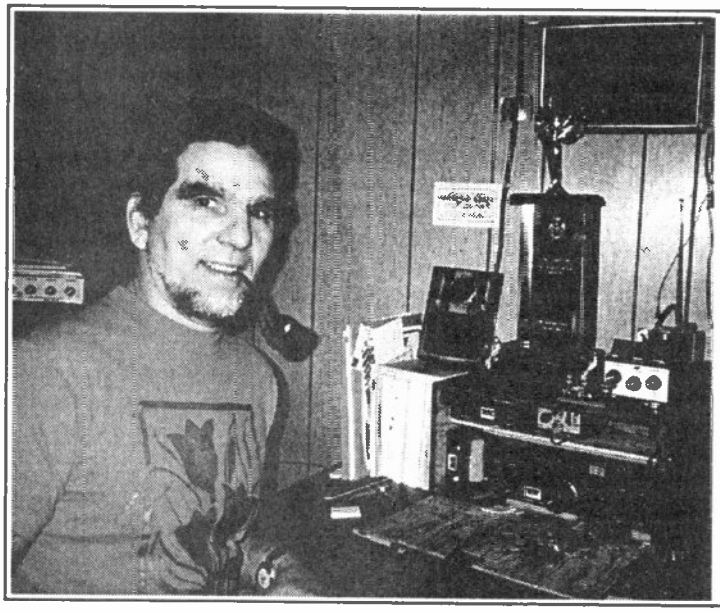
His preface, though, is merely icing on the multi-layered cake that precedes it.

Every bit as valid today as it was in '84, *The Joy of QRP* captures — like no other book — the essence of the QRPer: the mindset, operating styles, techniques and strategies, and the fundamentals — in every sense — of getting the very most out of the very least. It is a remarkable piece of writing.

Chapter headings only hint at the treasures inside: "The Exciting World of QRP," "Sharing the Joys of QRP," "Planning for QRP Operation," "Putting a QRP Signal on the Air — Commercial Equipment," "Homebrewing the First QRP Rig," "General Operating Techniques," "Planning and Operating Specific Types of QRP Activity," and "R.F. Power Measurements."

For both the beginning operator and seasoned veteran, Weiss lays out the essentials for QRP success.

It is unfair to expect the technical aspects covered in a book 14 years old to stand without showing their age, but somehow even the "Viking-5 QRP Transmitter" showcased in "Joy's" chapter on homebrewing car-



Renowned QRPer and author Ade Weiss, WØRSP, at his QRP station in Vermillion, SD, recently.

ries a sense of charm and history.

The philosophical approaches to the many facets of QRP articulated by Weiss are rich, indeed.

Under the subheading "The Enemy — Frustration," for example, Weiss writes of the classic showdown between the QRPer's expectations and cold, at times cruel, reality. Weiss helps the beginning QRPer get the proper bearings for a lifetime of low power excitement. For the experienced operator, it's a satisfying reaffirmation that skill, patience and knowledge can reap some pretty satisfying experiences — even in the worst of band conditions.

Weiss also pays homage to "QRP's Unsung Heroes — The Other Guys," reminding us never to forget that

The historically significant "nu" prefix is featured in the callsign serving as the backdrop to two excellent books on low power: *The Joy of QRP*, and *History of QRP in the U.S.*

"without conscientious, skillful operators 'at the other end' of the communications circuit, a QRP operator's life could be very dismal . . . He is grateful to the guy on the other end for putting in the effort to pick his weak signal out of the QRM, and make the contact a success."

It's this kind of perspective that's necessary to form the foundation of the first class QRP operator.

In his chapter titled "General Operating Techniques," Weiss gives a primer on strategies for calling, with valuable subsections ("Listen-Answer," "Identify as QRP," "Tail-Gating," "Don't 'BK'"), as well as tips on how to select a calling frequency ("Direct Conversion T-R Frequency Relationship," "Correct Tuning Procedure," "Superhet T-R Frequency Relationship," "Tuning Strategy," "Transmit-Receive Frequency Offset"). There's also a subsection on QSO strategy ("The Call," "In-QSO Tactics," "Deteriorating Propagation," "Ending the QSO").

Weiss gives practical advice on everything from QRP mobile operation, 160-meter QRPing, and contesting, to antenna selection and erection, and how to make accurate RF power measurements.

If you're getting a sense that "Joy" is a thorough treatise on QRPing, you're right. Like no other. It's no surprise that the book's shelf-life has been so mightily sustained for well over a decade. For oldtimers and newcomers alike, there's just nothing in the growing body of QRP literature that compares.

The History of QRP in the U.S.

A wonderful companion to *The Joy of QRP* is *The History of QRP in the U.S., 1924-1960,* Weiss' chronicle of the American QRP movement.

Weiss painstakingly gathered thread from many sources to stitch a colorful quilt of the achievements of great radio amateurs across a 36-year span of the U.S. QRP experience.

"In keeping with my scholarly training as a literary historian," Weiss, now 56, writes in the preface of his 1987 book, "I have attempted to thoroughly research the available historical materials and honestly describe and interpret the facts and ideas found therein.

"However, the *History of QRP* is not directed at a scholarly audience, but to others like myself who want to enjoy QRP both in operating with low power and learning more about it."

In splendid and readable detail, the exploits of such famous QRP men as Robert S. Kruse, 1XAQ; L.W. Hatry, 1OX; F.H. Schnell, W9UZ; F.E. Handy, W1BDI; E.L. Battey, W1UE; and many, many others are recounted.

Kruse's May 1924 *QST* article "New American Amateur," in which he decries the abuse of high power by U.S. radio amateurs, is revisited by Weiss and identified as a turning point in the launch of the country's QRP movement.

And QRPers today who think our "Miles Per Watt" awards are some modern manifestation are in for a surprise: Kruse used "MPW" as the unit of measure for a station efficiency contest in early 1924.

Following "The K8EEG Story" about Weiss' early days as a QRPer (under his previous callsign), and "A Visit from the Old Man," the book launches into "Prologue to Exploration: The Unknowns," "QRP Pioneers on the Frontier, 1923-24," "1925: QRP Takes the Spotlight," "1926-27: Newcomers and DX'rs," "1930-1941: Grassroots vs. High Power QRM," "QRP Gains Ground: 1930's," "The QRPr's Story: In Their

Own Words," "The Uprising of '37: The 'Flea Power Association,'" "1945-1960: Before the Transistor," and "1954-1960: Milliwatts and Miles." Weiss closes with an epilogue.

History, in its 200 pages, unearths the roots of low power operation, recording for all time the events and people who collectively set the cornerstones of the QRP movement we carry on today. Great reading, indeed.

And on a personal note...

Now, here's a testimonial:

So inspired was I after reading *History of QRP in the U.S., 1924-1960,* I petitioned the FCC for a change of call letters — requesting a call sign that dates to a brief period in the 1920s when U.S. radio amateurs were requested to use "nu" as their prefix.

Not coincidentally, some of the greatest work of America's QRP pioneers took place during this 20-month period of special "intermediates," as they were called, from February 1927 through September 1928.

Particularly interesting to me were the achievements of Col. Clair Foster, nu6HM. But you'll have to delve into *History* to learn about and appreciate his tremendous contribution to the cause for low power operation.

Prior to this 20-month period, radio amateur call signs consisted of a number followed by letters — 6SN, for example. But as transcontinental communication became common — even at QRP levels — confusion reigned. Was the station identifying as 6SN from the United States? France? Chile? It was impossible to tell.

So the executive committee of the International Amateur Radio Union set up a special system of prefixes ("intermediates") to identify a station's location by continent and country. In the case of U.S. operators, the "n" stood for North America; the "u" for United States. Canadians, on the other hand, used "nc," Mexicans "nm," and so on.

Soon it became ef6SN (Europe/France) calling from Paris; sc6SN (South America/Chile) from Santiago. And it was nu6SN from the U.S. West Coast.

It seems these prefixes appeared only in lowercase in the literature of the time. As the program changed, U.S. radio amateurs were directed to use the now familiar "W" and "K" prefixes beginning 01 October 1928.

I am indebted to fellow QRPer Pete Hoover, W6ZH, who generously provided me with a complete list of those obscure "intermediates" as they appeared in the January 1927 edition of QST. It's fascinating reading on its own.

This morsel of nostalgia and Weiss' *History of QRP in the U.S.* provided the impetus to choose the historically significant prefix you now see in the call sign at the head of this column.

Sitting back, I'm humbled to join so many of you in the passing parade of QRPers contributing in their own way to the history of this great part of Amateur Radio.

To get the books

The Joy of QRP, Strategy for Success, and *History of QRP in the U.S., 1924-1960* can — and should — be part of every QRPer's library.

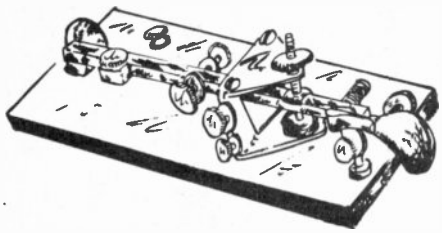
The books are available from the author at these rates:

The Joy of QRP, $23, shipped first class in the U.S.; $15 for senior citizens; $27 DX. *History of QRP in the U.S.*,$15 shipped first class in the U.S.; $10 for seniors; $19 DX.

If you'd like to purchase both books at once, there's a package deal: $33 shipped in the U.S.; $40 DX. To order, write: Adrian Weiss, WØRSP, 526 N. Dakota St., Vermillion, SD 57069.

Pacificon '98: Calling all antenna gurus

The Mt. Diablo Amateur Radio Club, sponsors of the ARRL sanctioned Pacificon Amateur Radio convention in Concord, CA is looking for speakers for their day-long antenna forum to be held on Friday, 16 October, 1998. Antennas, feedlines, matching, and any topic that in general concerns antennas, are suitable topics for the forum. If you are knowledgeable about antennas and are interested in speaking at the forum, or could suggest someone who might be, contact Ray Gaschk, W6FYA; 510/933-3242; 510/798-7997 fax; e-mail: rgaschk@ tpi.net



Positively CW

Nancy Kott, WZ8C
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e-mail: nancy@tir.com

"CW Elitists" is a phrase popping up in conversations lately. Originally coined by Hams who felt discriminated against by Hams who prefer CW, it now is being used by CW operators to describe other CW operators. Most of us have spent many hours practicing copying and receiving Morse code and enjoy the sound of well-formed code. We are justifiably proud of our skill, but I don't think we should consider ourselves superior to Hams who don't possess these same skills, or those less proficient.

Reducing the standards for licensing by allowing multiple choice code exams has resulted in issuing HF licenses to people who can barely copy 5 wpm. Some of them have never even sent code, or even held a Morse key.

From the standpoint of making the exams easier to grade, the multiple choice code tests are a good idea. But you have to admit that with the choices they give for the answers, it's relatively easy to pass this type of exam. It almost makes a mockery of the exams. I have seen this first hand as a Volunteer Examiner administering both the fill-in-the-blank and the multiple choice code exams. Most of the Hams reading this know at least one person who, after passing the multiple choice exam, has admitted (bragged?) that they don't know enough code to feel they earned their ticket. But, I digress.

The point I want to make here is — we have a problem on our hands. We have many Hams on the bands who are not even comfortable at the minimum 5 wpm. They are trying. I give them credit for that and all the encouragement in the world. I'm very happy they have enough interest in the hobby to want to communicate using this wonderful mode. However, it is also making for some terrible-sounding fists being heard on the air.

The mail I receive indicates this is seen as a problem by both the old-timers and the new CW operators. But instead of working together to Elmer and foster good habits, there is another situation brewing. Some of the experienced Hams are refusing to answer the slower CQs. Even worse, some Hams are insulting the slower operators on the air instead of trying to offer some assistance and suggestions for improvement. This is resulting in the "CW elitist" phrase being used among ourselves. The last thing we need is a 'divide and conquer' situation among ourselves.

