

WORLD RADIO

Year 29, Issue 3

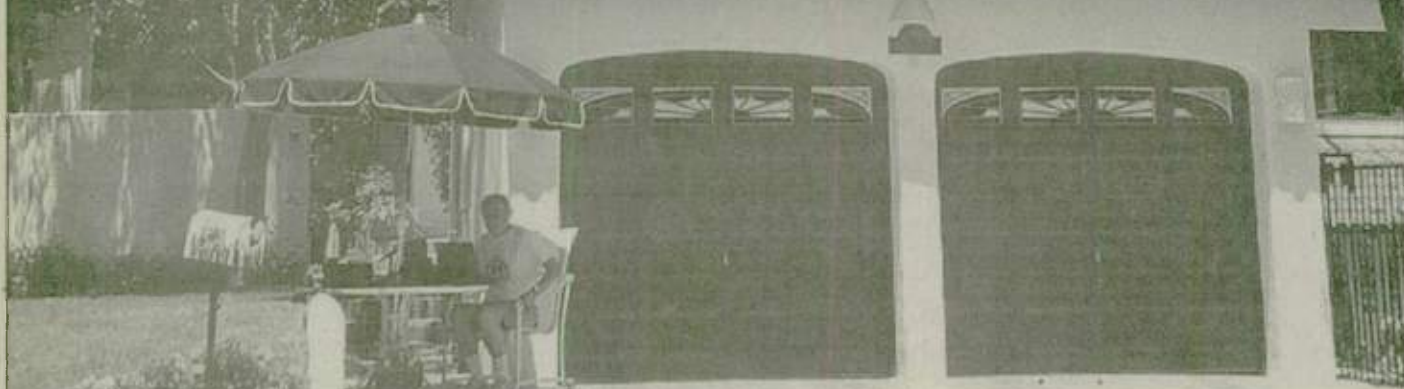
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Maritime CW... the last message — 6



W6AQ's front yard Field Day — 11

Florida CBer fined for harassing amateurs

The FCC has levied a \$20,000 fine against a Florida man for violations stemming from alleged unlicensed operation on Amateur Radio frequencies. Describing him as a CB operator, the FCC says that he was on the Amateur Radio bands without a license and was caught interfering with bonafide Amateur Radio communications.

The FCC is accusing William Flippo of Jupiter, Florida of willful operation of an unlicensed radio station on 28.375 MHz, willful and malicious interference with ongoing Amateur Radio communications, and with failing to let FCC representatives inspect his radio equipment. All of the alleged violations are said to have occurred on 08 June.

The FCC's Compliance and Information Bureau has been investigating complaints from amateurs in the Jupiter area for

nearly two years. After experiencing intentional interference on 10 and 2 Meters, local amateurs provided the Commission with audio tapes and the results of close-in monitoring and direction finding.

Subsequently, an FCC agent used direction-finding techniques to determine that intentional interference to amateur traffic "was occurring and that the intentional interference was being transmitted from the residence of William Flippo." The FCC agent, accompanied by a local sheriff's deputy, attempted to inspect the radio equipment at Flippo's residence on 08 June but Flippo reportedly refused to allow any inspection to take place.

The notice of monetary forfeiture was sent to Filippo on 12 July by FCC Tampa District Director Ralph M. Barlow. Filippo was given the customary thirty days to respond. — *FCC, Newsline*

FCC questions tests

FCC Chief Rules Enforcer Riley Hollingsworth has written to several amateurs regarding the answer sheets to their Amateur Radio exams. Hollingsworth wants the applicants to explain why several questions were answered with marks using two different pens.

All of the applicants took part in an exam session held in Yonkers New York on 02 May. Hollingsworth asked all four if all of the marks on the answer sheets were made by them, if there were any marks on the answer sheets at the start of the exam and any discussions that the applicants may have had with the examiners.

The city of Yonkers is about 25 miles North of New York City and there a numerous exam opportunities in the Metro New York area. What may have brought suspicion to this exam session is that one of the applicants traveled up to Yonkers from the borough of Brooklyn. This is a solid hour and a half drive with no traffic. Another applicant being questioned regarding the test session has a home address in Michigan. Hollingsworth's letter stressed that no accusations of wrongdoing are being made against anyone at this time. — *FCC, Newsline*

Oregon antenna bill becomes law

Oregon's Governor has signed Senate Bill 879 placing PRB-1 language into the states statutes. Oregon's version contains 70-foot minimum height language similar to that of Wyoming.

Bob Shelby, W7FPY reports via the ARRL Letter that the Oregon House approved the measure 53 to 3 after the Senate had passed it 26 to 0. — *ARRL, Newsline*

Louisiana PRB-1 bill signed by governor

Louisiana Governor Mike Foster has signed PRB-1 legislation (House Bill 2088) to limit the control of local jurisdictions to regulate Amateur Radio antennas. The measure takes effect 15 August. Louisiana Section Manager Lionel "Al" Oubre, K5DPG, has expressed his thanks and appreciation to all who helped make the bill a reality. It passed both chambers of the legislature unanimously. — *W5CTV, ARRL Letter*

ARRL Board opposes protected weak signal subbands

The American Radio Relay League held its second board of directors meeting 17 July. Among items discussed was the Central States VHF Society petition to the FCC for protected weak signal spectrum. While it supports the intent of the rule making request, the ARRL Directors feels that protected subbands for weak signal operations are not needed. At least not this time.

Instead, the Directors prefer the idea of trying to educate the users of wideband modes such as packet and FM voice. They want a voluntary approach where the users of wideband modes are told where it is and is not advisable to operate.

This board decision is not setting well with the weak signal community. They say they need government protection and they need it now. Weak signal interests are vowing to get the FCC to enact protected subbands whether the ARRL wants them or not. As a result, FM and packet interests are just as vocal in their opposition.

For a full report on what the ARRL accomplished at this summers meeting, go to the League's website. It is at www.arrl.dog and check the latest W1AW bulletins. — *ARRL, Newsline*

FCC vs. K1MAN — round 2

The FCC has asked a Maine Amateur Radio operator, Glenn Baxter, K1MAN, to explain why his station was allegedly on the air without a control operator present.

K1MAN is well-known to many amateurs as Executive Director of the American Amateur Radio Association, and as manager of IARN, the International Amateur Radio Network, which, since 1995, has been running a daily 90-minute talk show, with phone calls from listeners, on 80 and 20 Meters. These programs are repeated nine times each day, for a total of 15 hours of daily programming. It was apparently these long hours of on-air time that got the FCC's attention.

In a 25 June letter to Baxter, FCC amateur enforcement chief Riley Hollingsworth, K4ZDH, noted that the station "makes daily radio transmissions apparently totaling 110 hours per week." He said Commission officials tried to inspect K1MAN while it was on the air, on

two consecutive days in May, but found no one at the station site or at Baxter's residence.

Hollingsworth asked Baxter to provide the commission with information about his operations, including: The name, address, and phone number of the K1MAN control operator on the days the FCC inspectors were there; Where that person was when the station was on the air; The K1MAN programming schedule for a 17-month period, along with the name, address, and phone number of the control operator for each transmission period; Details and schematics of any remote control or automation control circuits used in the station; and a variety of other specific information.

The FCC letter tells Baxter that the information that he submits will be used to determine what action, if any, will be taken in this matter. K1MAN was given the usual thirty days to respond. — *FCC, W2VU, Newsline*



On the cover

Dave Bell, W6AQ, took a different approach to Field Day this year and invited his neighbors to stop by his front yard for an Amateur Radio demonstration.

— page 11.

The last message

The last commercial maritime CW station in North America ceases Morse operation.

— page 6.



Amateur Radio in China secured

Martti Laine, OH2BH, not only works in China, he's helping establish Amateur Radio clubs.

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Next month: 10-10 International News, Computers & Basic Stuff, Positively CW, Wires & Pliers, With the Hand-Hams and Youth Forum.

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See *Worldradio*, Oct. 1994 issue.



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Editor's Log

Making their way down the hallowed halls and joining the continuing celebration of Lifetime subscribers are:

- Jeffrey S. Anderson, N9ZUT
ROCKFORD, IL
- John Ahlstrom, KQ6CK
CITRUS HEIGHTS, CA

And patiently waiting for a long, long time for his name to appear on this list is:

- Britt Mulhollem, WB4GAD
OCALA, FL

What goes on in this never-ending celebration? All Lifetime subscribers are sworn to secrecy. You'll just have to join them to find out!

Has our lifestyle finally become a matter of priorities? I can understand if someone needs to go to a family reunion, wedding, funeral, party or another important function. These are things that all of us have to take care of when they come up.

When some of us were young, the only care in the world we had was to have some fun. What can be more fun than sitting down and getting that one more contact for DXCC on a band, or that one more contact for a certificate you have been chasing? I'll tell you what can be more fun — doing it as a group!

I see more and more youngsters, (anyone under 40) being pressured by society to do more with less time. Look around in any urban setting and you can see the youngster on his/her cellular phone while looking through their day planner and scheduling that next big meeting, or lunch, or something else eating into their valuable "off" time. They fail to see the need to get out and have a little fun! As the ability to communicate almost instantly with each other has progressed, there seems to be a corresponding decline in available "free" time for fun.

Every Amateur Radio operator should be a part of a group, and the group should get back to the basics of having FUN! Get yourself and a friend to go to the next club meeting and remind everyone there that you're looking for something fun to do. If everyone did just that, membership numbers in clubs would take a dramatic upswing, and you just might surprise yourself by meeting someone looking for the same thing. Sure, clubs are supposed to be structured, but sometimes the leaders of the club get lost in the system and forget the basic idea. This is supposed to be FUN!

In the Old-Time Radio column for the July issue, I mentioned receiving a pack-

age from Lifetime subscriber Don Bremer, KB6LO. Included in the pile of material was a coveted Wouff Hong, circa 1938. I casually mentioned the idea of holding it for ransom, hoping the ARRL would offer a bribe with several zeros in the figure. Well, some readers took me seriously. I received a couple of letters telling me I had NO RIGHT to offer this symbol of Amateur Radio to the ARRL. You are absolutely right. This piece of history was sent to us for display in the *Worldradio* museum — and there it will stay. Besides, I haven't heard a word from the ARRL, let alone the offer of a big bribe. (I'm just kidding, folks!) I never intended to part with something so important to us all!

For some time, I've wondered what *Worldradio* could do for Amateur Radio operators to show our appreciation for your being something special to the hobby. We have decided to award a certificate to one amateur per month. Each certificate will be numbered and will be awarded to the amateur whom we feel brings the spirit of Amateur Radio alive. This could be someone contributing a lifetime of knowledge about the secrets of Amateur Radio. Or it could be someone who accomplished something special. An example would be the one person in your club who took the bull by the horns, and organized that impossible Field Day, or public service event, or even a VE session. There are lots of deserving people that aren't ever going to be recognized by the folks in Newton or Hicksville.

What lead us to this? When is the last time you have heard about your average Joe/Jane being selected for recognition by a national publication? Sure, the ARRL does give out some awards, but usually in specific categories with specific criteria. We feel it's time to recognize the individual whom we feel deserves it.

In almost every case, the recipient will be chosen from one of the hundreds of club newsletters I read every month. If you know of someone who you feel really deserves recognition, send me their name and your input about why they should be recognized. I also want the name, address and phone number of the person who you would like to see make the presentation on our behalf. We're not limiting this to Amateur Radio operators. It could be someone who really stuck his/her neck out to get your club that generator or trailer for your club's emergency communications. It could be the Boy or Girl Scout official who has introduced your club to a troop interested in communications. There are no rules for this certificate. This certificate should be for the comman man/woman. We just want to do this — because. — *WF6O*

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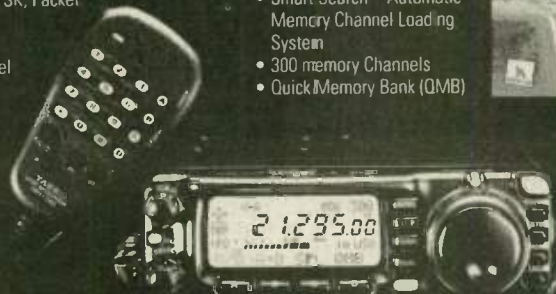
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Paul Zell, W7JYV, the last commercial CW watchstander in North America, copies the last message. He's surrounded by members of the press gathered for this solemn occasion.