Imagine this scenario from a letter I recently received from Ray Thomas, NØAYL. "Today while monitoring 30 Meters, I copied someone who was a bit less than perfect but not all that hard to copy. When this person got through sending the other operator said rudely...u send poor poor code can't copy at all...then sped up and signed off and started calling CQ again. I felt so sorry for the other operator. I know how it hurts to be insulted when one is trying so hard. I really wanted to get on and insult the guy that had done this, but then I wouldn't be any better than him. The person who was insulted will probably turn off his rig and it will sit for months before he or she has the courage to try it again. Why do we have to have such clods who seem to have no feeling for the person just starting out and trying his best?"

This letter just broke my heart! I can imagine how mortified that beginner must have been. You may be thinking, "Well, he shouldn't have been on the air until he was proficient." That is all well and good in theory, but, nowdays, local CW Elmers (An Elmer is someone who shows you the ropes.) are practically nonexistent. Sending and receiving Morse code isn't something you can pick up in a book. You need to practice in real life situations.

On the other side of the coin, I received this from John Simmons, KQ6ES. He sent the transcript from his first CW QSO with the comment, "This is one scrap of paper that will never get thrown away."

de kc6dke rr a f6apc at n riti hn
(my reply)
to co d l bi bill
(my reply)
rr o john — rr my name is bill — r qs qt is yonco2 oncord es ur rst rst is 569 569 — wb cldy sook kfbp b
(my reply)
rr qss qsl all ? qsl all — my rig is a lsoa 840 840 brig — welcome to ham radio is cu — i bn ham for 6, 6 yrs — so copy? apc (my reply)
nop etshr — my age is 72, 71 yrs old — and (my reply)

"Need a translation? Hi! That took 22 minutes. Looking back at that I see that I settled down a bit after a very nervous start and really didn't do too badly. Thank goodness I copied Bill's name early enough so I could pretend I was copying! But I was so shook up that it took me seven days to get on the air again for QSO number two! But thank you, Bill! With someone less understanding, I might have thrown my key away a few minutes into that one."

These two examples show how important it is not to act like an CW Elitist. CW is John's favorite mode now and he has a warm spot in his heart for the OM who was kind enough to stick out that QSO with him.

What do you think would be a tactful way of telling someone their fist is less than musical? I've heard of people sending a tape recorded copy of the QSO. Maybe this is a good idea, although it is not very practical. Take the time to write them a note with your QSL card, suggesting some improvement techniques. If you have something in common with the person and would enjoy chatting again, suggest another meeting on the air, or a 'sked'. But please don't insult and embarrass someone on the air. Aside from not being polite, it can do irreparable harm and discourage someone who may turn out to be an excellent CW operator. They had the interest to learn enough code to make it through a chat, enough guts and determination to get on the air — sounds as if they have the makings of the Right Stuff to me!

Thanks to everyone who wrote regarding my question about operating CW while mobile. The consensus is that mobile CW is safe and makes you a safer driver because you are more alert, particularly on long drives. I received letters from Hams who have interesting arrangements for holding their keys in place while driving. Bob Hill, started out with a J-38 hand key strapped to his leg, then graduated to a set of contact points from an AC relay mounted in a plastic box. He now uses a paddle secured to a wooden mount that sets on the hump in his Cadillac.

Gene Santoski, K9UTQ, has been operating mobile CW for years. He recently bought an ICOM IC-706 that gives him the capability to use the frequency up and down buttons on the microphone as a key paddle. Gene reports that it is very convenient once you get the hang of it. I must be living in the dark ages because I never heard of that. It seems as if that would be a good way to go.

Copying in your head is also the best way to go, and just writing down the essentials. The extra practice you get by head copying goes a long way toward improving your speed and accuracy. The downside of head copy is that it can make logging a bit of a challenge when you return home.

Dick Burke KA1ZQR is eager to get one of his three AN/GRC-9; 1.9 to 12 MHz AM/CW sets on the air in a mobile fashion. He is experimenting with strapping his #19 set key to his knee and wonders how others do this. Any suggestions?

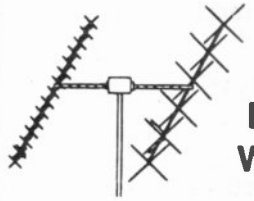
I have my hands on one of the new G4ZPY three-in-one combo iambic paddle keyers that I hope to get time to review in the next few weeks. It has a magnetic mount on the bottom, as well as metal loops for a leg strap. I'll let you know how those work out.

What did you think of the February 1998 Novice Round-Up? FISTS CW Club is sponsoring the Novice Round-Up after the ARRL decided to drop it a few years ago. I hope the Novice and Technicians reading this got on the air and got their contesting feet wet! The Novice Round-Up was on the heels of the School Round up, so there were plenty of operating opportunities to encourage new activity on the CW segment of the bands.

It's not to soon to start making your plans for attending the Dayton Hamvention. Even though it is the middle of the winter with freezing rain outside while I am writing this, I know May 15 will be here before we know it. I have the FISTS CW Club booth confirmed, so plan on stopping by and saying hello. It's nice to put a face with a call sign!

Please keep the letters and E-mails coming, I really appreciate your comments and suggestions for future columns. My address is Nancy Kott, WZ8C, P.O. Box 47, Hadley MI 48440. Email is nancy@tir.com.

Amateur Satellites



Terry Douds, WB8CKI

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e-mail: wb8cki@amsat.org

Hello everyone! I hope that you and your antennae have survived winter thus far, with all of the oddities that El Niño seems to have brought to us all. Thankfully, the satellites are not subjected to these odd weather patterns, and most are continuing to bring us reliable communications.

Adios, Sputnik II

However, one seems to have given up the ghost. The new RS-17, or Sputnik II, appears to have ended its short life recently. The beacon signal from the bird was last heard 29 or 30 December. The 100 mW lithium battery-powered transmitter continued working for eight weeks after its launch by hand from Mir 03 November. The beacon, transmitting a beeping tone on 145.82 MHz, was heard by Hams all over the globe. The frequency of the tone indicated the satellite's internal temperature, and I read reports by many people who were regular listeners to the satellite who noted that its internal temperature was getting rather high while its signal got weaker and weaker. It has been theorized that this may have caused a problem with the batteries, shutting down the bird. It is too bad, as it has been very exciting for many amateurs who have had their first experiences on the satellites while tracking this one.

Students from the FR5KJ radio club at Jules Reydellet College in St. Denis, Reunion Island, and at the Polytechnic Laboratory of Nalchik Kabardine in Russia cooperated in building the mini-Sputnik. For them, it is certainly a moment of both sadness and happiness. It did run several weeks longer than the original, and it was only predicted

to have a life expectancy of 40 days. To have built a new satellite, a model of the first bird in the sky, and have it work very well, even for a short while, is an accomplishment that they should be proud of! They will have even more successes in the years ahead.

AMSAT Symposiums — '97 & '98

The 1997 AMSAT Symposium in Toronto went off very well in October. It was the best attended conference yet! In addition, those attending spoke of what a wonderful event it was. I didn't get to attend due to a change in my work schedule, but it seems I really missed a great conference.

Not to be outdone, the 1998 Symposium is now in full planning mode. It will be held in Vicksburg, Mississippi, 11-15 October 1998. If you would like to get more information concerning the Symposium check out their web site at http://pages.prodigy.com/DXHF93A. It is also reachable via a link from the AMSAT-NA Home Page (which is www.amsat.org). There will be a great deal of information about Vicksburg and the conference added over the next few weeks, so check in often.

And there's more! The call for papers has been issued for the 1998 AMSAT-UK Colloquium, to be held at Surrey University, Guildford, Surrey, U.K., from Friday, 31 July to Sunday, 02 August 1998. This year's event will include technical and operational matters as well as an IARU forum.

AMSAT-UK would like to invite authors to submit papers, about Amateur Radio space and associated activities, for this event and for the "Proceedings" document which will be published at the same time. They prefer that the authors plan on attending the event, but they will entertain those who want to submit papers to be presented by others.

Submit Offers of Papers as soon as possible; the final date for full documents is mid-June 1998 in order that the "Proceedings" document can be available to participants.

Submissions should be sent *ONLY* to Richard Limebear, G3RWL, via the following routes:

Internet e-mail: g3rwl@amsat.org

Packet Radio:G3RWL @ GB7HSN.#32.GBR.EU

Satellite: AO16/19/22/23/25

Terrestrial mail: R W L Limebear G3RWL, 60 Willow Road, Enfield EN1 3NQ, United Kingdom.

200th Houston AMSAT Net broadcast

In January the Houston AMSAT Net celebrated its 200th commercial satellite broadcast. The net has been going on much longer than that, but it was still a milestone! The net normally meets at 8 p.m. local time (CST right now — or 0200 Z) every Tuesday evening. Many people were on-board to talk on the net 06 January. While listening to it, I was reminded that although you can get the net via Ku-Band satellite (Hughes SBS6, T13B, 6.2 MHz wide band audio), it is now available as well via Real Audio on the web! You can find the feed at http://www.amsatnet.com. They use 28.8 mono encoding and it sounds excellent.

AO16S powerless

Jim White, WDØE, sent out a message stating that the AO16 S band transmitter is off at the present time. They found that the bird does not have a big enough power budget to keep it on and keep the 70 cm transmitter at a power level that will properly support ground station operations. The 437.05 MHz transmitter has to be run at about .5 W to allow the S transmitter to remain on; any higher than that and the software turns the S off to maintain a safe battery voltage.

S receive testing

If you're interested in testing S receive equipment you can use either the DOVE S-band transmitter on 2401.220 MHz or the UO-11 S transmitter. For further information on this, see the most recent *AMSAT Journal* or the article on the AMSAT-NA WEB page.

AMSAT-UK contacts

For those of you who may have belonged to AMSAT-UK, or who have been following the birds for a long time, you may have run into Ron Broadbent, G3AAJ. Ron has been the Honorary Secretary/Treasurer of AMSAT-UK since 1978, and has really been the main contact in the UK for many people involved in satellite work throughout the world. He noted about a year ago that he would be retiring as secretary as of the end of 1997. His influence on the entire community will be missed; his "Waffle Pages" in the *Oscar News* have been some of my favorite reading each month. He is still a member of the AMSAT-UK Committee (BoD) as representative to various worthy bodies such as IARU, ISS etc., so he is not disappearing.

The incredible task of Honorary Secretary has been taken on by Fred Southwell, G6ZRU, (g6zru@amsat.org), and Fred's XYL, Jenny, G1LIT, has taken the position of Honorary Treasurer. Consequently the telephone and fax numbers are changing. AMSAT-UK's telephone number changes to +44 1273 495733 and Fax to +44 1273 492927. (Honorary to the British has the same meaning as Volunteer to the Americans — those who do the work for no pay).

P3D still in limbo

We're still waiting to hear from AMSAT-DL about the negotiations with the ESA concerning the launch of P3D. We'll keep our fingers crossed and hope for good news. Still the delay raises costs of storing the bird in Orlando. There were extra expenses for structural reinforcement. It's been estimated the project will be $270,000 in debt without additional donations. If you can, dig as deep as you can and send donations to AMSAT, 850 Sligo Ave. #600, Silver Spring, MD 20910.

A sad farewell

I'd like to say good-bye to a friend I met only via the satellites — Willie Love, W5AVH (or as we knew him before the vanity call, K5MFA). I found out in late Dec. that Willie had passed away, and he is one operator I will really miss. He was one of my first contacts when I began operating on the satellites — always helpful and talkative on many different subjects, not just radio and the birds. When the band was open and no one was around, you could still find Willie — and learn something in the process. He sent QSLs to everyone. I was surprised when I got my first one. I got two or three different ones over the years. I found he was helpful to all newcomers — explaining procedures, defining techniques — he was one in a million. I never had an eyeball QSO with him, but he definitely made a difference to many of us.

Have fun and hope to see you on the birds!

propagation

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e-mail: k9la@gte.net

At the end of the December column, I mentioned that propagation prediction programs are most accurate at low and mid latitudes. This implies that the accuracy is not as good at the high latitudes. Let's take a look at what our high-latitude KL7, VY1, and VE8 friends have to contend with, how current prediction programs address some of these issues, and what's on the horizon in prediction programs to make things better.

With respect to what our northern friends have to contend with, there are essentially three problem areas unique to high latitudes: the auroral zone (also referred to as the auroral oval, and considered to lie roughly between 60 and 70 degrees geomagnetic latitude), the mid-latitude trough, and the polar cap (considered to lie roughly between 70 and 90 degrees geomagnetic latitude). Let's take a closer look at each of these.