The last message

Rick McCusker, WF60

In a ceremony held 12 July, Globe Wireless, operator of KFS, KPH, WCC and WNU pulled the plug on the last transmitters capable of Morse code communications with high-seas ships in North America. These stations join a long, long list of familiar calls going silent forever, or switching to more "modern" methods of communication.

The ceremony was billed by Globe Wireless as the "Dawn of a New Era." Unfortunately, many present at the "festivities" didn't see it that way. There were many former CW operators sprinkled throughout the small crowd. Each of them had a knot in his throat as the last message was sent between KFS and the *SS Jeremiah O'Brien*, a WWII Liberty ship now pre-

served as a living memorial to merchant seamen and veterans in San Francisco.

At the key for the final message was Paul Zell, a professional CW operator for 37 years. He is also an Amateur Radio operator with the call sign W7JYV. Decked out in the traditional green visor, Paul easily copied the message from the *Jeremiah O'Brien*, putting on a display of a dying art for the members of the press in attendance for the occasion. After the final message had been received and acknowledged, a shaky hand reached up and turned the power off for the 500 kHz and HF receivers. Paul was asked how he felt about the end of CW operations. He said, "CW was my life."

Company officials led a round of applause at the end of the message traffic. Several former maritime CW operators thought there should have been a moment of silence for all of those who lived because the radio operator stayed at his key until it was too late to escape the sinking vessel.

Morse operations took on a more uni-

form and regulated operation after the sinking of the *Titanic* on 14-15 April 1912. Until that time, radio officers were pretty much on their own, and operated with very few rules to guide them. After the *Titanic* disaster, international regulations were drawn up and adopted to enhance safety at sea. CW was used for primary communications until after WWII, when military innovations in communications began to find their way into the maritime community. Morse began a serious decline in the 1980s after modern satellite equipment installations began on merchant and passenger vessels. After the decline started, it was just a matter of time until the end came.

The decision to cease Morse code operations was brought about by the implementation of regulations mandating that all vessels over 300 tons had to be online with GMDSS (Global Marine Distress and Safety System) as of 01 February 1999. This rule applies to the entire world. KFS maintained a watch on 500 kHz, and the 4 and 8 MHz bands until it became economically impossible to keep the transmitters in operation. During recent months, traffic counts would be as little as five messages passed using Morse, with a recent peak of 22 messages handled in a week. The revenue from the traffic was just a fraction of what it cost to keep the transmitters powered up. So, it was just a matter of time.

How many Amateur Radio operators served as CW radio operators in the Maritime or Military services? The exact number will never be known, but there are literally thousands of us still active using Morse code. Are you among those of us familiar with the calls of KOK, KLB, KHK, WKR/WKQ, WOE, WLO, WSL and WPD? And there were the Coast Guard stations on 500 kHz with call signs of NMW, NMQ, NMG, NMF, NMR, and NMY. All of these stations are gone.

What led to their demise? As technology advanced, remote control of stations became possible, it became common for an operator in Half Moon Bay, CA, to control and operate a station on the Gulf or East coast. As more ships became active on satellites, radio officers were sent out to pasture. And as the message count on CW started to decline at the shore stations, owners of these stations converted them to more modern modes of communications, or just closed the door.

It's now possible to send an e-mail message to a ship at sea, and have it delivered within one minute. The future has arrived for high-seas communications. And with the arrival of the future, the

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sounds of CW flying around on 500 kHz is now a thing of the past.

These are the final messages passed on 500 kHz and HF:

CQ CQ DE WCC/WNU WCC/WNU QSS QSW 4310 6376 12826.5 16972 17117.6 KHZ BT

CQ CQ DE WCC WCC BT

IN 1901, CALLSIGN WCC WAS ASSIGNED TO THE SOUTH WELLFLEET MASSACHUSETTS WIRELESS TELEGRAPH FACILITY OPERATED BY GUILERMO MARCONI. MORSE CODE SIGNALS FROM WCC HAVE BEEN HEARD AROUND THE WORLD EVER SINCE. TODAY WE RETIRE WCC FROM WIRELESS TELEGRAPH OPERATIONS. WCC WILL CONTINUE TO SERVE THE MARITIME COMMUNITY IN ASSOCIATION WITH THE GLOBAL RADIO NETWORK OPERATED BY GLOBE WIRELESS

BT
AR DE WCC WCC WCC VA
CQ CQ DE WNU WNU
BT

12/2347 UTC JUL 99

PEARL RIVER RADIO/WNU NOW CEASES RADIOTELEGRAPH SERVICE AFTER EIGHTY-SEVEN YEARS OF CONTINUOUS OPERATION. WE WILL CONTINUE TO SERVE THE MARINER THROUGH OUR ELECTRONIC MAIL SERVICE AS PART OF THE GLOBE WIRELESS NETWORK. AR 73 DE WNU
CL

CQ CQ DE KPH KPH KPH
BT

WE NOW CLOSE THE RADIOTELEGRAPH OPERATION OF STATION KPH. SINCE 1904, STATION KPH HAS DISTINGUISHED ITSELF AS ONE OF THE MOST WELL KNOWN AND RESPECTED CALL SIGNS OF THE WORLD, AND WILL CONTINUE TO DO SO AS PART OF THE GLOBAL RADIO NETWORK OF HF STATIONS

BT
NW CL DE KPH SK

This was the final CW message received by KFS from the SS Jeremiah O'Brien:
HRMSG FM SS JEREMIAH OBRIEN/



Modern maritime traffic is now handled by computers sending automated e-mail messages by satellite and data modes.

KXHC CK 95/90
12 2305UTC QRC KFS 001
PRESIDENT WILLIAM J CLINTON
1600 PENNSYLVANIA AV WASHINGTON DC

BT
DEAR PRESIDENT CLINTON STOP HISTORY IS MADE ON THIS DAY AS WE EMBARK ON A NEW ERA OF MARITIME COMMUNICATION STOP THIS OCCASION MARKS THE CLOSURE OF SHIP-TO-SHORE RADIOTELEGRAPH OPERATIONS FROM THE LAST FOUR COMMERCIAL COASTAL STATIONS IN NORTH AMERICA STILL USING THIS TIME HONORED MEDIUM ON JULY 13 AT 0000UTC STOP PLEASE ACCEPT THIS FINAL RADIOTELEGRAPH MESSAGE FROM THE LIBERTY SHIP SS JEREMIAH OBRIEN IN SAN FRANCISCO AS A TOKEN OF THIS HISTORIC EVENT STOP BEST REGARDS
BT

SS JEREMIAH OBRIEN/KXCH
AR NIL

And this is the final message transmitted by a commercial maritime station in North America;

CQ DE KFS
BT

THIS IS THE FINAL CW TRANSMISSION FROM STATION KFS — THE LAST COMMERCIAL RADIOTELEGRAPH STATION IN NORTH AMERICA. APPROPRIATELY, WE CLOSE CW AND EMBARK ON A NEW ERA OF COMMUNICATION WITH SAMUEL F.B. MORSE'S WORDS OF 155 YEARS AGO.

BT
NW CL 73

BT
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BT
DE KFS VA

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Quo vadis, FCC?

There is a good reason why Washington, D.C. used to be virtually abandoned by all sane humans (even bureaucrats and politicians) during the months of July and August in the days before air conditioning became commonplace. In the 1950s, escaping from the oppressive heat and clinging humidity meant that you worked in the Pentagon or spent the afternoon in a movie house that advertised chilled air along with the fresh buttered popcorn. Very little happened in D.C. during the summer in those days, and the Dog Days Malaise is still evident, despite the roar of air conditioning compressors that rivals the rumble of automobile engines caught in rush hour traffic.

So writing in July about a government action that is overdue, but not yet reality is a pretty safe bet, even though this column won't see your mailbox until August. Like other Amateur Radio writers, I had hoped to fill at least one column with commentary on the "recently adopted" restructuring of amateur licensing, based on the FCC's action on docket number 98-143. By the way, the "98" part of the docket number is the year when the ball started rolling, so there has been a lot of time for both discussion and action. In the interim, the positions of the FCC, the ARRL, and others have changed or been clarified several times. The electronic database of comments filed with the FCC now has over 2100 entries, from terse paragraphs to lengthy treatises. There seems to be very little left to say on the matter except, perhaps, to ask (in lawyerly Latin), Quo vadis, FCC? Where do we go now? The American Amateur Radio community dwindles and waits.

Like every other Amateur Radio columnist or writer of letters to the editor, I know that restructuring is a natural topic

and, in the case of a "rules and regs" column, probably mandatory. No doubt, a column explaining the nuances of regulatory reform will be written in the future, after the FCC issues an order memorializing its decision. But until now, the major focus of the discussion on changing the face of Amateur Radio has been "wither the Morse code," and I must admit to a lingering lack of inspiration on the topic. I guess I could toss my two cents worth in the hopper but, like the single paragraph comment buried in the FCC's Electronic Comment Filing System, it would suffer a fate worse than banality in the opinion-poll crazed 1990s — it would be statistically insignificant.

I learned the Morse code as a Boy Scout, long before the Christmas when Santa delivered a grey Hallicrafters multi-band short wave radio that brought the world, and Ham radio, into my small bedroom. It was flags and flashlights and signal mirrors, but the long and short of it was that I had found a new language spoken only by an inner circle. Then, when I heard it on the short wave receiver, and realized that I understood real words

where others heard only high pitched noise, it was like being able to communicate in electronic Esperanto. I was special. I knew Morse code.

It also gave me something else very special — a real common point of interest with my Dad. During WWII, my father had been the radio operator on a B-17 Flying Fortress named the *Red Gremlin* operating out of England and North Africa. That meant he could send and receive Morse code at a pretty good clip, and I marveled at his ability to discern conversation where my ears and staggering pencil still heard only the mutterings of gerbils. One of the missions he had flown in the *Red Gremlin* was a secret flight delivering General Dwight Eisenhower to North Africa at the time of the invasion. More than once as I listened to the faint dots and dashes coming through the headphones on the Hallicrafters, I imagined Dad tapping out the pre-arranged code word for "mission accomplished" on the J-38 straight key in the tiny room behind the bomb bay as the B-17 arced in over the Mediterranean on its final approach. When I got my Novice license, one of my first acquisi-

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 08 July 1999.

For more information about the sequential call sign system, see Fact Sheet PR5000 #206-S dated August 1996, or contact the Federal Communications Commission, Consumer Assistance Branch, 1270 Fairfield Road, Gettysburg, PA 17325-7245, toll-free 1-888/225-5322.

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØIW	KIØQN	++	KCØGEF
1	AA1UM	KE1LO	++	KB1EGD
2	AB2GI	KG2QW	++	KC2FID
3	AA3SO	KF3DI	++	KB3EAO
4	AF4PD	KV4BE	++	KG4DYE
5	AC5SX	KM5VL	++	KD5HQS
6	AD6IW	KR6BW	++	KF6WZP
7	AC7BF	KK7TR	++	KD7GBF
8	AB8EJ	KI8IY	++	KC8MUO
9	AA9XE	KG9QA	++	KB9UYX
N Mariana Is	NHØP	AHØBC	KHØIA	WHØABM
Guam	++	AH2DK	KH2UG	WH2AOA
Hawaii	WH7B	AH6PU	KH7UO	WH6DFZ
American Samoa	AH8R	AH8AH	KH8DO	WH8ABI
Alaska	ALØN	AL7RM	KLØTO	WL7CVC
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Rules & Regs

tions for the new Ham shack was a WWII surplus J-38 straight key that I used to make my first contact as an amateur on 40-meter CW and continued using until a few years ago when it finally just wore out. I enjoy the Bencher paddle, and it is a lot faster than the aged surplus key, but I find myself wishing I had another J-38 — especially for mobile work.

I still enjoy operating CW, especially in contests or for the occasional QRP ragchew, and I prefer to listen to it as if it were another language, hearing the thoughts rather than writing down groups of letters and watching the words emerge. But I have a hard time believing that the memories of my introduction to Morse code and the present-day pleasure I get from using it can be passed on to a new generation of Hams by making it a rite of passage. Other than its use as an artificial screening test, like the bar exam for lawyers, the practical usefulness of Morse code no longer rises to the level of necessity that still existed in the days before single sideband, satellite communications, and cellular phones. It is still useful, and a whole lot of fun, but it is no longer really necessary. At the same time, it is so much a part of Amateur Radio that maintaining a 5 wpm code test hardly seems either unreasonable or burdensome, even if only for historical purposes.

I find it easy to argue either side in the Code/No Code debate. Like any other lawyer who delights in courtroom contempes, or a well-schooled member of the high school debate team, I can expound either side with alacrity and at length. But, if I am honest about my own feelings, I truly do not care one way or the other

about the final decision that comes out of the FCC about the code requirement. At the same time I do care about the Morse code and its preservation not only as a mode of electronic transmission but, more importantly, as a language — as a way to communicate real thoughts and ideas when the atmosphere is filled with SSB-absorbing proton hash and the static roars like a rocky coast at high tide.

I have noticed that the anti-code side of the debate is generally more grounded in statistics and factual references, as though the need for the elimination of the Morse code requirement could be proven by numbers and Boolean strings of logic that lead all sane humans to inescapable conclusions. On the other side, the supporters of the code requirement offer the compelling proof of true stories and anecdotes, as well as the combined wisdom of centuries of Ham-hours on the HF bands. It is no coincidence that among the strongest supporters of keeping the code requirements are my fellow members of the Quarter Century Wireless Association. If the debate were a civil rights controversy, the Grey Panthers would rally around the code. The Morse code is a major part of the history of Amateur Radio and the heritage we all share in our hobby.

Maybe that is the connection I have been searching for in my thoughts about the Code/No Code discussion. There may be no real present-day connection between Morse code and the skills needed to be an Amateur Radio operator on the HF part

of the spectrum. But there is certainly a connection to the vast majority of Hams who are currently plying the ether below 30 MHz. There is a feeling among many (but, of course, not all) of the General class and higher Hams that you need to know the Morse code to “fit in” and be a “real ham.”

What the FCC decides about the future of the code as a license requirement really doesn't matter to me at all. In the years to come, it may fade away from the HF bands altogether, like the old soldiers who defend it so strongly today. But I don't think so. In fact, I entertain the belief that elimination of the higher speed Morse code requirement will actually lead to more use of it on the HF bands.

The logic or truth of that feeling is irrelevant. It is one of those thoughts that resides in that remote part of the brain that sits low in the stomach — a real, visceral, eat-away-at-your gut feeling. It is not necessarily or by necessity a rational conclusion, reached after sorting evidence and examining facts. It is more the product of a kind of soul searching. Using the code is like visiting the place where explorers look for the trickle of headwaters. There is a feeling of being close to the source. So the rules and regs don't really matter. The Morse code will be used by Hams because it's a good language for communicating and for a host of other practical reasons. But it will also survive because it's entwined in the spirit of Amateur Radio.

FCC rescinds license modification

The FCC has rescinded a two year license modification that it issued to David Castle, WA9KJI. On 19 May, the FCC's Riley Hollingsworth said the FCC had information that David O. Castle, WA9KJI, had engaged in broadcasting and talking to no particular station for over an hour. During that time, Hollingsworth claimed that this type of operation by Castle prevented the use of

the frequencies by others and maliciously interfered with other stations.

Hollingsworth's letter even had said that Castle had falsely claimed to be in contact with another station. As a result of the alleged violations, Castle's privileges below 30 MHz were suspended.

After reviewing Castle's response, the FCC now has concluded that Castle was not at fault on the evening of 01 May 1999. In fact, the FCC now says that Castle's transmissions were interfered with by another Amateur Radio operator attempting to call the Liberty Net into session. Castle's reply to the modification notice included a tape recording of the relevant time period. Hollingsworth said the FCC also reviewed other information, including a sworn affidavit, furnished by other amateurs who were in contact with Castle at the time of the alleged violations.

The FCC says Castle is far from being off the hook. Hollingsworth's letter reminds WA9KJI of numerous allegations of malicious interference received by the FCC. Hollingsworth says that his agency will continue to review the alleged past incidents of interference and any future ones that may occur. — FCC, *Newsline*



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A neighborly Field Day

By Dave Bell, W6AQ

Field Day is a wonderful opportunity for camaraderie, cooperation, contesting, and some good public relations. In fact, a principle purpose of Field Day is for hams to demonstrate their emergency preparedness to the general public. Maybe that's why so many Field Days are conducted out in the middle of some bug infested, swampy field or up on top of a ridge only a mountain goat or helicopter can comfortably get to.

I belong to the Southern California DX Club and the Southern California Contest Club, two specifically focused groups, as their names indicate. They are what my friend Don, W6EEN, calls "marching and chowder societies." Each organization has its focus fixed firmly on a single goal. Please don't fiddle with their focus. Neither of these organizations has mounted a Field Day in recent memory.

So it was a little over a year ago, just prior to Field Day 1998, that I decided I would mount a solitary Field Day effort on my front patio and put a sign in front of the house inviting my neighbors to venture back to the patio for a demonstration of Ham radio emergency preparedness. I had just bought an FT-847 and while fiddling around with it discovered it would run as little as one watt. I had been planning on putting together a solar power setup for years, so why not take advantage of the multiplier which comes with "natural" power and the further multiplier which comes from QRP?

In my professional life as a television and film producer, I have to plan ahead months and years. In my personal life, as a consequence, planning ahead has somehow become something of an anathema. So, as Field Day '98 loomed, I found myself with plans to run a solar powered station without any solar power. As it happened, the TRW Swap Meet, one of the world's largest and finest monthly gatherings of thieves and scavengers, fell on the Saturday morning of Field Day.

So here's the plan: I get up early, dash down to TRW, pick up a battery, a solar panel and regulator, hook it all up and be on the air by eleven a.m. Noon at the latest.

So I get to TRW, maybe an hour or two after I expected to, buy a huge nicad battery that ran some kind of a medical machine in its glory days and load the thing into the back of my Jeep without giving myself much of a hernia.

But the solar panel guy, who has never missed a TRW, is not there. As I am about to start searching for any kind of a panel anywhere, Mr. Sun appears. I get my solar panel, stop off at the wire guy and discover how much #8 copper wire costs these



Several neighbors stopped by my Field Day station on the front patio to learn about Amateur Radio and emergency preparedness.

days (ouch).

Then it's back to the house, set up the rig, and get into Field Day.

Well, needless to say, poorly planned events are destined not to go as planned. One of the cells in my ten ton battery turned out to be dead. Of course, it took me a couple of hours to figure that out. I thought the thing just wasn't charging very fast. So now what? Start up one of my generators? Naw. Too noisy. Besides, I want natural power.

So the question is which car do I take the battery out of mine or my wife's? Is my wife going anywhere this weekend? Not unless I take the battery out of her car, is the answer to that. So I laboriously lift the battery out of my car, discovering in the process several years of strange white stuff that has accumulated around the terminals. Of course, none of the terminals I bought for the nicad battery fit the car battery so it's down to the auto parts store for some connectors. By now it's mid-afternoon on the first day of Field

Day and my efforts to achieve some natural power begin to pay off just as the sun sets. This natural power stuff is exhausting.

Tomorrow is another day. But as far as Field Day is concerned, only a half day. So the next morning, bright and early, I'm back out on my patio ready to demonstrate Ham radio for all of the passers-by.

Several people out for their morning constitutional see the sign in front of my house, looked up the long walk to the front patio, see me there waving at them, wave back and move on. Only one person wandered back to ask me what I was doing. Around noon, the Field Day stations all

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over the U.S. and Canada began to fold up their tents and here I was, just getting started. I vowed that next year would be different.

In the year between Field Day '98 and '99, I managed to replace the bad battery cell, and make a firm commitment that '99 would not be a repeat of '98. Maybe I would actually plan ahead a teeny bit.

First of all, I wasn't going to set up on the patio, but right in front of the house, where I could strongarm people as they strolled by on their morning constitutional.

But as I was setting up, a wave of doubt washed over me. Was this really a good idea? How would my neighbors, most of whom I didn't know, respond? Had they always been waiting for an opportunity to criticize my antenna farm? Had they been waiting for exactly the right opportunity to complain about the bars on their TV, the hum in their audio system, strange rumblings out of their home alarm system? Did their garage door open at odd hours? Was their cat acting strangely? Was this going to be a can of worms?

As far as I know, unlike some neighbors you read about in Ham lawsuit articles, none of my neighbors had stepped out of the pages of a Stephen King novel. On the other hand, how well did I know them? Not very.

But this had been too much work to get cold feet now. Full speed ahead and damn the torpedoes.

After all, when I got home from work Friday night, I distributed flyers to forty of my closest neighbors inviting them to stop by and see a real live Amateur Radio demo. If I wasn't there, what kind of a message would that send? It's the same way I quit smoking. When I decided to do it, I announced to everyone that I was going to do it on a certain date. I intimidated myself into quitting smoking. And I had intimidated myself into a Field Day for the neighbors.

Besides, I'd printed up twenty copies of the ARRL's "Backgrounder: What is Amateur Radio?" to give to the curious, along with my QSL card.

On Saturday, the thing I discovered

about my neighborhood is that most of the walkers are back home by eleven a.m. when the so-called "operating event" starts. Only three of four people walked by my feverish contesting between noon and three p.m., the hours advertised on my flyer. Lots of people drove by, and waved, and of the three pedestrians, two stopped to chat and one signed my guest register and took away my printed material.

At four I packed it up, took all the stuff back down to my shack, re-hooked it all, and operated a few hours in the familiar surroundings.

At a reasonable hour I went to bed, knowing that tomorrow would be better. And indeed it turned out to be.

I was up at six, hauling everything out to the front of the house again, setting up again, getting everything ready to go. I gave myself an hour to get all set up and it only took an hour-and-a-half. That's not bad.

The first people to walk by stopped at the curious sight. Why is this old bozo sitting in front of his house? I waved them over as I was attempting to finish a CW/QSO, and I discovered a little known fact. I can't talk to neighbors and carry on a CW/QSO at the same time. I know there are some people who can, but I am not one of them. So the neighbors took precedence. They hung around and chatted for 15 minutes about Ham radio, the neighborhood, the Internet, and bunch of other stuff. I was beginning to get fidgety. They finally left, taking The Backgrounder and my QSL card and thanking me for the information.

Just a few QSOs later one of my near neighbors strolled up, apologized for not coming over yesterday, apologized for his wife not accompanying him and in general chatting away like we were old pals. Fifteen minutes later he, too, took away the ARRL Backgrounder and my QSL card, and it was back to the bands.

And so it went. All morning long, people walking by, some waving, some stopping for a moment, some chatting away for a half and hour or more. One dog tried to water my leg, but his owner was used to his antics and gave him a jerk that would have caused panic at the SPCA.

One old boy came up and starting talking about the television interference he had. My heart sank. Then I realized that

he was talking about interference he'd had in the late forties from the "other Ham who lived in this house." I never knew that another Ham had occupied my house years before. While his TVI problem was forty years old, it remained an indelible memory for him. He told me he didn't watch much TV anyway, even then. He inspected my battery, glanced at my antennas, observed that lucky for me most of my neighbors don't walk around with their heads pointed skyward, took my literature and continued on his way.

In the eight or nine hours I sat in front of my house operating, over a dozen neighbors stopped by and took away the literature, chatted, and basically gave me an excuse not to have a particularly good score. It seems to me that chatting with neighbors ought to be worth at least fifty points. Maybe a hundred.

Sunday afternoon, long after I had carted my patio table back to my patio and returned all of the equipment to the shack, two other neighbors showed up. One was a kid who lives right across the street who said he was interested in Ham radio. He was too late for the demonstration, but I gave him The Backgrounder and my QSL card and told him I'd invite him over for a real demonstration sometime soon. I told him about Kid's Day, which got his attention. His mother told me later that "Ryan is very curious." That's a good start.

At the end of the day, as I was putting around my garage, another neighbor stuck his head in the door wondering if Field Day was over? He, too, had gotten the flyer, but was just back from out of town, was curious about Ham radio, so he thought he'd come by and say hello. He really wanted to tell me that I occasionally set off his home alarm system and wondered what he could do about it. I told him to do the same thing I did with mine, which I also set off with some regularity. "Turn it off." "Oh, good idea," he said. I explained to him that home alarm systems were like huge antennas, picking up nearby radio signals and now and then mistaking the radio signal for a burglar or fire, or Lord-knows-what. He certainly understood that, or said he did, and it wasn't really a problem anyway, now that he knew that he could just turn it off anytime he wanted to.