The auroral zone is caused by streams of electrons from the sun that are accelerated in the magnetosphere and deflected toward the polar regions by the earth's magnetic field. In the auroral zone, MUFs are affected (usually downward) and absorption increases. The auroral zone is the biggest cause of high latitude propagation problems, as the number of disturbances per year can be quite large. For example, using the NOAA prediction of Figure 2 in the August 1997 column for magnetic field activity shows 20-30 days per year of Ap greater then 25 (corresponds to Kp of 4) at the bottom of the cycle (about where we are now) and increasing to 60-100 days per year at the top of the cycle.

On the equatorward edge of the auroral oval lies the mid-latitude trough. This is a region of the ionosphere only a few degrees of latitude wide in which the critical frequencies suddenly drop by a factor of two or more, with the ionization peak rising by 100 km. What this means is a path with a refraction point near the trough can have the MUF drop suddenly by a factor of two or more when the refraction point occurs within the trough rather than outside it.

Finally, high energy protons from solar flare disturbances can bombard the D region, resulting in greatly enhanced absorption over most of the polar cap. This is called a polar cap absorption (PCA) event. There was a rather large one that occurred in early November last year, and it will be discussed in next month's column. For the past several solar cycles, there have been about 60 PCAs per cycle — that works out to about 5 per year.

So those are the three problem areas. No wonder HF is tough way up north: the effect on MUFs in the auroral zone, increased absorption in the auroral zone and across the polar cap, and the possibility of decreased MUFs in the mid-latitude trough. Jim Larsen, AL7FS, forwarded some pretty grim reports of HF conditions to me — I'm glad I'm not up there!

To visualize the above areas, refer to Figure 1. It's an azimuthal equidistant map centered on Anchorage, Alaska (from Oldfield's DXAID software). The auroral oval is for a k index of 0 — quiet conditions. Paths to Europe are headings out of Anchorage of about 330° through 030° and go through the auroral zone (some headings go through it twice) and across the polar cap.

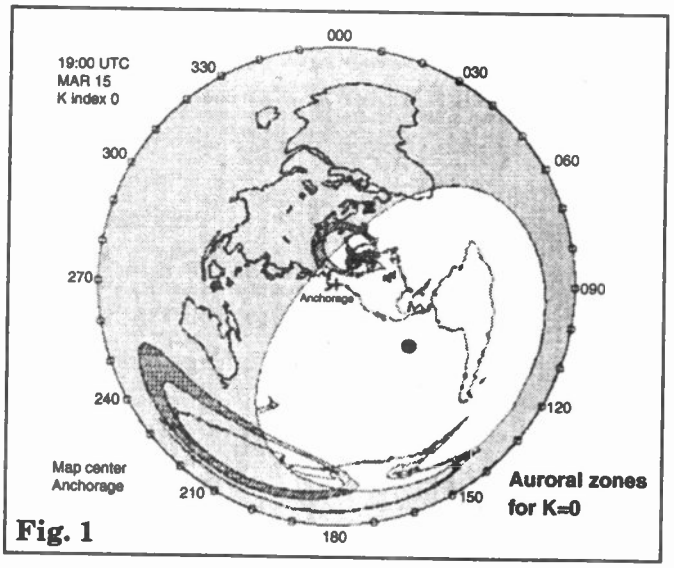


Fig. 1

Paths to the U.S. East Coast and to the U.S. Midwest fare a bit better by only getting close to the auroral zone — how close depends on the k index. As the k index increases, the auroral zone enlarges and affects more of the East Coast and Midwest paths, and can even extend over Anchorage for a k index greater than about 4. Figure 2 is for this condition —

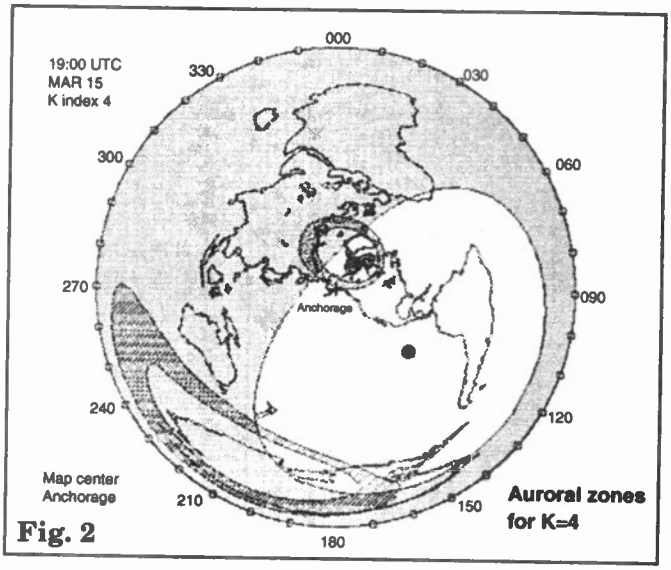


Fig. 2

the auroral oval is just over Anchorage. For more information on auroral zones and neat pictures of them, refer to the Space Environment Center web site from January's column (web site #5).

Why can't all these problems simply be modeled? There are two reasons for this. The first reason is that the model of the ionosphere for propagation prediction purposes is a monthly model — remember monthly median values are correlated to smoothed (12-month running average) values. As such the model may have some trouble accurately predicting short term events such as auroras and PCAs.

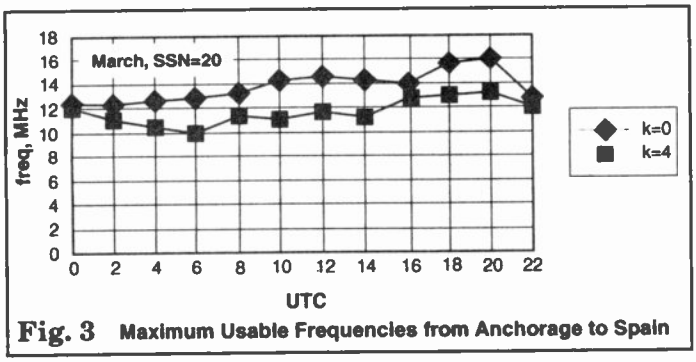


Fig. 3 Maximum Usable Frequencies from Anchorage to Spain

The second reason is that the measured high latitude data that is used in the model is somewhat inaccurate (or mostly lacking, as is the case of the mid-latitude trough) due to the lack of an adequate number of sounders in those areas of the world.

What this does is leave our northern friends with predictions that are most accurate only for quiet conditions. For auroral issues dealing with MUFs, several current prediction programs have an input for the k index. This attempts to give a short term update in 3-hour intervals (since the k index is reported in 3-hour intervals).

For example, MINIPROP PLUS from W6EL uses tables from *Predicting Long-Term Operational Parameters of High-Frequency Sky-Wave Telecommunications Systems* by Barghausen, Finney, Proctor, and Shultz to modify the quiet conditions. Figure 3 summarizes a prediction by MINIPROP for an Anchorage-to-Spain path (25° heading out of Anchorage) for k = 0 and k = 4. Quite a difference in MUFs is seen — and they're all going the wrong way at the higher k level. This isn't the whole story, either — what's not taken into account is absorption, as MINIPROP does not have this capability (in all fairness to MINIPROP, neither do most of the other programs).

What's in store for the future? The Proplab Pro prediction software out of the Solar Terrestrial Dispatch up in Canada (that's fitting, isn't it?) will have an update sometime this year. It will include a better model of the ionosphere that will incorporate new data on the lower D and E regions, better profiles for the F region during varying levels of solar and geomagnetic activity, a more accurate model of the mid-latitude trough, and provide more accuracy in the high latitude ionospheric profiles. It will be in a true 32-bit environment (Windows 95 and NT), and will seamlessly integrate with their SWARM (Solar Warning and Real-time Monitoring) software to provide as close to real-time HF propagation conditions as possible. This includes solar flares and polar cap absorption events. I don't know how accurate it's going to be, but it should at least be a step forward.

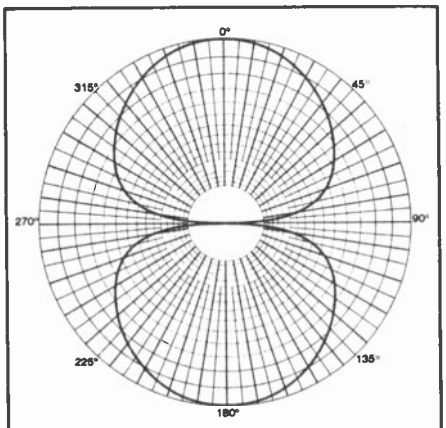
So for those of you up north, hang in there — help with predictions is on the way. The events will still occur and HF propagation will still degrade, but at least you may be able to assess the impact beforehand.

For those interested in reading more about high latitude propagation, I recommend reading *HF Propagation Effects at High Latitudes* by Bob Hunsucker, KL7CYS, in the February 1967 issue of *QST*.

Sunrise in Norway

LA6WEA reports that there are hardly any times available during the winter season that Norwegian stations can work the U.S. stations during the Norwegian sunrise. He says that at 55 degrees north latitude that they are in greyline or darkness 24 hours.

Ken mentions that he will be active almost every day from 1100-1500 UTC along with a couple of other Scandinavian stations. Look for them from 3.780 to 3.799 MHz.



AERIALS

Kurt N. Sterba

Many amateurs would like to get on 80M, 160M or even 40M with a decent signal. Let's examine the why and wherefore of possibly circumventing what appear to be insurmountable obstacles.

On 80M, a half-wave above ground, for a dipole antenna, is in the neighborhood of 120 feet — for the majority, impractical. And for 160M you can double that figure. . . .. forget it.

Thus, for many the only solution is the short (it's that "short' that does us in, RF-wise) loaded vertical, so let's wander down the road of possibilities.

First, it should be mentioned that many operators, realizing that verticals are noisy on receive, use their vertical for transmitting only and continue to receive on a horizontal wire of some nature.

Whatever suggestions we now

make we expect you to execute with your own creative variations thereupon.

A quarter-wave vertical on 80M is about 62 feet long. The main virtue of this antenna is the low angle of radiation. That is so, however, only if there is a quality ground system, and therein lies the main drawback of this antenna. Wires extending out 60-some feet in all directions from the antenna center (120 ft. diameter) does present an undeniable problem for most.

But how does one build (simply) a quarter-wave vertical 62 feet long? Those 50-foot pop-up TV masts may be a solution. Yes, tacking on another 12-foot section may be a bit unwieldy. There is a better solution. From the top of the mast just run out 12 feet of wire to an insulator and from that run a cord to some handy tree, garage or whatever.

Should you guy that mast at the very top, put insulators right at the mast before the guy wires. Or, if you want to do a lot of testing, let the guy wires run down to another level of insulators down 10 feet or so. And you can forego the added on 12 feet of wire. The guys are making up for the missing top 12-foot section. It will be "cut-and-try" for resonance.

Just how far down in signal strength will this be in comparison from a perfect 80M, 1/4 WL vertical? It won't be noticed at the other end.

Now to 160M. A quarter-wave vertical is in the vicinity of 130 feet tall. Hmmm. Well, back to the 50-foot pop-up. From the top of 50-footer we run an eighty-foot long piece of wire out in some direction. Incidentally, you may find that this antenna is a bit directional in the line of the run of the horizontal wire.

How will this compare to the perfect 1/4 wave 160M antenna? How many truly perfect antennas are there to compare to?

If the 80-foot run of the horizontal wire is a problem it can be coiled up. An approximate starting point is that it takes two feet of wire coiled up for each one foot of wire you are making up for. Use as big a wire as you can handle and have at least the width of a wire spacing in between each turn. A two-inch diameter form would be sufficient.

Radials.

The books all show the wires running out in straight lines. That's nice. In reality you will probably run your radials to the property line and then run them in a 90-degree angle. Tie your ground to the sprinkler system or garden faucets. Totally forget that nonsense you may have read elsewhere about sinking 20-foot vertical pipes into the earth, for a better ground. Absolutely wasteful!