As he ambled down the hill, I thought to myself if that's as bad as it gets, that ain't bad. Next year I'll probably do it again. With more flyers. And maybe get out and operate before the contest starts Saturday morning, to catch those Saturday morning strollers. So when I pause to chat with them I won't be losing points.

I think the ARRL should add a new category to Field Day — Category F, *Front Yard*. What do you think?

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Future of Ham radio in China secured

Martti Laine, OH2BH

Two Finnish amateurs, Martti Laine, OH2BH, and Pertti Simovaara, OH2PM have been working in Beijing, China, for quite some time. They have been keeping their call signs, XX9X, XX9TRR and XX9TZ active and providing BY contacts for amateurs all over the world.

The CQ World Wide DX contest in 1998 saw another major breakthrough when B1A and B1Z hit the airwaves from downtown Beijing. It was a BY fiesta with B1A making 9,000 QSOs and introducing Chinese amateurs to the art of competitive Amateur Radio operation during this historic weekend.

But that wasn't the end of it. A sponsorship agreement was signed with the Chayong District (Beijing) Youth Activity Center on 18 April 1999 and a permanent Nokia corporate radio club was established. The station BY1DX went on the air and has been very active ever since. As of June 1999, the station had passed the 10,000 QSO mark. This included OH2BH's operation in the CQ WPX SSB contest and OH2PM's operation in the CQ WPX CW contest.

Another historic event was marked by 03 July 1999 when an Amateur Radio training course organized at BY1DX was completed. Fifteen new operators were



Above: Ms. Wang, Vice Director and Pertti Simonavaara, OH2PM, busy assisting the Chinese youth at BY1DX.

Below: The opening of Beijing — Chaoyang — Nokia ARC was another historic event. It was even broadcast live on Beijing TV educational channel.



trained, focusing on the operating and international aspects of the hobby so more BY contacts can be provided. Many of the newly licensed amateurs have hit the bands at BY1DX while preparing their own stations.

Overall, there are 131 BA stations active in China (500W license), plus another 368 BD stations (100W license, while 1,574 BG stations are running 3 watts and

using all bands except 20 Meters and the WARC bands. The BY prefix is dedicated to club stations only, and there are currently 105 clubs throughout the country.

BY1DX QSLs are processed at the OH2BH Finland CBA address.

(Ed. Martti Laine, OH2BH, has traveled the world activating new DX locations. It's no surprise that he's even activated North Korea. Let's hear your story. Send it in!)

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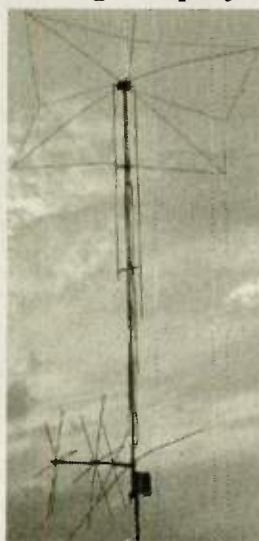
It's easy to tune because adjusting one band has minimum effect on the resonant frequencies of other bands.

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MFJ-1798

\$269⁹⁵

Ship Code F

beyond it. *In phase* antenna current flows in all parallel radiators.

This forms a very large equivalent radiator and gives you incredible bandwidths.

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On 30, 40, 75/80 Meters, end loading -- the most efficient form of loading -- gives you highly efficient performance, excellent bandwidth, low angle radiation and automatic bandswitching.

MFJ's unique *Frequency Adaptive L-Network™* provides automatic impedance matching for lowest SWR on these low bands.

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You don't need a ground or radials because an effective counterpoise that's 12 feet across gives you *excellent* ground isolation.

You can mount it from ground level to roof top and get awesome performance.

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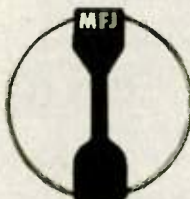
The feedline is decoupled and isolated from the antenna with MFJ's exclusive *AirCore™* high power current balun. It's wound with *Teflon®* coax and can't saturate, no matter how high your power.

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Enjoy both DX and local

contacts mounted vertically. Get both low angle radiation for excellent DX and high angle radiation for local, close-in contacts. Handles 150 watts.

Super easy-to-use! Only MFJ's super remote control has *Auto Band Selection™*. It auto-tunes to desired band, then beeps to let you know. No control cable is needed.

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

All welded construction, no mechanical joints, welded butterfly capacitor with no rotating contacts, large 1.050 inch diameter round radiator -- not a lossy thin flat-strip -- gives you highest possible efficiency.

Each plate in MFJ's tuning capacitor is welded for low loss and polished to prevent high voltage arcing, welded to the radiator, has nylon bearing, anti-backlash mechanism, limit switches, continuous no-step DC motor -- gives smooth precision tuning.

Heavy duty thick ABS plastic housing

has ultraviolet inhibitor protection.

NEW! MFJ-1788, \$429.95. Same as MFJ-1786 but covers 40 Meters-15 Meters continuous. Includes super remote control.

MFJ-1782, \$339.95. Like MFJ-1786 but control has only fast/slow tune buttons.

MFJ-1780, \$249.95. *Box Fan* Portable Loop is about the same size (2x2 foot) as a box fan, complete with handle. Covers 14-30 MHz. Control has fast/slow tunes.

MFJ Portable Antenna

MFJ-1621

\$79⁹⁵

Ship Code A



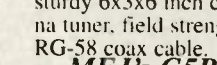
DXCC, WAZ, WAC. WAS has been won with MFJ-1621! Work 40, 30, 20, 17, 15, 12 and 10 Meters with a telescopic whip that extends to 54 inches. Mounted on a sturdy 6x3x6 inch cabinet. Built-in antenna tuner, field strength meter, and 50 feet of RG-58 coax cable. Handles 200 Watts.

MFJ's GSRV Antenna

MFJ-1778

\$34⁹⁵

Ship Code A



Covers all bands, 160-10 Meters with antenna tuner. 102 feet long, shorter than 80 Meter dipole. Use as inverted

vee or sloper to be more compact. Use on 160 Meters as Marconi with tuner and ground. Handles full legal limit power. Add coax feedline and some rope or other nonconductor and you're *on the air!*

MFJ halfwave vertical

6 bands: 40, 20, 15, 10, 6, 2 Meters . . . No radials or ground needed

Only 12 feet high and has a tiny 24 inch footprint! **\$199⁹⁵**

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Efficient end-loading, no lossy traps. Entire length is always radiating. Full size halfwave on 2/6 Meters. High power *air-wound* choke balun eliminates feedline radiation. Adjusting 1 band has minimum effect on others.

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MFJ-1793, \$179.95. Like MFJ-1792 but has full size 20 Meter 1/4 wave also.



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You can match dipoles, verticals, inverted vees, random wires, beams, mobile whips,



MFJ-989C

\$359⁹⁵

shortwave -- nearly any antenna. Use coax, random wire or balanced lines.

You get everything you've ever wanted in a high power, full featured antenna tuner -- widest matching range, lighted Cross-

Needle SWR/Wattmeter, massive transmitting variable capacitors, ceramic antenna switch, built-in dummy load, TrueCurrent™ Balun, scratch-proof Lexan front panel -- all in a sleek compact cabinet (10 1/2"Wx4 1/2"Hx15D in).



MFJ AirCore™ Roller Inductor gives high-Q, low loss, high efficiency and high power handling.

MFJ's exclusive Self-Resonance Killer™ keeps damaging self-resonances away from your operating frequency.

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MFJ will repair or replace your MFJ-989C (at our option) no matter what for one year.

More hams use MFJ tuners than all other tuners in the world!

MFJ-986 Two knob Differential-T™



MFJ-986
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Two knob tuning (differential capacitor and AirCore™ roller inductor) makes tuning foolproof and easier than ever. Gives minimum SWR at only one setting. Handles 3 KW PEP SSB amplifier input power (1.5 KW output). Gear-driven turns counter, lighted peak/average Cross-Needle SWR/Wattmeter, antenna switch, balun. 1.8 to 30 MHz. 10 1/2"Wx4 1/2"Hx15 in.

MFJ-962D compact Tuner for Amps



MFJ-962D
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A few more dollars steps you up to a KW tuner for an amp later. Handles 1.5 KW PEP SSB amplifier input power (800W output). Ideal for Ameritron's AL-811H! AirCore™ roller inductor, gear-driven turns counter, pk/avg lighted Cross-Needle SWR/Wattmeter, antenna switch, balun, Lexan front, 1.8-30MHz. 10 1/2"x4 1/2"x10 1/2" in.

MFJ-969 300W Roller Inductor Tuner



MFJ-969
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Superb AirCore™ Roller Inductor tuning. Covers 6 Meters thru 160 Meters! 300 Watts PEP SSB. Active true peak reading lighted Cross-Needle SWR Wattmeter, QRM-Free PreTune™, antenna switch, dummy load, 4:1 balun, Lexan front panel. 3 1/2"Hx10 1/2"Wx9 1/2"D inches.

MFJ-949E deluxe 300 Watt Tuner



MFJ-949E
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More hams use MFJ-949s than any other antenna tuner in the world! Handles 300 Watts. Full 1.8 to 30 MHz coverage, 48 position Precision48™ inductor, 1000 Volt tuning capacitors, full size peak/average lighted Cross-Needle SWR/Wattmeter, 8 position antenna switch, dummy load, QRM-Free PreTune™, scratch proof Lexan front panel. 3 1/2"Hx10 1/2"Wx7D inches. MFJ-948, \$129.95. Economy version of MFJ-949E, less dummy load, Lexan front panel.

MFJ-941E super value Tuner



MFJ-941E
\$119⁹⁵

The most for your money! Handles 300 Watts PEP, covers 1.8-30 MHz, lighted Cross-Needle SWR/Wattmeter, 8 position antenna switch, 4:1 balun, 1000 volt capacitors, Lexan front panel. Sleek 10 1/2"Wx2 1/2"Hx7D in.

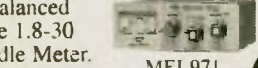
MFJ-945E HF+6 Meter mobile Tuner



MFJ-945E
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MFJ-971 portable/QRP Tuner



MFJ-971
\$99⁹⁵

Tunes coax, balanced lines, random wire 1.8-30 MHz. Cross-Needle Meter. SWR, 30/300 or 6 Watt QRP ranges. Matches popular MFJ transceivers. Tiny 6x6 1/2"x2 1/2" inches.

MFJ-901B smallest Versa Tuner



MFJ-901B
\$79⁹⁵

MFJ's smallest (5x2x6 in.) and most affordable wide range 200 Watt PEP Versa tuner. Covers 1.8 to 30 MHz. Great for matching solid state rigs to linear amps.

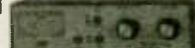
MFJ-16010 random wire Tuner



MFJ-16010
\$49⁹⁵

Operate all bands anywhere with MFJ's reversible L-network. Turns random wire into powerful transmitting antenna. 1.8-30 MHz. 200 Watts PEP. Tiny 2x3x4 in.

MFJ-906/903 6 Meter Tuners



MFJ-906
\$79⁹⁵

MFJ-906 has lighted Cross-Needle SWR/Wattmeter, bypass switch. Handles 100 W FM, 200W SSB. MFJ-903, \$49.95. Like MFJ-906, less SWR/Wattmeter, bypass switch.

MFJ-921/924 VHF/UHF Tuners



MFJ-921 or MFJ-924
\$69⁹⁵

MFJ-921 covers 2 Meters/220 MHz. MFJ-924 covers 440 MHz. SWR/Wattmeter. 8x2 1/2"x3 inches. Simple 2-knob tuning for mobile or base.

MFJ-922 144/440 MHz Tuner



MFJ-922
\$79⁹⁵

Ultra tiny 4x2 1/2"x1 1/2" inch tuner covers VHF 136-175 MHz and UHF 420-460 MHz. SWR/Wattmeter reads 60/150 Watts.

MFJ-931 artificial RF Ground



MFJ-931
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Creates artificial RF ground. Also electrically places a far away RF ground directly at your rig by tuning out reactance of connecting wire. Eliminates RF hot spots, RF feedback, TVI/RFI, weak signals caused by poor RF grounding. MFJ-934, \$169.95. Artificial ground/300 Watt Tuner/Cross-Needle SWR/Wattmeter.

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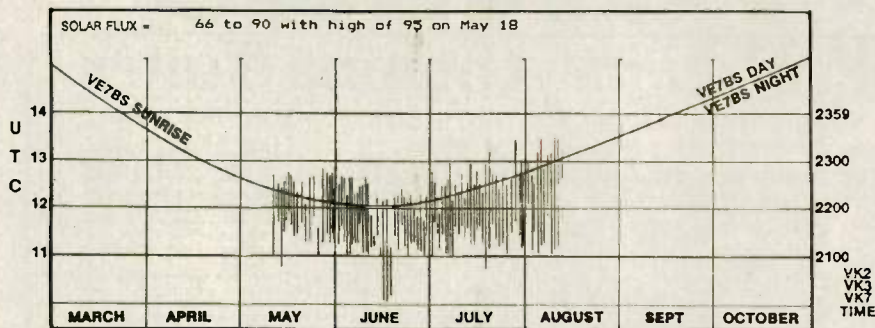
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160 — a band for all seasons



1995 160 METER OPENINGS FROM VE7 TO VK "SUMMER SEASON"

This covers only the period of the SEANCE net on 1032 kHz. Conditions were not so consistent as in most years, but for the third year in a row we had contact every day. It was again apparent that signal levels were high just after a sudden rise in K indices after a period of quiet. The best days were August 9 and 10, with many reports of S9+ both ways and openings lasting two and a half hours.

Bob Eldridge, VE7BS

Many 160-meter operators, especially in the northern hemisphere, think of top-band as useful from September to March. Many of them go further and write off the years when the sunspot count is high.

This may be true of the northern polar paths, like North America to Europe, but it's certainly not true of transequatorial paths like North America to Australia. It's particularly untrue of the path from the West Coast to Australia. It sometimes APPEARS to be true simply because many people just don't think of looking on 160. Maybe the fact that sunrise occurs much earlier has something to do with it. For the true enthusiast it should be an advantage to be able to operate through sunrise and still have time for breakfast and the departure for work.

I live in a mountain valley, with solid rock obstructing the path towards Europe (the 'horizon' about 27° above the horizontal) and towards the Pacific (about 22° 'horizon'). Out beyond the nearby obstructions there are 10,000 ft. ice fields or peaks

in every direction. My own QTH on the valley floor is about 700 ft. elevation. Towards the U.S. and towards JA it's not too bad, as the mountains are respectively 10 and 20 miles away and the horizon therefore lower than the typical 160-meter signal.

So, EVERY signal from the Pacific comes in from a vertical angle of more than 20°, yet almost ten years ago I qualified for the 'Worked All VK Call Areas' on 160 SSB (I prefer CW but the vast majority of VK topband stations are on SSB). Most of the cards I used for DXCC 160 (Australian certificate because I can't bring myself to trust my QSLs to the postal system, and ARRL would not allow local checking for 160 DXCC) are from the Pacific.

I have worked every summer on 160 right through the sunspot cycle and have not been able to see much correlation between SSN and the number of Pacific stations in the log. For me the main season is from mid-May to mid-August, although VK is workable sporadically right through the year.

During the years 1993, '94 and '95, R. B. Crofts, VK4YB, ran the SEANCE net (South East Australia to North America

Communications Exchange) designed specifically as a vehicle to help "first-timers" across the Pacific, and as a formal propagation study. This was a perfect opportunity to check whether or when the path existed, as I could rely on Roger being there every day from mid-May to mid-August. Throughout the SEANCE period in each of those years we had contact every single day, and I maintained a list of VK stations heard and/or worked. Eventually I had close to 400 call signs on it, and the log has thousands of VK contacts (more than a thousand with VK4YB alone). There are lots of ZL, and the occasional 5W, FK8, A35, 9M8, P29, V63, V73, H44 etc., but I was not so conscientious about putting them on "the list."

Generally speaking, the band was open between VE7 and VK from about 1100Z (at which time VK4YB called his first CQ) until some time after my sunrise. 1994 was outstanding in that almost every day the opening extended past sunrise, very often for 45 minutes and occasionally for a full hour. These were not marginal conditions. Most of the time we could chat about this, that, and the other, not just exchange reports.

Steve Gecewicz, KØCS, once remarked in *Low Band Monitor* that it sounded to him like "another kaffee klatch" or words to that effect. We did indeed often have long discussions about antenna arrangements and vertical take-off angles.

Solar flux numbers

Through the summer of 1993 the solar flux reported by WWV ran between 85 and 135, through the summer of 1994 it varied between 65 and 95, through the summer of 1995 between about 66 and 81 with one brief surge to 95 on 18 May. In those days I kept a fairly good running record of solar flux reports, but have since come to the conclusion that for 160 it doesn't matter.

For the Pacific path, nor does the K or A index, with a couple of exceptions. A sudden rise in the K often means a short period of enhanced propagation. A very high K often means the band goes dead, but by no means always.

Join us

A small band of dedicated West Coasters are well aware of the daily activity from May through August on 160 at sunrise. Many more could have a pleasant surprise at finding S9+ signals from down under somewhere around 1840 kHz or so if only they would remember to take a look. But you have to be prepared to get up early.

I don't know what has happened to VK4YB. These days R. W. Briggs, VK3ZL, is the "old reliable" — there most days and always prepared to stand by for a breaking DX call.

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Why low gain antennas work so well at the lower HF frequencies

Paul E. Schmit, W4HET

The purpose of this brief article is to point out why simple low gain transmit/receive antennas on the 40, 80 and 160-meter "Ham bands" work so well when compared to low gain transmit/receive antennas at the higher frequencies. This should be encouraging to those "Hams" who just don't have the real estate to put together elaborate low band HF antenna arrays.

While the theory discussed in the following is "old hat" the resulting context may be new to some.

Just to arouse interest, it can be stated that a dipole-to-dipole free space link at 160 Meters is theoretically 24 dB better than a corresponding free space dipole-to-dipole link at 10 Meters (ref 1). Also for the record, the theoretical free space gain of a half-wave dipole is 2.1 dB over isotropic radiation. Isotropic radiation is a theoretical reference which assumes equal radiation in all directions.

It can be shown that the theoretical free space gain of a very short (short relative to a wavelength) dipole is 1.8 dB independent of physical length (ref 2). This surprising result might suggest that a metal coat hanger could be used as an antenna on 160 Meters. However, as usual, nature doesn't give away something for nothing. As antenna length is shortened without limit, the resistive component of the antenna input decreases to unuseful values. In this case, primarily because of ohmic losses, no practical antenna matching scheme is able to match the antenna to a transmission line. However, antennas as electrically short as 1/30th of a wavelength can be matched and are used quite effectively on the lower HF Ham bands.

So far, the myriad of HF skywave link parameters (in addition to antenna gain and operating wavelength) between transmitter and receiver haven't been mentioned. These other parameters include power levels, antenna heights, maximum usable frequencies, path loss, ground losses, D-layer ionospheric absorption, background noise — receiver bandwidth, polarization losses and so on.

It turns out, however, if the discussion is confined to an established link at 40 Meters, these other link parameters are not germane to a review of low HF band capture area.

All this mysterious talk can be quickly summarized by just one simple equation which describes the capture area of an antenna as a function of gain and wavelength. Once radio waves arrive at the receiving location, they can be specified in terms of "power density" expressed in

watts per square meter of space. The receive antenna has a "capture area" which can be calculated in square meters. The product of this "capture area" and the incoming "power density" is the maximum available received power.

$CAPTURE\ AREA = (Receive\ Gain) (Wavelength)^2 / 4\pi\ (meters^2)$

Here π is the usual 3.14159.....

This result states that the capture area of an antenna with a fixed gain such as associated with a dipole increases as the square of the wavelength (ref 2). Lower frequencies (longer wavelengths) result in increased capture area. This also applies to HF mobile applications where electrically short monopoles are worked against ground in conjunction with frequency dependent loading coils.

Under matched conditions, the intercepted power when multiplied by the antenna efficiency (70% or less) and reduced by the matching network loss is essentially the receiver input power. A resonant (half-wave) dipole is the preferred low gain option since this minimizes matching losses. However, electrically short antennas using both inductive and capacitive loading often perform much better than might be reasonably expected.

For example, when I got on the air over 50 years ago, the QTH had real estate so small the lawn was cut using a pair of scissors. Nevertheless, the 6L6 Xtal oscillator did quite well on 40 and 80 Meters with antennas that included metal clotheslines, metal fences, bed springs and miscellaneous short lengths of wire and pipe. Such "haywire" antennas were adequate to achieve WAS in 1948, at a time when there were only 48 states!

This also suggests why, while on a recent stay in Florida, I used a four-foot whip on 40 Meters in conjunction with a Ten-Tec Scout 555 (50 Watts) and was able to communicate with Europe, South America, Central America, and throughout the states. In this case, the antenna on 40 Meters had an electrical length of 0.03 wavelengths.

The bottom line is that a half-wave dipole or an electrically short antenna at the

lower HF bands will in general have a much greater capture area than such low gain antennas at the higher HF bands. So apartment dwellers and those constrained to electrically short 160-meter antennas take heart. You don't need a yagi, quad or rhombic on 40, 80 or 160 Meters to assure consistent and solid QSOs. Since reciprocity in propagation usually holds, a well matched resonant dipole or electrically short antenna on these low HF bands is usually quite adequate!

References:

(1) Griis, H.T. A note on simple transmission Formula. Proc. IRE 1946, 46, 254-256.

(2) Federal telephone and radio corporation, reference data for radio engineers 3rd edition, 1949, 390-392.

New and improved FCC Web site

The FCC's Web site has a completely new look to go along with its move to The Portals. The new site, still at <http://www.fcc.gov>, features an image of the FCC's new home and logo and contains more graphics. Current news "headlines" are in a highlighted box that runs down the middle of the home page, while the lefthand part of the screen is devoted mainly to comments (a video clip also is available) by FCC Chairman William Kennard. The righthand side of the screen focuses on "major initiatives," such as the V-chip, area codes, "parents, kids, and communications," and other hot topics. Clicking on the associated image or headline takes you to a page on the subject. Unchanged (so far at least) is the FCC's Amateur Radio page at <http://www.fcc.gov/wtb/amateur/>. Comments and suggestions on the updated site go to Sheryl Segal, ssegal@fcc.gov. — ARRL Letter

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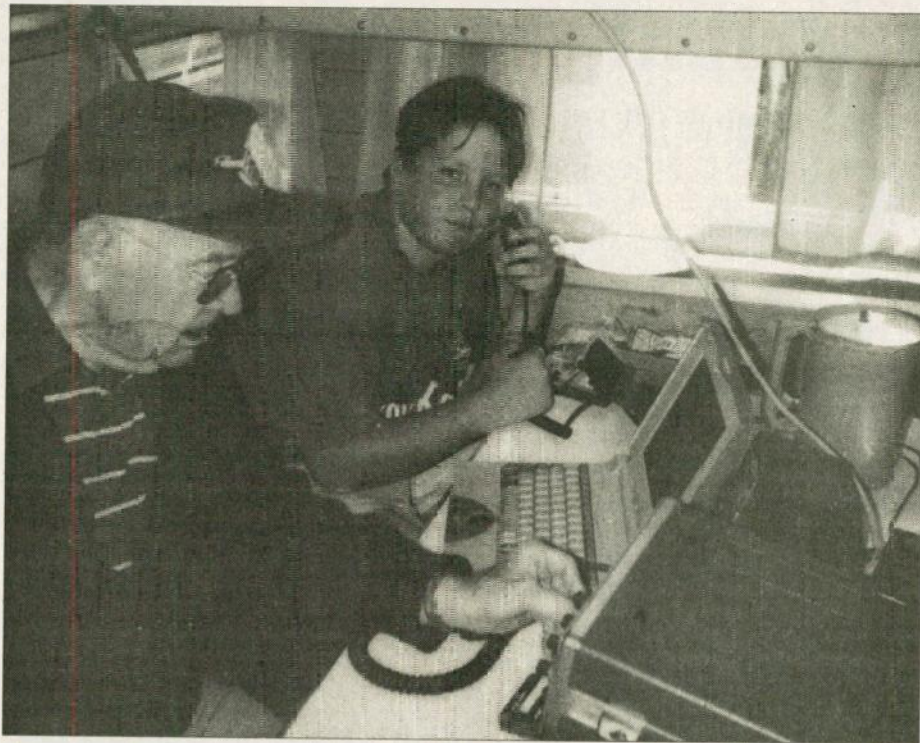
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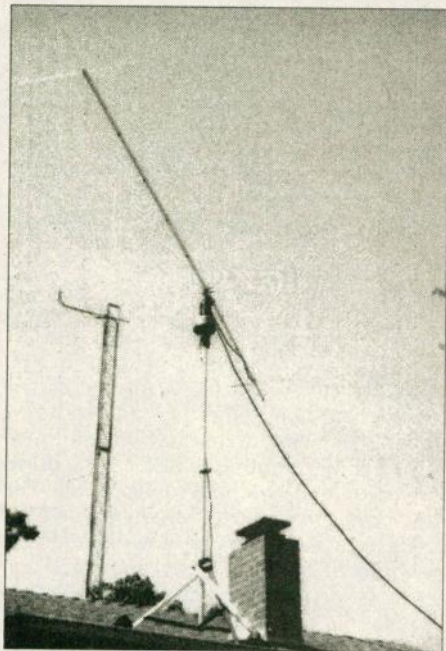
Why we didn't make it to Field Day