For 40M there are some variations on all of this. You could get a 40-foot pop-up and just extend it only about 33-feet and have a quarter-wave right there. If, for some reason, that presents a problem, go up about 16.5 feet (with a 20-footer) and then a horizontal wire for 16.5 feet.

Now let's move to a nice trick, if you have the room. Let's say (on 40M) you can go up 33 ft. Then add a 33-ft. wire and then at the end of that wire come down another 33 ft. You have three sides of a square box. The antenna is made up of three, quarter-wave sections and when feeding it at the bottom of one of the vertical sections you will find that the resonance is just about right on. It is said that odd multiples of quarter-wave retain the properties of a single quarter-wave. Well, you'll probably find that in reality it's close enough.

With the three sides of the box antenna you'll find that you have vertical polarization for DX and horizontal for regional contacts.

Now for those fortunate enough to have adequate space, here's a good one. A quarter-wave vertical, then connected to that (at the top) is a half-wave horizontal wire which runs to the top of another vertical element. Yes, for 40M the horizontal run is about 65 feet. The great virtue of this antenna is that you can run your feedline to the junction of the vertical element where it meets the horizontal wire (shield to the vertical and center conductor to the horizontal wire, or the other way if you prefer, this is AC so it flip-flops) AND you can just forget all about radials and there is no penalty in performance. This is now a two-element vertical and is best for DX with the directivity favoring 90-degree angles to the horizontal wire.

Yes, you can scale it down for 20M and up if you would like.

Lil

One of the Kurt pals sent in something that I would like to comment about. The pal's young nephew just received an Amateur Radio license and was sent some material by the, (oh, let's call them) the Armenian Rug Restoration Laboratory. The booklet contains childish rubbish!

We have sunk to sorry depths indeed from the days of Ross Hull, George Grammer, Ed Tilton, and the late Doug DeMaw. W1FB wrote a great deal of material for the new amateur and it was never like the inane nonsense I shall now describe.

In a booklet, the writer (this borders on the incredible) notes that he wouldn't erect a vertical antenna because "their awkward, spiky appearance didn't blend well with the landscaping." Aw, poor boy.

He then says, "as much as I love Ham radio". . . ..(he was against) "installing a copper monstrosity that looked like as if it was spun by a mutant spider." For those who may be wondering what he is talking about, that is his view of a dipole.

He talks about the "aesthetic issue". I'd suggest that if his aesthetic sensibilities are being frazzled by antennas that he abandon Amateur Radio and instead take up needlepoint or scrimshaw. Yes, you and I and hundreds of thousands of others have used, throughout many decades, the dipole antenna without suffering even the slightest iota of aesthetic distress.

The punch line to all this is coming soon. He considers a fan dipole (various dipoles for different bands tied to one feedline) but rejects it because , and again I quote: "Too big and ugly! (We're back to the spider-web problem again.)"

So, he puts up a 66-foot dipole fed with 50 feet of coax and uses it on all bands. He later chases after the Laboratory's antenna guru who figures out that on 20M this antenna

system has a loss of 5db and on 10M almost 6dB. On 18 MHz the loss is 7dB, or, less than one-fourth of the transmitter power is being radiated.

Obviously, it never occurred to this Extra Class amateur who holds a high position at the Laboratory's monthly publication to build an all-band dipole from rotor cable where each set of wires is cut to a different band.

He then recounts that after a year of thinking about all this that he contacted the guru who suggested feeding his antenna with ladder line instead. Let's see, this antenna has only been in every handbook for about the last 80 years now.

In real "See Spot Run" style the writer challenges the guru: "'Oh no,' I said, 'I know all about ladder line. It radiates RF in your house. . .'" etc.

The article went on: "Dean simply smiled." I'll bet he was smiling to keep from breaking out into sardonic laughing.

"This will never work," he mumbled as he set up the guru's system. I can only guess that he hasn't read the pages in the many books put out by his employer (even the beginner books by DeMaw) nor the many articles in his own magazine. There's more, but I shall mercifully not report further on the silliness to be found in the booklet.

There are those who keep saying that the electronic engineers that should be attracted to Amateur Radio are being repelled by the CW test. No, I think instead that the engineers are being repelled by swill like this. It is just too, too, cute. No one reading the article described here can take us seriously. Is this the image we want others (and even ourselves) to have of Amateur Radio? At present the image presented is that of mindless twits.

Possibly the purpose of the article is to say to the new Ham, "Don't feel bad, we've been Hams a long time and we're still just as ignorant as you are about all this." If that's the goal, it is a very juvenile one.

(Radio amateurs who prefer to comport themselves in an adult manner may wish to announce that attitude to others by availing themselves of, and wearing, a Kurt Cap.)

Contests

Dave Goodwin
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See how they run

"Running" is an important part of the game for most contesters, and running well is a skill not easily learned, or so it appears. "Running" is that technique of calling CQ and trying to work as many people as you can. Doing this well means doing this efficiently, quickly and clearly.

Let's say you're the person who is "running," or calling CQ. How should you call CQ? A contest is definitely NOT the place for a long-winded CQ. If you call an over-long CQ, impatient folks will just tune through you and on to the next signal on the band. They might be more patient if you're in a rare multiplier, but don't count on it.

Whether in CW or SSB, you should call CQ concisely. On CW, I usually send "CQ TEST VE2ZP VE2ZP TEST," then I pause for a few seconds, and if I hear no one respond, I call again. On SSB, I would say "CQ Contest Victor Echo Two Zulu Papa," pause for perhaps two seconds, then call again. In both examples, my CQ is very short, and I listen just long enough so that if someone replies, I will hear them. If no one replies, I start calling again right away — I want to keep my frequency busy so that people tuning by are more likely to hear me. And if I make my CQs short, they won't have to wait long to work me.

In an ideal world, someone will reply to your CQ by sending their call sign ONCE. You will reply by repeating the other station's call, then giving the exchange. You then pause for a reply. They will reply with the exchange. You say "thank you," and send your call to indicate that you're ready for the next station.

That's the ideal contact — short and to the point. In real life, things often work out less smoothly. Suppose you're running on a crowded, noisy band, and you copy only a couple of characters of a caller's call sign. You may be tempted to spend time making sure you have the full call correct before you send the exchange. Don't do it — it can really slow you down, and exhaust the limited patience of the other folks who may be waiting to work you.

I think things go a bit better if you respond with the call sign fragment you have copied, a question mark, then send the exchange. When the station replies, as they know you don't have their call sign correct, they'll re-send it without prompting in most cases, followed by the exchange. You then reply with the complete corrected call sign, say "thank you" and send your call indicating you're ready for the next guy. Doing it as I suggest involves fewer "overs" and to the waiting throng, sounds quite efficient.

Here's an example, in CW, how such a QSO might go:

Station 1: CQ TEST VE2ZP VE2ZP TEST (Me calling CQ)

Station 2: (qrm qrm qrm) 8K (qrm qrm qrm) (This is all I copied through the noise or crowding)

Station 1: 8K? 5NN567 (I send the fragment of the call I did copy with a

question mark, and the full exchange)

Station 2: DE N8KR 5NN745 (The other station responds with his or her call sign first, followed by the exchange)

Station 1: R N8KR TU VE2ZP (I confirm that I've copied the other station's call sign correctly, say thanks, and I'm now ready for the next contact)

If you still are having trouble copying the call sign or the exchange, be sure to ask for repeats. "CL?" for "what is your call?", "AGN" for "send it again, please," "NR" for "what is your number?" are all commonly-used and succinct means of eliciting the information you need.

On SSB, you should always give your full call sign in standard phonetics. (See the list published by the International Civil Aviation Organization, ICAO, which you can find in the ARRL Handbook or Operating Manual.) Please don't use "cute" phonetics. "Oscillating ocelots" may be amusing, but save them for your stand-up routine. They serve only to confuse the stations you work, and some jokes don't cross national or language barriers well.

Never send your "last two"

One should never ever call someone by sending only a fragment of your call. On the phone bands, there is a fairly common practice of people calling in a pile-up by just sending the last two letters of their call signs. This is a practice most contesters find very irritating, because it slows things down unnecessarily. If you send your full call sign once when calling someone, there's a good chance the other operator will copy it perfectly. If you send only the last two letters or some other fragment, there is absolutely no chance that the other op will copy your call completely, and it may require one or two more overs to complete the QSO.

The "last two" practice probably developed on the various "DX nets," where its use may be appropriate, but is completely out of place in almost every other situation. Calling someone by sending your full call sign is generally the best policy. The only exception is when a DX station instructs you to send your "last two" — it is the DX station's pileup, and he or she can run it any way they choose.

Contest of the Month — CQ WPX SSB

0000 UTC Saturday 28 May to 2359 UTC Sunday 29 May 1998. (PST: 4 p.m. Friday 27 May to 4 p.m. Sunday)

(EST: 7 p m. Friday 27 May to 7 p.m. Sunday)

The CW version of this contest takes place at the same times on 30 and 31 May 1998 with identical rules.

This is another of the biggest events in a contester's calendar. The contest is a logical outgrowth of *CQ* Magazine's "WPX" award, which rewards prowess in finding and working different call sign prefixes.

On 10, 15 and 20 Meters, each QSO you make with a station outside your continent is worth three points. QSOs with stations in other North American countries are worth two points, and contacts with stations in your own country are worth Zero QSO points. These QSO point values are doubled for contacts you make on 40, 80 and 160 Meters. As you can see, there is a strong incentive to spend time on the low bands, as even if you make fewer QSOs in a given period of time, these QSOs can have a greater impact on your score, as they are worth twice as much as QSOs on the high bands. If you're outside North America, QSOs with stations in other countries in your continent are worth one point on the high bands, and two points on the low bands.

Your total QSO points from all bands is multiplied by the total number of different call sign prefixes that you work. Each prefix counts once, regardless of band.

What counts as a prefix? The rules for the WPX award are the guide. Basically, it's that combination of letters and numbers at the beginning of your call sign. For our honored publisher (Armond, N6WR) his prefix is N6. When I operate as VE9CB, my prefix is VE9. D44BC's prefix is D44. "Portables" are a bit more complicated. Suppose I were to operate in the U.S. as VE2ZP/W2, my prefix would be W2. Let's say you work NP4IW/6 in California — he would count as an NP6, however odd that may seem. How about if you work LU/OHØXX in Argentina? A contact with him counts as an LUØ — in the absence of a numeral in the prefix, the WPX award rules oblige you to assume a "zero" for the missing digit. Other suffixes like /M for mobiles, /MM for shipboard stations, /AM for aeronautical mobiles, /P for portables, /A for some arcane purpose in some European countries and /QRP count for nothing beyond the prefix of the root call sign. K8XXX/MM counts as a K8, not an MMØ.

One interesting little irony of this focus on prefixes is that in the WPX contest, working lots of DX all over the world is not terribly important. There are two huge sources of prefixes and activity (Europe and the United States — Japan is a distant third) and a few more minor ones. If you make a lot of contacts with those areas, many of the prefixes will come to you without much digging. In this contest, a contact with a second 9N1 might be less valuable to your score than a QSO with the KF6 down the street.

The United States is a very prefix-rich country. There are literally hundreds of different call sign prefixes active and available. Even if you make no QSO points for each contact with one of your fellow citizens, it's to the benefit of your score to work a lot of Americans. They will bring your multiplier total way up, and that will really help your score, provided you have also worked a lot of stations outside your country.

There are some contesters in the United States who feel very frustrated by the scoring rules for the WPX contests, and resent mightily having to fill up their logs with zero-point QSOs. Affection for this contest seems to dwindle as one travels further west, and some in the western U.S. have decried it as the "East Coast and Europe QSO Party."

A typical QSO might sound like this:

Station 1:"CQ contest, Kilo Uniform Zero Kilo Uniform, Kilo Uniform Zero Kilo Uniform, contest." (Quite short and to the point)

Station 2:"Juliet Alpha Seven Sierra Sierra Bravo" (This station replies just by sending his or her call sign once)

Station 1: "JA7SSB, you're five-nine seven-three-four" (KUØKU acknowledges the station to which he's responding, and sends a signal report and a serial number indicating that JA7SSB is his 734th contact)

Station 2: "Roger, you're five-nine one-one-zero-six" (JA7SSB responds in kind — KUØKU is his 1,106th QSO)

Station 1:"Thank you. Kilo Uniform Zero Kilo Uniform" (KUØKU thanks JA7SSB for the contact, and is standing by for other stations to call him. If he gets no response, he'll call CQ again)

As you make each contact, make sure

Contest	Date/Time	Bands	QSO points	Multipliers	Exchange	Entry Catagories	Entries
CQ 160M SSB	2200Z 27 Feb 1600Z 1 Mar	160M SSB	2pt/VE 5pt/NA 10pt/DX 5pt/Mar.Mob	Canadian Call Areas, US States other DXCC Countries	RS State	Single Op Multi-op	1 mo. K4JRB or *CQ* mag.
REF SSB	0600Z 28 Feb 1800Z 1 Mar	80-10M SSB	15pt/France + terrs 5pt/F+terrs in NA	Departments of France (96), F6REF/00 on each band	RS Ser#	Single Op: All bands, single band Multi-op SWL	15 Apr BP 2129 37021 Tours Cedex
UBA CW (Belgium)	1300Z 28 Feb 1300Z 1 Mar	80-10M CW	10pt/ON 3pt/Eur. Union 1pt/other	ON Provs (8) + ON Prefixes + DXCC countries in European Union	RST Ser#	Single Op: All bands, single band Multi-op, single tx SWL	30 days ON7LX
RSGB 7MHz	1500Z 28 Feb 0900Z 1 Mar	7000-7030 kHz CW only	15pt/QSO Work UK stns. only	UK counties UK stations will send a three-letter country code	RST Ser#	Single op only	17 April G3UFY
ARRL DX SSB	0000Z 7 Mar 2359Z 8 Mar	160-10M SSB	3pt/QSO Work stns. outside Canada USA only	DXCC on each band	RS State	Single Op: All bands, single band Assisted, Low power, QRP Multi-op: one, two or multi-tx	1 mo. ARRL
Commonwealth Contest or BERU (RSGB) Only open to stns. in Commonwealth countries	1200Z 14 Mar 1200Z 15 Mar	80-10M CW	5pt/QSO Work only Commonwealth	No mults: 20pt bonus for 1st three QSOs with each Commonwealth call area (DXCC ctys + VE/VK/ZL/ZS call areas - all G/GM etc. count as one call area)	RST Ser#	Single op all bands: Open (24 hrs) or Restricted (12 hrs) band	to arrive by 18 April G3UFY
QCWA QSO Party	1900Z 14 Mar 1900Z 15 Mar	160M UHF+	1pt/SSB QSO 2pt/CW QSO	QCWA chapter, Canadian provs. & terrs., US States, DXCC cntrys count once each band, Rules allow for 15 bands, 160M, 80CW, 80SSB, 40CW, 40SSB, 20CW, 20SSB, 15CW, 15SSB, 10CW, 10SSB, 6M, 2M, 135cm, 70cm and beyond. A QSO w/W2MM counts three multiplier points.	1. RST 2. Year first licensed 3. QCWA Chapter# or Prov/Terr. State or Country	QCWA members QCWA non-members Novices	30 days W4BK
Bermuda Contest	0000Z 21 Mar 2359Z 22 Mar	80-10M CW & SSB	5pt/QSO	VP9 stns. + DXCC + WAE cntrys worked on each band	RST Ser#	Single op, all bands (max. 24 hours of operation)	25 May Box 275 Hamilton Bermuda
Alaska QSO Party	0000Z 21 Mar 2359Z 22 Mar	180-10 M+ Satellites CW & SSB	1pt/SSB QSO 2pt/CW QSO x2 on 160M, 80M and satellites. Alaskans work everyone, others work AK only.	For stns. outside AK: AK cities For Alaskans: US States, Canadian provinces and DXCC countries	Alaskans: RST City Others: RST State	Single op, Single op QRP Multi-op, single tx Suggested freqs.: 1835, 3700, 3875, 7035, 7135, 7235, 14035, 14245, 21135, 21335, 28135, 28335 kHZ	30 June KL7CC
BARTG RTTY (UK)	0200Z 21 Mar 2359Z 23 Mar	80-10M RTTY	1pt/QSO	DXCC + Canada/Australia/USA call areas	RST Ser#	Single Op: All bands, single band Multi-op SWL	29 May G4SKA
CQ WPX SSB	0000Z 28 Mar 2359Z 29 Mar	160-10M SSB	0pt/VE 2pt/NA 3pt/DX x2 on 160, 80, 40M	Total of prefixes worked, regardless of band	RS Ser#	Single Op: All bands, Single band Assisted, low power, QRP multi-op: single or Multi-tx	1 mo. *CQ* mag.

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.

you not only log the other station's call sign correctly, but you must also copy the serial QSO number each station gives you. If you make an error, you may lose the QSO to the log-checker's red pen.

In the WPX contests, single-operator entrants are limited to operating no more than 36 of the 48-hour contest period. While this may not seem like much of a limitation, for the more serious operator, this is yet another factor that you have to balance when composing an operating strategy. You want to make sure that you take your 12 hours of "off time" when it's least likely to hurt your score, and make sure you're on when you're most likely to make lots of QSOs.

The WPX contests have most of the standard entry categories: Single op all bands, single band, high, low and QRP power plus two multi-op categories — multi-single and multi-multi. The WPX's Multi-single category is a literal one — you can't set up a second station to hunt multipliers on another band while you work all comers on another, and you are required to spend ten minutes on a band once you've made a band change.

CQ has also tried to introduce some new categories to inspire the newer or less-equipped amateur. For newcomers, there is a "Rookie" category for those licensed two years or less. There is also a "Band-Restricted" category for those whose license does not permit them to use all amateur bands. In the U.S., this might appeal to the Novice or Tech-Plus licensees, who have access to only some of the HF bands. Finally, there is a

"Tribander and single-element" (TS) category. This is the category for you if you use a triband yagi or quad on 10, 15 and 20 Meters (i.e. TH6, KT-34, TA-33, etc.) and single-element wire antennas (i.e. dipole, delta loop, long wire, etc.) on 40, 80 and 160M.

Your log

There is excellent software that handles scoring the WPX contests perfectly — CT by K1EA, NA by K8CC and TRLog by N6TR are well worth the investment. SuperDuper by EI5DI is also quite good.

If you prefer to log on paper, you can obtain official entry and log forms for an self-addressed, stamped envelope (SASE) from *CQ* Magazine, 76 North Broadway, Hicksville NY 11801. Be sure to include a "dupe sheet" (a separate list of all the stations you worked on each band — used to detect duplicate contacts) and a "check sheet" listing the prefixes you claim as multipliers.

That address is also the address for entries. Get your logs in within a month of the contest. The results for the WPX SSB contest usually appear in the March issue of *CQ*; the WPX CW results appear in May.

Other March contests

The first full weekend of the month features the ARRL DX SSB Contest, the phone version of the contest that was highlighted in last month's issue.

On the second full weekend, you will hear many stations in the bottom 30 kHz of 80 through 10 Meters calling "CQ BERU" or "CQ CC." This is the Commonwealth Contest, sponsored by the Radio Society of Great Britain (RSGB), and unless you're in a country that is a member of the Commonwealth of Nations, you're not eligible to take part. What is a Commonwealth country you ask? Well, in short, the U.S. isn't one. The more fulsome explanation is that the Commonwealth is made up of most of the countries that were once members of the former British Empire. So, you'll hear lots of Gs, VEs, VKs, ZLs, ZSes and other, rarer places taking part in this nice, clubby 24-hour contest. Gee, if only the "good guys" had won in 1776, the U.S. could have been part of this party. (No flames, please — it's a joke!)

The venerable QCWA holds its annual party the third weekend of the month, there are events focusing on Alaska and Bermuda this month, and an RTTY contest sponsored by the British Amateur Radio Teleprinter Group.

73, and good luck in the contests.

Virginia QSO Party

The Virginia QSO Party will be 21-23 March, 1998 from 1800 UTC 21 March-0500 UTC on the 22nd, and from 1100 UTC 22 March-0200 UTC 23 March.

Plaques will be awarded to: High VA All Mode, VA Mobile, VA Club, Single OP VHF, Single OP QRP, Single OP Out-of VA, single OP Novice/Tech and single OP CW. Certificates will be awarded to the top scoring single operator stations in these categories: Virginia county, U.S. state, Canadian province and DX country.

Work fixed stations once per band/mode. Out-of-State stations work Virginia stations only. No cross-mode or repeater QSOs. Work VA mobiles in each county they operate. Mobiles or fixed stations on county lines count as one QSO and as many county multipliers as they offer. Count fixed stations only once as multipliers. VA mobiles receive a bonus of 100 additional points for each Virginia county in which they log a valid QSO.

Exchange QSO number and QTH (County for VA stations; state, province or DX country for others). VA mobile stations log QSOs by county of operation. Identify all QSOs with band/mode, sequential QSO number sent/received and date/time of contact in UTC.

Frequencies: 160M and up, except no WARC band QSOs permitted. Suggested frequencies: CW — 1805 kHz and 50 kHz up from band edge on others. PHONE — 1845, 3860, 7260, 14260, 21360 and 28360 kHz. Novice/Tech Plus — 10 kHz up from the edge of the CW band and 28360 kHz on PHONE. VHF — 50.125, 147.48 and 223.50 MHz. UHF — 446.00 MHz. All frequencies plus or minus QRM and nets. No Repeater or cross-mode QSOs.

Scoring: Count 1 pt/Phone, 2 pts/CW, and 3 pts/VA mobile QSO (Phone or CW). Virginia fixed stations multiply QSO points by the total number of VA counties, U. S. states, Canadian provinces and DX countries. No extra multiplier for U.S.: VE, KH6 or KL7 (count as states or provinces only). Mobiles add to the Virginia fixed station score 100 bonus points for each VA county in which a valid QSO was logged. Outside of VA, multiply QSO points by the number of VA counties worked (maximum of 95) to obtain final score. Stations in Virginia independent cities select one bordering county as county multiplier.

Follow standard ARRL contest guidelines. Submit separate logs for fixed and mobile operations. Multi operator stations must indicate all operators by call and will be in a separate category. Paper Logs, Summary and Dupe sheets required; no disks please. Summary sheet should include name, mailing address, call sign, number of counties in which operated, license class, club name and a signed statement that all contest rules and regulations have been observed. QRP stations please include a signed statement that transmitter output power was 5W or less at all times. Dupe sheets by band and mode are required for 200 or more QSOs. For Club Competition (minimum of 3 valid club entries), be sure to indicate club name on summary sheet and log. Contestants using computer logging and reporting software are required to verify scoring and duping to ensure contest rules have been followed.

Mail contest entries by 18 April 1998 to VIRGINIA QSO PARTY, Call Box 599, Sterling, VA 20167. Include SASE for a contest result summary.

Hamfests March

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!

•CALIFORNIA•

The **Livermore Amateur Radio Klub** swapmeet will be 1 March, 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. Admission/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.

•CONNECTICUT•

The **Southington Amateur Radio Association** will hold its annual Fleamarket at the Southington High School on Pleasant St. on Sunday, 29 March. Admission donation is only $4 with door prizes and raffles to be held throughout the day. Doors open at 9 a.m.-1 p.m. with space for over 100 tables of new and used computer and amateur equipment. 6-ft. tables are $12 in advance and $15 at the door. Set-up at 7 a.m. Checks payable to S.A.R.A. For further info contact: Chet, KA1ILH, at 860/628-9346. Talk-in 147.345, 224.80, 444.25, 145.49 PL, 77 Hz.

•ILLINOIS•

The **Libertyville-Mundelein Amateur Radio Society** (LAM-ARS), assisted by the **North Shore Radio Club**, will hold its annual LAMARSFEST 22 March at the Lake County Fairgrounds, Rtes. IL-120 & US 45. Large swapfest, commercial exhibitors and technical forums. Rest area, free parking, public cafeterias, VE testing. Admission $5, swapfest tables $10, wall tables $15, commercial tables $25. Advance table reservations until 14 March. Talk-in on 147.345(+) NSRC repeater, 146.52 simplex. Open 8 a.m., setup from 6 a.m. For info write LAMARSFEST 98, 5 Brigantine Lane, Grayslake, IL 60030, or call Dave Gudewicz, KB9KDA at 847/937-8227.