Bob Wiser, KD6FXQ

It was asked of club members why they didn't make it to Field Day this year. I didn't make it up to the club's site because I was too busy operating Field Day from my driveway, along with my father Chuck Wiser, KF6OZP, and my son, Michael. After spending many hours away from home in the past few months working Amateur Radio at several air shows and other events, I felt it was time to spend some time at home. Yet that urge to pick up a mike and call "CQ" was still there and Field Day just intensified this feeling. I asked my son, who wants to get his license, if he would like to work Field Day and he responded, "Could I?" After reviewing the contest rules and confirming that he could work



My dad, Chuck Wiser, KF6OZP, and my son, Michael, operating Field Day from our driveway.



Our temporary Field Day antennas on the roof of the house.

the event with me acting as control operator, I told him, "Let's get to it and set up." I gave my dad a call and asked him if he was interested in working Field Day and it wasn't long before I had the third member of our team.

We worked out of our 16-ft. camping trailer in our driveway. After clearing out all of the ARES equipment I had stored in there since the Watsonville Fly-In and Air

Show, we set up our station which consisted of a Kenwood TM-700A, 2-meter All Mode rig and a Kenwood T-V7 2-meter/70-cm FM rig. Our antenna for the side-band operations was an 11-element Yagi mounted horizontally on the top of a 20-foot tripod stand with a CDR Ham-M rotor. This entire mess was then hoisted up onto the roof of our house where it was secured in place with some sandbags and aligned to North. This brought out some interesting comments from some of the neighbor kids and people passing by. Our other antenna was a Diamond 50, 2-meter/70 centimeter vertical, also mounted on one of the 20-foot tripod stands. But this time we just left this one on the lawn. One of my daughters, when asked by one of the people passing by what the stuff was for, replied that we were trying to contact people on Mars.

I don't know if they give points for the highest number of generations in the same family working field day but we would have been up there with our three. Even so, we had fun and made a grand total of 25 contacts, which was 23 more than I did last year. We even pulled one out of the soup when we made a contact with Santa Barbara on 2-meter USB with only 10 Watts. Our contact told us we were making his QTH with an S9 signal.

So I guess you could say we did make Field Day after all, but we never got out of the driveway. No, we didn't use commercial power as you might think, being that close to an electrical outlet. We ran the entire day off of two 75 aH marine Gel Cells. To run the rotor controller we used a West Marine 250W DC/AC inverter. We also ran the computer off of the batteries as well to keep the internal battery from bottoming out in the middle of things. I decided to see how the Gel Cell charger would work with a load on the batteries, so in keeping with the rules for emergency power operations, we connected the charger's 120V AC input to my 2.4KW generator (yes just a bit of over kill, but then, it worked).

All in all it was great fun and we all learned a lot. My son got his feet wet on what it's like making radio contacts and my dad got a dose of another side of Amateur Radio. But most important of all, we spent time together as father, son and grandson, and had fun with radios at the same time.

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HIRAM PERCY MAXIM

Antietam Radio Association will operate station W3CWC as a special event station to commemorate the 130th Anniversary of the birth of ARRL founder and noted inventor "Hiram Percy Maxim W1AW". W3CWC will operate 1600-0200UTC 28 August - 02 September on or close to the suggested frequencies of 3.905, 7.230, 7.035, 14.250, 28.450, and 147.09 MHz. A colorful certificate will be offered to those who QSO W3CWC's special event and send QSL and large SASE to the Antietam Radio Association, P.O. Box 52, Hagerstown, MD 21740-0052 by a mailing deadline of 30 September 1999.

VIRGINIA AIR & SPACE CENTER

Virginia Air and Space Center Amateur Radio Group will operate KE4ZXW, 25 - 26 September 0000 - 2359 UTC on UO-22 or KO-25. 1500-2200 UTC @ :00 on 7.265, @ :15 on 14.265 and @ :30 on 28.365 to celebrate 4 years of 9600 baud automatic Satellite Station operation & Amateur Radio exhibit. QSLs are available by sending a SASE to Ed Brummer, W4RTZ, 108 Oyster Cove Rd., Yorktown, VA 23692.

BEAVER ISLAND

The Michigan DX Association (MDXA) will be putting "Beaver Island" on the air on 10-17 September. Beaver Island is IOTA #MI032L and an eight-man team will use the call KC8MHX. Michigan Ham Xpedition, on the standard IOTA freqs as well as other frequencies. For a QSL card, please contact W8VOM at: MDXA-Beaver, 0-947 Lake Michigan Dr., Grand Rapids, MI 49544. Also visit: <http://members.tripod.com/~CYBERHAM/WMDXA.html>

SCARECROW FESTIVAL

Fayette ARA will operate W8NCI, 18 & 19 September from 1500-2100UTC in celebration of the 5th annual Scarecrow Festival at Washington Court House, OH. Frequencies are: 7.235, 14.260, 21.350 and 28.360 MHz. Certificates are available by sending a 9x12 SASE to Brad Templin, 1916 Patterson Rd., Dayton, OH 45420.

LEWIS AND CLARK

The Lewis and Clark Trail Hilltop DX Society will operate station KD7ALJ to commemorate Lewis and Clark's river journey down the Clearwater River in September of 1805 enroute to the Pacific Coast. KD7ALJ will be on the air from 1600UTC 04 September-0000UTC 06 September on 75-80, 20, 15 and 10 Meters using CW, SSB, RTTY and Pactor modes. QSLs are available by sending your QSL and an SASE to: Elmer Robertson, KJ7XK, P.O. Box 1484, Orofino, ID 83544.

MISS AMERICA PAGEANT

Southern Counties ARA will operate K2BR, from 1400UTC 13 September - 0400UTC 19 September from the Miss America Pageant in Atlantic City, NJ. Atlantic City is located on Absecon Island (IOTA NA111). Frequencies are: 7.050, 14.050, 21.050 and 28.030 MHz CW, and 7.250, 14.250, 21.325 and 28.325 MHz SSB. QSL by sending a #10 SASE to: SCARA, P.O. Box 121, Linwood, NH 08221.

STERNWHEEL FESTIVAL

The Marietta ARC station (W8HH), will be celebrating the annual Ohio River Sternwheel Festival with a Special Event station 11-12 September. Hours of operation are as follows: Sat., 1300-2300UTC,

Sun., 1300-1900UTC. Watch for us on CW, .055 kHz up on 160, 75/80, 40, 20, 15 and 10 Meters. On SSB watch on General sub-bands up. A certificate will be issued for confirmed Two-way contact. Send QSL and 9x12" SASE to: W8HH, P.O. Box 393, Marietta, OH 45750.

PEARL S. BUCK

Warminster ARC will be operating special event station K3DN, 26 September celebrating 20th anniversary of volunteer service by tour guides and gift shop staff; 50th anniversary of the Welcome House and the 35th anniversary of the Pearl S. Buck Foundation. Pearl S. Buck was one of America's most famous authors, receiving the Nobel and Pulitzer prizes. Frequencies are: 7.240, 7.040, 14.250, 21.350 and 28.350 MHz. Certificates are available by sending a 8 1/2x11" SASE for unfolded certificate to: Warminster ARC, P.O. Box 113, Warminster, PA 18974.

EAA FLY-IN

Fayette ARA will operate special event station N8EMZ, 04 & 05 September, 1500-2100UTC from the EAA Fly-in at Washington Court House, OH. Frequencies are: 7.235, 14.260, 21.350 and 28.360 MHz. Certificates are available by sending a 9x12 SASE to Kenny Rowley, 2895 White Rd. New Holland, OH 43145.

DURHAM FAIR

Meriden ARC will operate W1NRG from the Durham Agricultural Fair 24-26 September on the lower General portion of HF CW and SSB bands. For certificate send SASE to W1NRG Meriden ARC, P.O. Box 583, Meriden, CT 06450.

OLD FASHIONED CANAL DAYS

Tri-County ARC will operate W8YEK 18-19 September during Old Fashioned Canal Days. Operation will be in the general portions of 20 and 40 Meters. QSLs to: James Knebel, W8BHA, 228 N. Breck St., Delphos, OH 45883.

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Product Review

GGTE's Morse Tutor Gold

Armond Noble, N6WR

We have come a long way! Back in days of yore, how did prospective amateurs learn the code? One method was to have a buzzer (that was before the days of tube oscillators) and with a key, send to yourself until the code was familiar. Often, two aspirants would get together and take turns sending to each other.

After that, the plan was to listen to stations on the air and find some that were slow enough to copy but fast enough to push one's speed up. Then there was (and still is) the ARRL Code Practice on the air, five nights a week.

Old-timers can still remember the leather smell of the Instructograph. It was a machine that played punched paper tapes. The tapes came in various speeds, marching always upwards.

A few generations later, many cut their teeth on the Pickering set of audio tapes, which had three sets, preparing the amateur for the 5, 13 and 20 wpm tests. It was an arduous grind, moving one's speed up a few words per minute at a time. But that was a day when people voiced sentiments like, "I want to be Ham so much I can taste it." They felt any effort was worth obtaining a license that would lead to a lifetime of enjoyment.

But now, in the computer age, the learning of CW is very much easier, almost a lark.

The GGTE company has, for 12 years now, produced a very good system for learning CW. In the introductory phase, large letters are displayed on the monitor screen when the sound of an individual letter is played, which leads to a reinforcement.

Since most of you reading this review are more concerned with upgrading than learning Morse from scratch, we'll devote this review to that phase.

The marvelous aspect of this Morse Tutor is that instead of learning, as in the past, 5 wpm, 6, 7, 8, etc., and inching up the ladder with (for most) learning plateaus at the particular speeds of your particular misfortunes, a different system can be used.

For example, if your goal is 22 wpm and your present comfort speed is 15 wpm, you can set the parameters for 22 wpm characters sent at a 15 wpm rate. Then after you go through the 12 lessons (at one lesson per night) you can notch the system up to 16 wpm. Later you can walk up through 17, 18, 19, etc.

The same system applies to get to say 15 wpm from 7 wpm. What happens is that the character speed stays the same

and the spaces in between get shorter, which increases the word speed. Tricky, right? It just fools your brain, and gets you where you want to go.

Now, for those of you who feel that one wpm increments are too much, you could go at one-half word increments. In fact, for those who believe that they are "hard learners", you can increase the speed in one-tenth wpm increments.

This is sneaking up on your goals the somewhat slow, but steady way. Any method that gets you there is fine. For example, you can have 35 wpm characters at 5 wpm word speed and over a long haul, close the gap.

Each of the lessons introduces characters, then the newest characters are used in random groups followed by all the characters learned up to that time. Last there is a section with words made from all the characters.

Another attribute of Morse Tutor Gold includes the ability to keyboard in the characters you may be having difficulty with and listen to them in a row of the length of your choosing. There are many other features.

Last, but not least, MTG has a more pleasing tone to the ear than other computer CW programs tested.

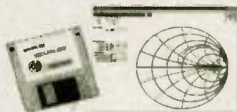
It will work with all DOS computers. Price is \$29.95 and \$4 shipping/handling. California residents add \$2.32 tax. GGTE is at P.O. Box 3405, Dept. MW, Newport Beach, CA 92659.