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The **Sterling-Rock Falls ARS** 38th Annual Hamfest will be held on 15 March at the Sterling High School Field House 1608 4th Ave. There will be a large indoor flea market, radio, electronic items, computer and hobby. Free parking, including areas to accommodate self-contained campers and self-contained mobile homes. Dummy load available to test equipment. Tickets $3 advance, $4 at the door. Tables $5 without electricity, $6 with electricity. In groups of tables only one will be $6, rest of group will be $5. Bring your own cord. Set up Saturday 6-9 p.m. and on Sunday beginning at 6 a.m. Doors open to public 7:30 a.m. Sunday. For advance tickets and tables write to Sterling-Rock Falls Amateur Radio Society, P.O. Box 521, Sterling, Illinois 61081-0521 or call Lloyd Sherman KB9APW, 815/336-2434. E-maillsherman@essexl.com Make checks payable to Sterling-Rock Falls Amateur Radio Society. Talk-in on 146.25/146.85 W9MEP Repeater. Advance tickets due to be received by 01 March 1998. Please send SASE.

•INDIANA•

The **Columbus Amateur Radio Club's** 15th Annual Hamfest will be held on 28 March 8 a.m.-2 p.m. (set-up: 27 March 6 p.m.-9 p.m. and 28 March from 6 a.m.). Location will be the Bartholomew County 4H Fair Grounds, Community Building (State Rd. 11, S.W. of Columbus). Admission is $3.50 advance and $4 at door. Table rental is $8 for 8-ft. and $6 for 6-ft. table. Talk-in: 146.790/146.190. For reservations: Marion Winterberg, WD9HTN, 11941 W. Sawmill Rd., Columbus, IN 47201-8000; 812/342-4670; E-mail: winterbe@hsonline.net

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The **Michigan City Amateur Radio Club, Inc.** will be holding its annual Michigan City Hamfest and Computer Flea Market on Saturday, 28 March at Michigan City High School, 8466 W. Pahs Rd., Michigan City from 8 a.m until 2 p.m. CST. Early setup provided for vendors. Admission is $4 and children under 12 are free with a paid adult. Table reservations and general information is available from Ron Stahoviak, N9TPC, 5802 N. 400 W., Michigan City, IN 46360. Tel. 219/325-9089.

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The **Morgan County Repeater Association, Inc.** will host the Indiana Hamfest & Computer Show 08 March 8 a.m. (vendor setup on Saturday) at the Indiana State Fairgrounds, East Pavilion Building, 1202 E. 38th Street in Indianapolis. Features include over 500 indoor tables, nationally advertised and commercial vendors, forums and flea market. Admission at the door is $7. For more information, contact Dennis Bauerfiend, WB9ZNZ at 317/996-3782; e-mail dbauerfiend@cleveland.dfas .mil. Talk-in on the MCRA repeater 147.060 (+).

•FLORIDA•

The **Englewood Amateur Radio Society** is sponsoring Hamcom '98 07 March at the Englewood, Florida, Tringali Community Center (SR 776 Englewood East) 8 a.m.-3 p.m. Talk-in: 146.700. Adm. $3, tables $10. Tailgate with ticket. Contact George Shreve, KA4JKY at 13591 Martha Ave. Port Charlotte, FL 33981; 941/697-3445. E-Mail gshreve@ewol.com

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The **Zephyrhills Area Amateur Radio Club** presents the Phinney Fest in memory of Phinney, WB4UMT. It will be held 01 March 1998, 8 a.m.-2 p.m. at the Zephyrhills Lions Club (5827 Dean Dairy Road, Zephyrhills. Admission $4;

$4 tailgate; inside tables $4. Set-up 6 a.m. Hourly drawings. Food. For information write: ZAARC, P.O. Box 1534, Zephyrhills, FL 33539 or call Ernie, KD4VRV, at 813/783-8389 or e-mail ernamae@zhills.net. Talk-in 147.135.

•MAINE•

The **ARRL Maine State Convention** and 19th annual Andy Hamfest and Computer Fair will be held 06 and 07 March at the Ramada Conference Center, 490 Pleasant Street, Lewiston, Maine, Exit 13 Maine Turnpike. Open Friday 7:00 p.m. and Saturday 8:00 a.m. Scheduled for Friday evening will be forums. Saturday exhibitors and vendors will display their goods. Available will be new and used radio and electronic gear including computers. Special room rates are being offered by the Ramada Inn, $49.00 (plus tax) per day, single or double. Call 207/784-2331 for reservations and mention the Hamfest and Computer Fair. Friday Evening: Forums are scheduled. Saturday: Exam Registrations start 10 a.m., Exams start at noon. Main prize: 2-meter Mobile Transceiver Plus many other door prizes, Table rates are: One table plus one admission $10. Additional tables $6 each. Saturday general admissions $5 each. For reservations and additional information contact: Ivan Lazure, N1OXA, 207/784-0350; e-mail ilazure@gwi.net or Rick James, N1WFO, 207/784-1266; e-mail rjames@dlois.com. Other Queries write to: AARC, Inc., P.O. Box 1, Auburn, ME 04212-0001.

•MICHIGAN•

The **Southern Michigan Amateur Radio Society** and the Marshall High School Photo Electronics Club are sponsoring the Michigan Crossroads Hamfest which will be held on Saturday, 14 March at Marshall High School (I-69 to I-94 then East to Exit 110 or I-94 to Exit 110. Then south and east to school. Follow the signs). Open 8 a.m.-3 p.m. (set up at 6 a.m.). Admission is $3/advance and $4/at door. Table reservations are $1 per foot (min 4-ft.). Make check payable to SMARS. Send SASE to: SMARS, P.O. Box 934, Battle Creek, MI 49016. Call Wes Chanley, N8BDM, 616/979-3433.

•MISSOURI•

The **Ararat Amateur Radio Shrine Club** is sponsoring Hambash '98 on 14 March at the Ararat Temple (5100 Ararat Drive, Kansas City). Admission: 3/$5 in advance or $3ea. at door. Open 8 a.m.-2 p.m. (set-up at 6 a.m.). Free parking. Hourly door prizes. 8-ft. tables $15. For table reservations or information: Steve Dowdy, WJØI, 12411 Olive, Kansas City, MO 64146; Tel. 816/941-3392; Fax 816/941-3208; e-mail sdowdy@ qni.com. For advance tickets: Ray Pautz, WAØKDE, 13 S.E. 125 Rd., Warrensburg, MO 64093.

•NEW JERSEY•

The **Shore Points Amateur Radio Club** will sponsor, "Springfest '98," 07 March, 8 a.m. (vendor set-up 6:30 a.m.) at Holy Spirit High School, Rte. 9, 3/4 mile south of Rte. 30, in Absecon. Features include 8,000 sq. ft. heated indoor selling area, outdoor tailgating (weather permitting), free parking, and refreshments. Admission $5 (non-Ham XYLs and children free). Tables (indoors) are $7 per 8-ft. section in advance, $10 at the door. Outdoor tailgating (weather permitting) is $5 per painted parking space (first come, first served, no reservations accepted). Talk-in: 146.985(–) PL 146.2. SPARC, P.O. Box 142, Absecon, NJ 08201, or call Eva, KB2QXU, at 609/407-2923.

•OHIO•

The **Lake County Amateur Radio Association (LCARA)** will be holding its 20th annual Hamfest 22 March, 8 a.m.-2 p.m. at Madison High School on North Ridge Rd. in Madison. VE testing, DXCC and WAS checking, Ham-related forums and a test bench. Hourly door prize drawings. Admission is $5. 6-ft table $8 and 8-ft table $10. For table reservations call Roxanne, 440/256-0320.

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The **Toledo Mobile Radio Association (TMRA)** will hold the 43rd Annual Hamfest/Computer Fair Sunday, 15 March, 8 a.m.-3 p.m. at the Lucas County Recreation Center, 2901 Key St., Maumee, OH. The event is all indoors with approximately 500 tables. Parking is free. Talk-in on 147.27(+) or 442.85(+). Please send SASE to TMRA HAMFEST TABLES, P.O. Box 273, Toledo, OH 43697-0273 for table application. Table application form must be received by March 1st. Tickets are $4.50 in advance and $6.00 at the door. Deadline for advanced tickets ordered by mail is 01 March. For advance tickets please send SASE to TMRA HAMFEST TICKETS, P.O. Box 273, Toledo, OH 43697-0273. For other information send SASE to TMRA, P.O. Box 273, Toledo, OH 43697-0273 or Paul Hanslik, N8XDB, TMRA, P.O. Box 273, Toledo, OH 43697-0273, 419/243-3836.

•PENNSYLVANIA•

The **Keystone VHF Club** is sponsoring the Hamfest/Computer Show, Tailgating, VE testing on Sunday, 15 March from 8 a.m.-3 p.m. at York County Vo-Tech School (500 yards south of Exit 6, I-83). Talk-in: 146.97, 447.275. Admission is $5. Contact: Ted Rodes, 17 Sedgwick Dr., East Berlin, PA 17316; 717/259-8063; Webpage: http://members.aol.com/yorkfest

•TENNESSEE•

The **Middle Tennessee Amateur Radio Society (MTARS)** will be holding its annual Hamfest on 28 March at the National Guard Armory (Hwy. 55 Tullahorna, TN). Dealers set-up 7:30 a.m.; public 8 a.m.-3 p.m. Tables $10; admission $3, children under 12 free. Talk-in: 146.70 (–). Info Larry Marshall, WB4NCW, 931/455-0070; e-mail lmarsh@edge.net; or Ian Haynes, AB4SW, 931/649-5187; e-mail ithaynes@edge.net

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The **Shriners of the Kerbela Amateur Radio Service** will sponsor the KERBELA HAMFEST at the Kerbela Shrine Temple, Knoxville, TN, on Saturday, 14 March from 8 a.m.-4 p.m. Admission is $5.00. Indoor vendor tables are $8.00 each plus admission of $5.00. Setup Friday from 4-8 p.m. and Saturday 5-8 a.m. Overnight security provided. Talk-in on 144.83/145.43 or 146.52 simplex. Smoking indoors permitted in designated area only. For additional information contact Paul Baird, K3PB, 1500 Coulter Shoals Circle, Lenoir City, TN 37772; 423/986-9562.

•TEXAS•

The **Midland Amateur Radio Club** will be holding their annual St. Patrick's Day Hamfest 14-15 March 9 a.m.-5 p.m. on Saturday, and 8 a.m.-2:30 p.m. Sunday at the Midland County Exhibit Building. This is also the ARRL West Texas Division convention. Some of the many features include a huge flea market inside, many dealers, a large tailgate area, T-hunts, and a full service concession stand serving hot meals. V.E. exams will be given at 1 p.m. on Saturday. Pre-registration is $7. Registration at the door will be $8. Tables are $12 each for the first four, and $17 each for each additional table over four. For more information, contact the Midland Amateur Radio Club at P.O. Box 4401; Midland, TX 79704; or contact Larry Nix, N5TQU, by e-mail: oilman@lx.net. Also, see our Hamfest flyer and download a registration form at: http://www.lx.net/edge/midswap.html

•VIRGINIA•

The Vienna Wireless Society will hold its ARRL Hamfest WINTERFEST at the Vienna Community Center, Park & Cherry Streets, in Vienna, VA (near Washington, D.C.), on Sunday, 22 February 1998. Frostbite Tailgate opens 6 a.m. on a first-come basis. Indoor area opens 8 a.m. Admission is $5, tailgate space is $10 including admission. ARRL VE exams at 9 a.m. on Saturday, the day before ONLY. Talk-in on 146.91(-) & 146.685(-). For more information, contact Mike K3MT, 703/834-5000 ext. 2729.

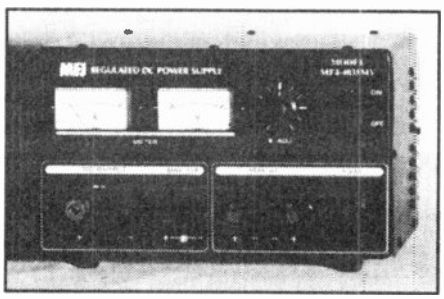
•WASHINGTON•

The 17th annual **Mike & Key ARC** Electronics Show and Fleamarket will be held on 07 March at the Pavilion Exhibition Hall of the Western Washington Fairgrounds with 40,000 sq. feet of exhibition space. We have space for over 300 tables and 15 commercial booths. In addition, there will be free parking, VE exam sessions, a snack bar, Consignment area, ARRL, and local Club info. Tables are $20 each and registrations are $5. Admission is $5 — under 16 free with adult. For info: 253/631-3756 (eves. & weekends). E-mail: mwdink@eskimo.com Free overnight parking (Friday, 06 March) for self contained RVs.

•WISCONSIN•

The **Tri-County Amateur Radio Club** will hold Hamfest 1998 on Sunday, 15 March at the Jefferson County Fairgrounds Activity Center (Hwy. 18 West, Jefferson, WI) from 8 a.m.-2:00 p.m. There will be VE testing (new or upgrade). Good Food. Electricity Available. Equipment Test Table (Does it work? Try it out). Vendors will be admitted at 7 a.m., others at 8 a.m. only. Plate Lunches and Beverage provided by Jefferson County 4-H. HANDICAP ACCESSIBLE. Talk-in on the 145.49 repeater. Admission is $4, 6-foot Table Space is $5, 8-Footers are $6. Send your SASE to: TCARC, W9MQB, 711 East Street, Fort Atkinson,WI 53538; 920/563-6502 evenings.

Information in "New Products" is supplied by the manufacturers to acquaint *Worldradio* readers with new products on the market.



MFJ's DC power supply

MFJ Enterprises, Inc. announces the new MFJ-4035MV 35/30 Amp Adjustable Regulated DC power supply for only $149.95 each!

MFJ's new heavy duty power supply features 35 amps surge and 30 amps continuous, and is adjustable and regulated.

The MFJ-4035MV voltage is front panel adjustable from 1-14 VDC with detent set at 13.8 VDC. The power supply has lighted front panel meters and an ON/OFF switch.

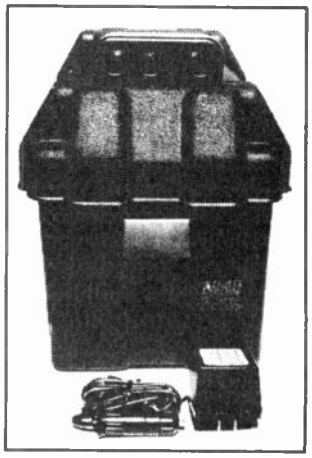
Three different OUTPUT terminals include a five-way binding post for HF/VHF radio, two pairs of quick connects for low current accessories, and a cigarette lighter socket for mobile accessories. It has a front-panel fuse holder for convenient fuse replacement. The volt-meter and amp-meter monitor load continuously. A quiet internal cooling fan generates a tremendous airflow keeping components cool.

MFJ's new 35/30 Amp Adjustable Regulated Power Supply has a built-in circuit protection that'll protect your investment. The circuit protection will automatically shut down the power supply when it is drawing too much current. Has convenient 110 VAC input, plugs into your nearest VAC wall outlet.

The new MFJ-4035MV 35/30 Amp Adjustable Regulated DC Power Supply is protected by MFJ's famous No Matter What one-year limited warranty.

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

12V home power: cheap and Power-Safe



The Power Port Power Safe, by Cutting Edge Enterprises, has everything you need for a 75-200 amp uninterrupted power supply — except for that old

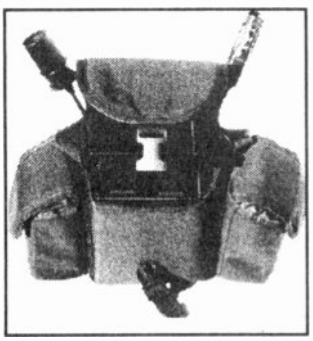
car battery sitting in your garage. We offer three DC models designed for light, medium or heavy use. All models come with a heavy duty, vented battery enclosure suitable for use in the home, triple port automotive cigarette outlets for DC use, and fully automatic chargers. Our Deluxe model also provides 500 Watts peak AC power (300W continuous). Its tidy dimensions: 18"x9.5"x10.5" are big enough to fit a 125 amp-hour battery, but small enough to fit under your desk or transport easily in your car.

At home or in the field, in daily use, as well as during emergencies, this clean, portable unit will keep your equipment fully powered with ample capacity. DC models range in price from $66-$168. The deluxe AC/DC model $230.

For extended operations in the field, Cutting Edge has a full line of accessories including solar cells, lights, DC extension cords, etc.

For further information and pricing contact: Roger Hall @ Cutting Edge Enterprises, 1803 Mission St., Suite #546, Santa Cruz, CA 95060. Phone 800/206-0115. E-mail: cutedgent@aol.com

Power tools on the go



Responding to the needs of power tool and light machinery users, Cutting Edge has introduced a new portable power supply to meet the need. PowerPort 259 supplies up to 500 Watts to start heavy loads, with a continuous output of 250 Watts at 115 volts AC. On the DC power side, it will provide up to 20 amps. Two AC, and one DC outlet, make several tools or lighting combinations available to you at once.

Hand portable and compact (4.25" x4.5"x6"), this system is based on a 12-volt, 9 amp-hour power cell and weighs only 9 pounds. Think of it as a small, silent generator to energize your equipment wherever conventional sources of power are limited or unavailable. PowerPort can be charged in your vehicle through the cigarette lighter without requiring the engine to be running. It is also equipped with a fully automatic wall charger which can be left plugged in without the fear of overcharging your battery.

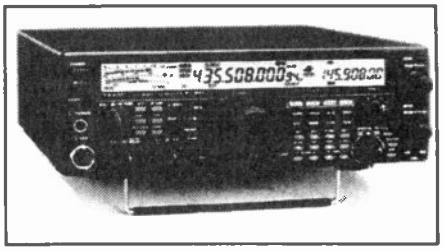
The PowerPort 259 is the perfect device for running and charging small hand tools (drills, routers, Dremel tools etc.), small motor machines such as sewing machines or fans, TVs, VCRs, handheld radios, test equipment, emergency lighting, handheld GPS receivers, laptop computers, video cameras, fax machines and more in the field.

ThePowerPort 259-250W, 9 amp is $179.95+shipping; Powerport 149-140W, 9 amp is $159.95+shipping; and the Powerport 50-50W, 7 amp is $119.95+shipping.

For further information contact: Cutting Edge Enterprises, 1803 Mission St., Suite #546, Santa Cruz' CA 95060; Tel. 800/206-0115 e-mail: cutedgent@aol.com

HFNHF/UHF Satellite Transceiver

Yaesu U.S.A. announces the introduction of the FT-847 HF+50/144/430 MHz Multimode Earth Station Transceiver to their high-tech transceiver family. Building on the popularity of its FT-736, Yaesu has incorporated leading-edge technology for improved satellite and weak-signal terrestrial VHF/UHF work, and added HF plus 50 MHz coverage, in a remarkably compact package. The FT-847 Earth Station provides 100 Watts of power output on 160 through 6 Meters, and



50 Watts output on 144 MHz and 430 MHz, with general-coverage HF receive capability. Independent antenna ports are provided: one each for HF, 50 MHz, 144 MHZ, and 430 MHz.

The front panel's multi-function Caribbean Blue Display includes dual frequency registers, digital metering, and a wide variety of status displays. The FT-847's compact size (10.2"x3/4"x10.6") makes it ideal either for base station, Field Day, vacation, or VHF/UHF "rover" expeditions.

Important features of the FT-847 Earth Station include: crossband full duplex capability with normal/inverted tracking for satellite work; built-in low-noise preamplifiers; DSP Noise Reduction, Notch, and Bandpass Filters; AFSK I/O port for teletype, HF packet, AMTOR, or high-speed CW work; 1200/9600 bps packet jack for VHF/UHF; two tuning knobs plus Shuttle-Jog dial for easy frequency navigation; direct keyboard frequency entry; Digital Speech Processor; adjustable CW pitch/side/one; alphanumeric label tags for labeling satellite memories; built-in CW electronic keyer with weight control; built-in CTCSS/DCS encode-decode operation for FM; and a high speed (up to 57600 bps) CAT port for external computer control. Available options include Collins mechanical filters and the FVS-1A Voice Synthesizer for visually impaired operators.

The FT-847 will be available in February, 1998, at all authorized Yaesu dealers.

Cable X-perts Catalog

CABLE X-PERTS, INC. is pleased to announce the the release of their new 1998 catalog. This latest catalog has helpful technical information, lots of new products, and detailed pictures. Prices are included too. This catalog will be an essential part of any starting or upgrade radio station. So get your copy today by visiting our web site www.cablexperts.com calling, faxing, or by e-mail cxp@ix.netcom. com

CABLE X-PERTS, INC., 416 Diens Dr., Wheeling, IL 60090. Tech: 847-520-3003. Fax: 847/520-3444.

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

State	City	Contact	Notes
Alabama			
4/01/97	Mobile	David, WA4VAC 205/649-5229	
4/14/98	Rainbow City	Gene, KC4TFF 205/492-8194 or Lloyd 205/547-0358	w/i
Arizona			
4/11/98	Tucson	Joe, K7OPX 520/886-7217	w/i
Arkansas			
4/11/98	Forrest City	Tom, KK5YN 501/633-4207 or Preston, NØHNQ 501/630-1168	w/i
4/18/98	Gassville	Phil, AB5ZU 870/425-7406	p/r pref.
4/12/97	Siloam Sprgs	Mike, KJ5OP 501/524-8090	p/r
California			
4/30/97	Anaheim	Robert, AC6JM 310/429-8275	p/r pref.
4/12/97	Brea	Robert, KD6DA 310/691-1514	p/r
4/5/98	Chico	Jackie, W6YKU 916/342-1180	p/r pref.
4/18/98	Clearlake	N6UZQ, 707/994-1133	w/i
4/23/98	Colton	Harold, AB6RN 909/825-7136 days or 909/685-6073 eves	p/r pref.
4/5/98	Concord	Gene, WW6H 510/254-5090	w/i only
4/25/98	Culver City	Scott, K6PYP 310/459-0337 or Dave N3BKV 818/559-2572	w/i
4/04/98	Culver City	Clive, AA6TZ 310/827-2538	w/i pref.
4/5&19/97	Cupertino	Emmett, AE6Z 408/243-8349	w/i only
4/19/97	Downey	Wes, KA3DSE 310/923-5598	p/r pref.
4/26/97	Escondido	Harry, WA6YOO 760/743-4212	p/r
4/25/98	Escondido	Harry, WA6YOO 760/743-4212	p/r
4/17/97	Fountain Val.	Allan, AB6UB 714/531-6707	p/r pref.
4/7/98	Fremont	Dennis, K6DF 510/791-0914	w/i only
4/5/98	Hanford	Carleton, AA6GZ 209/924-4221	w/i only
4/11/98	Harbor City	Elvin, N6DYZ 310/325-2965	p/r
4/26/97	Jackson	Ray, AA6EW 209/296-3412	p/r pref.
4/25/98	Lake Isabella	Ham HOTLINE 760/379-2947	p/r pref.
4/19/97	Long Beach	Donald, NN6Q 310/420-9480	p/r pref.
4/21/97	Mission Viejo	Louis, 714/951-0336	p/r
4/27/98	Montclair	Steve, 909/597-2249	w/i pref.
4/26/97	Pomona	Don, WA6HNC 909/949-0059	p/r pref.
4/18/98	Redwood City	Joe, KB6OWG 408/255-9000	w/i only
4/17/98	Sacramento	Dick, N6DK 916/383-2113	p/r
4/11/98	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
4/09/97	Santa Ana	Red Cross 714/835-5381 x140	w/i
4/12/97	Santa Rosa	Claude, 707/527-8593	p/r pref.
4/26/97	Sonoma	Jim, 707/996-6461	p/r pref.
4/18/98	Stockton	Mark, W6DKI 209/465-7496	w/i
4/11/98	Sunnyvale 1	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
4/25/98	Upland	Warburg, WA6HNC 909/949-0059	p/r
Colorado			
4/11/98	Denver	Glenn, WØIJR 303/366-0155	w/i pref.
4/05/97	Littleton	Dave, NØHEQ 303/795-5718	w/i pref.
Connecticut			
4/17/97	Trumbull	Kevin, N1KGM 203/268-5015 or Bob, KA1ZMF 203/933-9587	
Florida			
4/10/97	Ft. Myers	Norm, AF4AZ 941/694-2505	w/i
4/18/98	Melbourne	Bill, WB9IVR 407/724-6183	p/r pref.
4/11/98	Miami	Bill, WA4TEJ 305/284-2323	whatever
4/12/97	Panama City	Al, NZ5W 904/235-0186 or Charles, N4DPU 904/785-0449	
4/24/97	Pensacola	Steve, KO4TT 904/968-1092	
4/17/97	Vero Beach	Roger, K4RS 561/567-3979	w/i
Georgia			
4/25/98	Dalton	Bert, N4BZJ 702/259-5625 or Harold, N4BD 706/673-2291	w/i
4/4/98	Ellijay	Hugh, 4D4E or Dorothy, N4DTC 706/276-6660	w/i
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1998 CD-ROMs: CALLBOOK - $39.95; QRZ! - $ 16.95. 1997 Callbook FINAL EDITION - $32.95/ea. 1998 ARRL Handbook - $30.95. POSTPAID. (CA residents: add 7.75%). DUANE HEISE, AA6EE, 16832 Whirlwind/W2, Ramona, CA 92065. 760/789-3674, aa6ee@amsat.org 298