The Smith Chart

Electronic Applications of the Smith Chart, by Phillip H. Smith — This is an updated edition of the original, classic reference book by the legendary Smith Chart inventor himself. This book describes how the Smith Chart is used for designing lumped element and transmission line circuits and includes tutorial material on transmission line theory and behavior, circuit representation on the chart, matching networks, network transformations and broadband matching. It also includes a new chapter with example designs and a description of *winSmith* (see below). — **Our Price \$59.00**

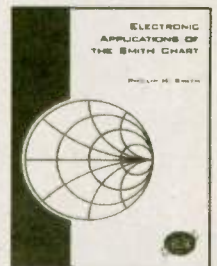
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ALAN DORHOFFER, K2EEK

Alan M. Dorhoffer, K2EEK, Editor of *CQ* magazine for nearly a quarter-century, died 19 July from complications of cancer surgery. He was 61. Dorhoffer was born on 23 February 1938, and spent his entire professional life at *CQ*, starting as an Assistant Editor in 1964. He became the magazine's 10th Editor in 1976. He was a co-owner of the magazine since 1979.

Dorhoffer lived in Port Washington, New York, and had been a Ham since his teenage years, concentrating his activity on his favorite band, 10 Meters. At *CQ*, Alan tried to focus on the "people" aspect of Amateur Radio. "Ham radio is people interacting with other people," he wrote in the magazine's 50th anniversary issue, and on the things people do with Amateur Radio. "The act of doing, whether it's contests or awards, that's been my outlook."

CQ Publisher Dick Ross, K2MGA, said Alan had been like a brother to him for over 42 years. "We'd butt heads from time to time on editorial matters, but that in no way diminished our mutual love and respect," Ross said, adding, "He was always there for everybody."

Alan's illness was diagnosed only a week or so before he succumbed to it. Alan was not married at the time of his death, and had no children; but he is survived by an "extended family" of over 1,000,000 close friends, the world's Amateur Radio operators. — *CQ Communications*

MURRAY DEUTSCH, WB2TDJ

Murray Deutsch, WB2TDJ, recently died at age 80. A prominent and well-liked amateur, he was well known as a VE for the CW test at the Long Island Mobile Amateur Radio Club, (LIMARC) in the New York metropolitan area. And Advanced class licensee for many years, Murray mastered the code at a relatively late age, earning his Extra class license. CW and DXing became his passion and he excelled at both. His efforts helped to establish an operating low-band station exhibit with the Hall of Science ARC (HOSARC), at the site of the old World's Fair grounds at Flushing Meadows, NY.

Originally a professional photographer, his subjects included many luminaries of Broadway shows like Mary Martin in "South Pacific" and Gertrude Lawrence in "The King and I." Eleanor Roosevelt was said to have remarked that no one could take her picture like Murray.

Later an engineer at the U.S. Post Office, Murray's military background included WWII service in the Marines at Guadalcanal and Okinawa. A medic, and ever the tinkerer, he devised a surgical clamp, a form of which is in use today.

An affable "Poppa" figure, Murray was held dear by one and all, both in and outside of the amateur community. — *KA2UTF*



Martin Cordes, KL7IR

MARTIN CORDES, KL7IR

Martin "Marty" Cordes, KL7IR died 26 January in Haines, Alaska. Always interested in electronics, he acquired his Amateur Radio license and call sign, W7EAW, in his early teens. Marty studied Electrical Engineering at the University of Washington and worked during the summer as a radio operator on the *USFS Eider* in Kodiak. He joined the Navy in 1942 as an Ensign and in 1943 was sent to Harvard for officer training. He was then stationed at CINCPAC, Pearl Harbor as a radio/radar officer and worked on the installation of radar-countermeasure equipment on warships, trained radio, radar and sonar operators in the operation of highly classified equipment, evaluated enemy electronic equipment and assisted in the printing and publication of classified intelligence reports of enemy electronic capabilities for dissemination to the U.S. fleet. After a brief service stint in Japan, he transferred to Washington, DC, helping to evaluate new electronic equipment

where his wife of one year, Allie DiRe Cordes joined him. Marty and several other veterans purchased Fort William H. Seward in Haines, Alaska in 1945. He was eager to return to Alaska and when his tour of duty ended in 1946, turned down

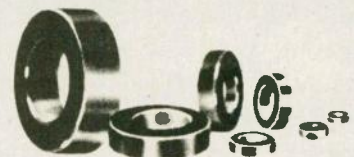
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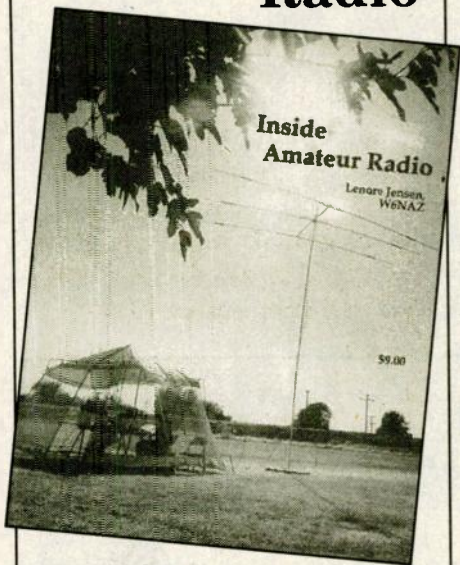


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Inside Amateur Radio



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a promotion to Lieutenant Commander, but remained on the USNR inactive status until 1955. He and Allie lived in Haines for the next 52 years. Marty was there to stay and changed his call sign to KL7IR. He worked for the CAA, as a carpenter; as an office manager for the Schnable Lumber Company; started a commercial photo studio, "The Mukluk Hut"; and delivered mail to the village of Klukwan and Haines highway residents for 41 years. Marty found time for hobbies and civic duties that included an appointment by Governor Hickel to the Older Alaskans Commission. In particular, he participated in Amateur Radio activities on a daily basis, keeping in touch with friends around the world, mostly in the CW mode.

He helped establish a local radio station, KHNS, serving as the first transmitting engineer and on the Board of Directors. He taught code to local high school classes. Marty and fellow amateur "Bud" Hopper, KL7CQF worked non-stop during the 1964 Alaska earthquake relaying information. On 10 May 1962, his QSO with amateurs in Seattle and California was interrupted by a faint call from "Doc", KL7USN. He answered and it turned out that he was the only one able to communicate with a 22-man Navy team stationed

at the Scott Station under the ice and snow at the South Pole. For over three months, he was the only communication link for the crew, even phone patching hundreds of long distance phone calls across the country. — NL7RD

AUBREY KEEL, WØAKL

Aubrey E. Keel, WØAKL, the last surviving Associated Press telegrapher and one of America's oldest WWII veterans died 25 June in Kansas City, MO. He was an Amateur Radio operator for 51 years.

A very proficient CW operator, he learned telegraphy at the Santa Fe Railroad station in Goldthwaite, Texas, where he worked to help relieve a shortage of operators during WWI. He worked for the railroad for eight years and then was hired by the AP in 1926 to copy the news at several Texas newspapers. He routinely copied news on a typewriter for seven hours and 10 minutes a day at speeds ranging from 35 to 45 wpm.

Although he was one of the oldest WWII veterans, his military service was less than one year. At the age of 40 in 1942, Aubrey enlisted in the Army Air Corps. He was unmarried at the time and draft eligible, so he enlisted for the privilege of choosing his branch of service. After he served a few months, the military began discharging older men if they could be placed in jobs essential to the war effort. As it turned out, his former job with AP fit that description and he returned there.

Aubrey, who retired from AP in 1966 with 40 years service, was the second oldest retiree of the news gathering organization. On AP's 150th anniversary last year, he was guest of honor at a board of directors' dinner in Washington, DC and demonstrated Morse telegraphy, used by AP to disseminate news for 85 years.

His telegraphy service was all in Texas, and he remained with AP after the Texas Morse wires were replaced by teletypes in 1933. He was then assigned to the New York office as a technician. He was later promoted to chief of communications at Des Moines, Los Angeles, Milwaukee and Kansas City.

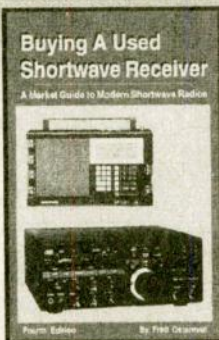
Although landline telegraphy became obsolete, he never lost his love for Morse code. He acquired his amateur license in 1948, and until a few weeks ago used his Vibroplex key to send code every day for the last five years to Macalee Hime, AB5TY, as well as to other amateurs on the Queen Bee Network. — KB7BAD

ANATOLY MOSKALENKO, UA2AO

Prominent DXer Anatoly Moskaleenko, UA2AO, died 28 June after a long illness. He was a member of the DXCC Honor Roll and well-known as a Russian WW II lend-lease equipment collector. — UA1OSM, ARRL Letter

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ARRL Southwestern Division Convention, 1-3 October 1999, Registration

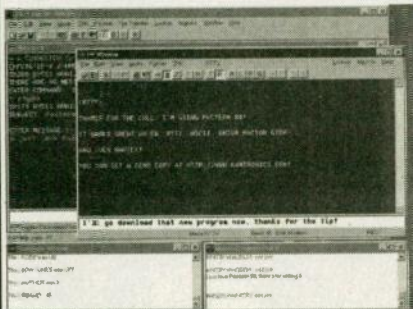
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Station Appearance

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.



Donald Dubon, N6JRL

I was first licensed in 1963 as WN6LQM. As a Novice my first rig was a Hallicrafters S-38 (found in a trash can). When I got my ticket, my parents bought me a Johnson "Adventurer." These two pieces of equipment are in my shack and are still in working condition.

After retiring recently from the military, I built this shack in my basement in Kettering, Ohio. The main rig is a Yaesu FT-890AT and a Yaesu SP767 speaker phone patch. An Ameritron AL-84 Linear amp (first one I've ever owned) and Astron power supply round out the bottom of the desk.

Top shelf includes a DX-390 receiver, laptop computer, power supply and an Kantronics KPC-3 and an Icom O2AT for packet. Also not shown, but used for mobile and Field Day, is a Ten-Tec Scout 555 and an HTX100 for when 10 Meters opens.

My interests include 160-2-meter SSB, CW, FM, AM and packet operation. I am also a MARS operator (NNNØSYX), and I enjoy Skywarn and club activities with DARA in Dayton. I recently moved here from Jacksonville, NC, where I was president of the Onslow ARC for two years.

My brother is also a Ham in Colorado, (NØZUQ) and my son is KD4YHY. My wife is N3TQU and my mother is KBØSHJ. I guess we could be referred to as the "Whole Ham Family!!"

Amateur "Hi"



*Ever had a funny or strange experience with Amateur Radio, 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*!*

Enntrimm, PA

Claudia Lang, WB3L

About 20 years ago, I decided to become an Amateur Radio operator and I bought a used transceiver. Upon listening to it, I came across a local Pittsburgh net on 10 Meters and decided to listen for awhile. Some of the Hams

were giving their QTH and I could recognize most of the places except for a young lady that would give her call and promptly say "Enntrimm, PA." I got out a map and searched for that town, but all I could find that sounded similar was a town north of here called Tarentum, PA, and I assumed she was from there.

I eventually earned my Novice license and upgraded to Advanced class. You can imagine my surprise when I learned that upgrades could immediately use their new privileges by stating "Interim" immediately after their call. No wonder I couldn't find it on the map!

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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 is within reach of all 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 this award, such as N6JM/UL7.

3. All contacts must be with land-based stations. Contacts with ships, at anchor or otherwise, and aircraft cannot be con-

sidered.

4. All contacts shall be made from the same country.

5. Only contacts made on or after 01 January 1978 will count.

6. The application shall 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 shall 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 achievement bears such recognition. All modes and bands may be used.

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*.

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PB7	7.2v @	1500 mah	\$49.00
PB8	12v @	800 mah	\$49.00
PB-13	7.2v @	750 mah	\$37.00
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EDP-18N	12v @	600 mAh	\$47.00
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Letters to the Editor

Call sign abuse...

I heartily endorse WF6O's point of view on call sign abuse, and his effort to tweak the FCC about it. Vanity call signs are of no interest to me — I've kinda got used to my sequentially-assigned call and see no benefit in a "prestige" call. But it is sad to see a few greedy individuals abusing the spirit of the rules and I'm happy to see some actions to rein them in!