GOOD RADIO LOCATION (no antenna restrictions beyond a 35' tower) for sale by owners. Cozy, older 3BR, 1.75 bath (walk-in shower), 1,763 sq. ft. home includes large game/rumpus room (great for kids), 2-car garage with RV shed attached and room for a shop. Front newly landscaped. Close in to local shopping and restaurants. Asking $79,900. PAUL RHOADS, WB6TUT, 57404 Crestview Dr., Yucca Valley, CA 92284; 760/365-3483. 2-398

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WANTED: HAM EQUIPMENT AND RELATED ITEMS Donate your excess gear or related items, new, old, in any condition, to the Radio Club of Junior High School 22, the Nation's only full time non-profit organization working since 1980 to get Ham Radio into schools around the country as a teaching tool using our EDUCOM – Education Thru Communication. Send your radio to school. Your donated material will be picked up anywhere or shipping arranged and this means a tax deduction to the full extent of the law for you as we are an IRS 501(c)(3) charity in our 17th year of service. It is always easier to donate and usually more financially rewarding, but most important, your gift will mean a whole new world of educational opportunity for children nationwide. Radios you can right off, kids you can't. Make 1997 the year to help a child and yourself. Write, phone or Fax the WB2JKJ "22 CREW" today: The RC of JHS 22, P.O. Box 1052, New York, NY 10002. 24 hours Call 516/674-4072, Fax 516/674-9600, e-mail: crew@wb2jkj.org internet: www.wb2jkj.org Join us on the WB2JKJ Classroom Net, 7.238 MHz. 1100-1230 UTC daily and 21.395 MHz. 1400 to 2000 UTC. Meet us at the Charlotte Hamfest. 298

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Off the air

(Continued from page 18)

Perhaps other Hams also received Ray's special card. Pat is not aware if Ray is still operating or not. I'm sure Pat would appreciate hearing from anyone who worked Ray, or has information about him. Pat's address is: Patrick Donahue, 1822 SE 139th Ave., Portland, OR 97233-2402.

CARL J. HENNIGER, KA7GHR
Beaverton, OR

Julie's view

Imagine my embarrassment when my husband finished reading my article, "Julie's view of Field Day," in your February issue and noted I failed to mention his call sign anywhere in the article. I read the story in your publication and verified this sad and quite humiliating fact. After all, Glenn, N7JWF, was the main reason I wrote the article in the first place! Good man that he is, he was not bothered by this huge oversight on my part. I'm quite disturbed I could fail to include the call sign of the article's main character, who also happens to be my better half! Could you amend my mistake by mentioning this oversight in your next issue (with my SINCERE apologies to Glenn!)??

JULIE WADE, KC7FQI
Phoenix, AZ

Thanks for the chuckle

The modified picture of young Lil Paddle wearing Kurt hat (Feb 98 ***Worldradio)*** made my day... so much so that I just had to call today to order a Kurt hat for myself.

Although I won't be able to make it to the Dayton Hamvention to participate in the great "ohming" with the other Kurt-cap-wearers, I'll wear mine to the annual regional Mike & Key hamfest this March here in Washington. If anybody asks about the hat, I'll simply say that it means "I'm one of the enlightened."

RICH STUART, WF7A
Vashon, WA

QRP suppliers — *last, but not least*

WAYNE REED, K9NE

Listed below are suppliers who deal with QRP-related supplies. This is the final installment of Wayne's list.

•SMITH ENTERPRISES, 48788 Silver Valley Rd., Newberry Springs, CA 92365;619/257-3366; Fax619/257-3198; **QRP 'Fireball' kit.**

•SPI-RO MFG. INC., Box 2800, Hendersonville NC 28793; Tech 704/693-1001; Fax 704/693-3002; **Wire antennas, antenna comp., catalog.**

•SUNLIGHT ENERGY SYSTEMS, 225 Mayflower NW, Massillon OH 44647; 330/832-3114; Fax 330/832-4161; **Solar energy products.**

•SYNTHETIC TEXTILES, INC., 1145 N. Grove St., Anaheim CA 92868; 714/630-2134; **Antenna rope, samples and catalog.**

•TEJAS KITS, 9215 Rowan Lane, Huston, TX 77036;713/772-6739; **Tejas kits, catalog ($1).**

•TEN-TEC, INC., 1185 Dolly Parton Parkway, Sevierville, TN 37862; 800/833-7373; 615/435-7172;615/428-4483; Repair 423/428-0364; **Transceiver kits, enclosures.**

•TRUSCOTT'S ELECTRONIC WORLD, 30 Lacey St., Croydon, Victoria 3136, Australia; ++3-9723-3860; Fax +3-9725-9443; **Parts, kits, test equipment, solar.**

•UNIVERSAL ELECTRONICS, INC., 4555 Groves Road, Columbus, OH 43232; 614/866-4605; **Coax seal, catalog.**

•VAN GORDEN ENGINEERING, Box 21305 S. Euclid, OH 44121; 216/481-6590; Fax 216/481-8329; **QRP transmitter kit, antennas, catalog.**

ADVERTISERS' INDEX

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•**AERIALS,** *by Kurt N. Sterba & Lil Paddle*

Back by popular demand, the original collection of antenna columns from the early years with Sterba and Paddle. 2nd printing; 112 pp.; $11.00+$2.00 s/h ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.85 tax.

•**NEAR VERTICAL INCIDENCE SKYWAVE COMMUNICATIONS — THEORY, TECHNIQUES AND VALIDATION**

by LTC David M. Fiedler & MAJ Edward Farmer, AA6ZM, P.E.

A compilation of previously published articles regarding NVIS propagation and communication — a mode which allows medium frequency radio waves to "leap tall mountains in a single bound," enabling continuous, dependable coverage of areas of operation spanning several hundred miles. 144 pp., over 100 illustrative figures & tables. $14.00+$2.00 s/h. ($4.00 for non-U.S. ZIP air delivery.) CA residents add $1.09 tax.

•**SIX METERS, A GUIDE TO THE MAGIC BAND,** *by Ken Neubeck, WB2AMU*

A labor of love by the author, the book provides comprehensive information on Six Meter equipment and modes. A little history of the Golden Age of Six Meters is provided along with some explanations for the causes of various forms of propagation. 80 pp. $12.00+$2.00 s/h. ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.93 tax.

•**THE LITTLE PISTOL'S GUIDE TO HF PROPAGATION,** *by Robert R. Brown, NM7M*

Explains the intricacies of HF propagation so that average- to low-power operators can more efficiently take advantage of ionospheric conditions to make those rare DX contacts. 128 pp., 85 figures. $10.00+$2.00 s/h. ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.78 tax.

•**EVERYTHING YOU FORGOT TO ASK ABOUT HF MOBILEERING,**

by Don Johnson, W6AAQ

This long-anticipated update on mobile antennas is packed with tips garnered from amateurs all over the country who have found a better way to adapt their mobile antenna installation to their specific needs. 64 pp., many photos and figures. $8.00+$2.00 s/h. ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.62 tax.

•**INSIDE AMATEUR RADIO,** *by Lenore Jensen, W6NAZ*

Interviews with the people who make Amateur Radio the interesting hobby that it is. A collection of short stories and anecdotes detailing courageous rescues, hilarious situations and heartwarming tales, as told by the hams who made them happen, through the "pen" of someone who truly knew what it was about inside Amateur Radio. A must for every ham shack coffee table. 93 pp., $9.00+$2.00 s/h ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.70 tax.

•**WHEN THE BIG ONE HITS,** *A Survival Guide for Amateur Radio Operators ,*

by Jerry Boyd, KG6LF & Jay Boyd, KN6BP

Tells Amateur Radio operators what to do to prepare for survival, safety of families and loved ones, and perform disaster communications duties efficiently in the face of disaster. 56 pp., $7.50+$2.00 s/h. ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.58 tax.

•**THE BEST OF BEASLEY,** *by Robert Beasley, K6BJH*

"Oh to see ourselves as others see us...." A wacky view of Amateur Radio through the eyes of a very clever artist. Great gift for a fellow amateur. 112 pp., $8.00+$2.00 s/h. ($4.00 for non-U.S. ZIP air delivery.) CA residents add $.62 tax.

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Hams continue aid in the iced-in Northeast

Radio amateurs are in their second week of helping deal with effects of a record-shattering ice storm. In Maine, members of the Central Area Repeater Association were asked to provide communications for Red Cross vehicles delivering food to storm victims. Amateurs were also asked to go door-to-door to check on people in the Winthrop area.

Vice-President Al Gore visited some of the areas hit hardest by the devastating storm. He used Amateur Radio to talk with Clarence Rider, AA1PN, to get an idea of the storm's effects. Gore spoke from the RACES station in the State House in Augusta. President Clinton declared parts of Vermont, New Hampshire, Maine and New York federal disaster areas. Damage is expected to reach into the tens of millions of dollars. Travel remained impossible in many areas.

Michelle Mann, W1GU, Maine's ARRL Section Manager, said radio amateurs responded to various requests for communications assistance. In areas where repeaters remained off the air, they monitored 146.52 MHz. Amateurs in other areas of Maine assisted local emergency management agencies with communications services.

In Northern New York, the FCC asked amateurs to recognize what it called a voluntary communications emergency. The Commission asked hams to reserve several 2-meter repeater frequencies for emergency messages. ARES and RACES groups were working together, helping the Salvation Army, Red Cross and other agencies.

In Canada, 800,000 people were without power more than a week after the storm hit. Full repair to power and telephone networks is expected to take months. — *ARRL, Newsline, TWIAR*

Region #3 wants more ER communications

Region 3 of the International Amateur Radio Union wants a worldwide rules change that will permit more amateurs to become involved in disaster communications according to a report on the latest Region 3 meeting held in Beijing, China.

There, delegates found Amateur Radio played a vital role in providing communications during last year's earthquakes in India and Japan, the wildfires in Australia, typhoons in the Philippines, floods in Thailand and cyclones in Bangladesh. This has convinced member societies that more effort should be made in training radio amateurs to perform more effectively in these situations. As a result, Region 3 member societies favor changes in international radio regulations in order to relax third party traffic restrictions to encourage the establishment of more on-the-air training nets.

Region 3 will face stiff opposition from ITU Region 1. Many Region 1 nations classify Amateur Radio as a sport rather than a communications service. As previously reported, in some European nations amateurs are forbidden to play any role in providing emergency service communications. With only a few exceptions, that job is reserved for CBers or other designated operators, if radio hobbyists are permitted to take part at all. — *IARU Region 3 Meeting Notes; Newsline*

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