Unfortunately, lawlessness has crept into Amateur Radio to an alarming degree. Illegal operations aren't exactly new, but the proliferation of rudeness, interference, and foul language among the ranks of licensed Hams is embarrassing as well as dangerous. Hurrah to Hollingsworth and the observers who are helping in the pitifully undermanned defense against the nasties!

W. F. (WILL) SILL, KD3XR
TUNKHANNOCK, PA

Thanks for taking the time to dig into the abused club call sign issue. And thanks again to Riley Hollingsworth, K4ZDH for the FCC involvement. The Hams out here in grassroots land really appreciate the effort to keep Amateur Radio from going out of control.

ROY DAVIDSON, WP2F
HEMET, CA

Your July issue blast at the abuse of the club call sign system surely got action! I congratulate you and *Worldradio* for calling dramatic attention to the matter and getting Riley Hollingsworth to walk back abuses.

You were the catalyst that sniffed out and corrected this, and scooped the Amateur Radio press in doing so.

CARL FELT, JR., N2XJ
CHATHAM, NJ

QSLs

I'd like to comment about your "Editor's Log" comment about poor QSL response in the July 1999 *Worldradio*. I must work a better

class of people because my recent response is much higher. During this past April's QRP contest, I made twenty QSOs, sent out twenty QSLs, and got eleven replies. That's 55%. I did not send any SASEs or tell the other Hams what I was going to do with the cards. Just bare-naked cards with post-card postage.

I was happy with the response because I wanted to use the QSLs for a QRP radio display for "show-and-tell" at radio club meetings. I made a poster that said all the QSOs were made with this radio and mounted the cards around the edges. The entire display (poster, rig, antenna, coax, key, headphones, and battery) fit inside an old briefcase. It makes bragging about QRP much easier.

AL BATES, W1XH
CHELMSFORD, MA

Per your comments on QSL returns from contests, I concur with your observations but add the following. From my Novice and General days in the 60s, I remember QSLing being described as a courtesy, in the vein that to not QSL was a dishonor. And lack of promptness was call for an apology. Things have changed a little in this regard.

Contests are a good source of contacts in needed areas because of the increased activity. But, there apparently are a significant number of contesters who are not interested in QSLing. Being mostly a non-contester, I look at it like a cooperative deal — I help their score and they help me work toward an award. You might wait until the summer is over before you pass judgement on the return rate. Some contesters are as prompt as possible. A good number of them focus on contesting during the contest season and catch up on QSLing chores during summer, the off season. My experience in working a 5BWS led me to believe that contesters are not the best QSLers but they are not the worst. Two-meter band openings have led me to send cards with SASE to the worst bunch of QSLers. Some of them may not know what the card is all about when they get yours. With the

large growth of the codeless tech license, I suspect that the percentage of the amateur community that sends QSLs has dropped dramatically.

I would hope that you are getting a significant response to KC2AFK's letter about the Kurt N. Sterba column. It is commendable that David rose to the Extra class level so quickly, I frittered away 10 years as a General then 22 years as an Advanced class licensee before the bug bit me to go after the Extra class license. But had David peered through the material available for years, he would find that there is a wealth of technical literature around. The problem is, not all of it is truthful or correct. Only Kurt seems to be willing to pursue that. Don't let up a bit, Kurt — you haven't gotten through yet.

CLAY CONARD, WOFS
STRATFORD, IA

Having been a Ham since 1940 (W9JWD), and having almost perfect response on my QLSing, let me tell you my methods.

Respond promptly and be sure you have the date and time correct. I'm astounded by cards I receive with both incorrect. Include an SASE or SAE with ample return postage. IRCs and "green stamps" seem to work equally well for me.

I just received an E44DX card to complete 100% of countries worked confirmed. I have ARRL's #1 DX plaque.

I have 3,079 U.S. counties confirmed and USA.CA #4.

Two years ago I started on multi-band WAS and have cards confirming 160, 80 and 40 Meters, so my simple QSL methods can't be too bad.

Here's hoping my guidelines will help.

CHARLEY RICK, WOBL
FESTUS, MO

Recently I have read about Hams who seem to experience great difficulty receiving confirming QSL cards. While I do not doubt the validity of their comments, I feel compelled to say that my QSL experiences are quite the contrary. Between 1976 and mid-1999 I have had confirmed 330+ ARRL countries with only one major problem that required three separate attempts via different QSL routes to receive my confirming card. Sure, there have been a few times that I had incorrect QSL route information which required two submittals to finally get a confirming QSL card, but I consider this a minor inconvenience.

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Yes, there were also a couple of "slims" I worked that, for obvious reasons, do not send cards.

What is my secret? There isn't any. Following well established QSLing procedures works for me; clearly printed addresses on all envelopes, clearly written QSL cards with the exact dates and times along with sufficient postage has worked nearly 100% of the time.

Maybe it is just the luck of the draw that makes the difference. My experience clearly shows that receiving, or not receiving, confirming QSL cards is not the grim, unrewarding, experience reported by others.

Guess what? The postman just arrived with two ZL9CI QSL cards, 16 July 1999 at 1300CST — no kidding!

JIM HISSEICH, AF0F
IRONTON, MISSOURI

Kurt n' Lil Paddle

In reference to the July 1999 issue — First, a fine issue as always.

Second, how come nobody publishes transcripts of the lectures given at Dayton? I always read about what a great Hamfest it was and how interesting the lectures were, but I doubt I'll ever make it there myself. However, I would very much like to read transcripts of lectures and forums I'm interested in. I think an opportunity is waiting for someone to open the door.

Third, on the Kurt debate. I have no problem with someone using a non-de-plume if I trust the publisher/editor, as is the case for *Worldradio* magazine. However, I do agree with Mr. Ruth in that Kurt's non-use of specific company names when debunking their claims does me no good. The same holds true when he/Lil Paddle cite passages in antenna books without naming the book or author. How am I supposed to know which book not to spend \$20-\$30 on without that information? I saw nothing in Mr. Ruth's letter which I would consider personally disparaging to Kurt and don't understand why Kurt would feel insulted.

WILL SEIBT, WA7GKX
ALOHA, OR

Mr. Ruth in the July issue does NOT speak for me.

I, too, have some letters of the alphabet after my name, but they are not in the area of radio theory. I greatly appreciate having someone of Kurt's ability telling us the straight

truth with the hype cleaned off. In fact, his articles are the reason I take *Worldradio*. No Kurt, no subscription, probably.

All three of Kurt's books have been purchased and read. His (and her) recommendations as to honest companies are eagerly looked forward to. Their voices are a refreshing wind in a world of hot air. Why would anyone not connected with those spouting hot air be opposed to the rest of us learning the truth? Why, if we aren't careful, we might even learn something new and useful about our hobby.

Encourage Kurt and Lil to keep on keeping on. Their effort is appreciated.

BERNARD ACKERMAN, KF8CW
TRAVERSE CITY, MI

Worldradio on tape

I am a blind person who has been listening to *Worldradio* on tape for five years. I would not be able to enjoy your excellent publication without the help of Tom Carten, K1PZU, who does a great service for blind hams. I know that I am always well educated on the happenings in our wonderful hobby. I look forward to getting your magazine each month. I want to thank you and Tom for the great jobs that you do.

BLAKE HAILEY, KA5POW
FORT WORTH, TX

Keep up the good work

I enjoy the new style that you have brought to the magazine, congratulations. Also, your investigative piece on club call sign combined with constant mentions of FCC enforcement by Riley Hollingsworth make it feel like the "old days" when Frank Charlie Charlie had some teeth. Please keep up the good work.

With all the discussion on the demise of CW, I have often wondered why the FCC continues to restrict the lower half of the CW bands — i.e. 7.0-7.025 to Extra class only. I only operate CW and as much as I would like to take the time to upgrade, it never seems to happen. I imagine that there may be many of us "Generals" who cannot use the lower 25 on the CW bands. I really don't have much

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time to operate and don't feel compelled to make the transition.

I also updated my QRZ listing at your request.

GREG ANDRAKE, W2HRX
PINE PLAINS, NY

The little things

I can certainly empathize with Steve Seegmiller, AC6OJ. The amateur community does not show an appreciation for new participation. Now that they are on the air their attitude seems to be close the gates and keep everyone else at bay.

Not long ago I stopped in at a nationwide supplier. There were two guys talking. They totally ignored me. I took a walk around the place, and then I left. They blew a sale, because I am not on the air. I need everything.

Not long ago, I made several attempts to get my hands on a KWM-2A that was offered for sale. I want to set up a station like the one I operated in the military. I needed the KWM-2A first of all, but I felt that the guy just did not want me to have it. Where is the comradeship? Now, I will admit that I am a big, ugly, and old geezer, but on the air would that show?

WILLIAM M. BULLOCK, KF4IKE
DINWIDDIE, VA

Thanks for free sample

I have been a licensed Ham since 1934 with call signs W9WSN, WØWSN, W8SLK, W9IPL and other calls I have forgotten. I want to tell you that your publication is by far the best I have run across. I have not been active for many years, but manage to keep my present call, W9IPL, licensed. In the past I have taught Boy Scouts the code and some have gone to get their novice tickets. Congratulations and keep up the good work.

Someone mailed me your August 1999 sample copy.

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9913/PIN	N Male Pin for 9913, 9086, 8214	
	Fits UG-21 D/U & UG-21 B/UN's	1.50
UG-21D/9913	N Male for RG-8 with 9913 Pin	4.00
UG-21B/9913	N Male for RG-8 with 9913 Pin	6.00
UG-146/AU	N Male to SC-239, Teflon USA	7.50
UG-83B/U	N Female to PL-259, Teflon USA	7.50

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W-100-N

Only one application for Worked 100 Nations was received this last period. Everything was in order except for the most important part — no list of contacts. A signed statement from the two licensed amateurs is not enough. Their responsibility is for verifying that the applicant does have the subject cards in his possession, and not to research the card to see that it is valid for this award.

CATZ

Another application for our new CATZ award was received. Congratulations to: **Michael Spinler, N7VZU #9 30 June 1999**

Niger (5U)

Dan Germaine, AE4RP, will be in Niger until next summer, (and maybe the following summer), signing with 5U7DG. He is presently active on the high bands (10 to 20 Meters) and hopes to be on the lower bands (40 to 160 Meters) soon.

According to 425 DX News Dan is the only amateur in the country and is running 100 watts. He is currently active on 10-20 Meters, including 12 and 17 Meters. He hopes to get on the low bands as well.

Zambia (9J)

Longtime active from Zambia is Brian Otter, 9J2BO. Recently, he has been active near 21.213, 24.893 and 28.005 MHz between 0550 and 0610 UTC.

New Caledonia (FK)

Right about now Jacques Mainguy, F6BUM, will be operating from various island groups in New Caledonia signing with FK/F6BUM. Operating both modes, CW and SSB, Jacques will operate from the main island (OC-032) between 09-21 August 1999. He is schedule to operate from other groups as follows:

Ouvea Island	OC-033	22-24 August
Lifou Island	OC-033	25-30 August
Mare Island	OC-03331	Aug.-02 Sept.
Pins Island	OC-032	03-05 Sept.

Papua New Guinea (P2)

Tom Logan, P29TL, has returned to Ukarumpa in Papua New Guinea for another four years after two years stateside. Tom is active presently 10, 15 and 20 Meters operating SSB.

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SS-006	160M SINGLE-BAND 1/2-SLOPER	60' OR 85' LONG	\$47.00
NBC-068-40	160-80-40M BROAD BANDER	105' LONG	\$73.00
MS-064-K12	160-80-40-15-12M DOLBY SLOPER	60' LONG	\$79.00

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North Korea (P5)

The P51BH operation from North Korea this past April has been approved by the DXCC Desk. Photo QSL cards are presently being printed and will be sent out soon.

Marshall Islands (V7)

425 DX News notes that Bruce Smith, AC4G, hopes to be signing V73G from Kwajalein Atoll (OC-028) for at least two years. Bruce plans to be active on all bands, both CW and SSB.

Lord Howe Island (VK9L)

Nick Hacko, VK2ICV, will once again be going to Lord Howe Island (OC-004) this fall. He will be signing with VK9LX beginning 24 October and run through 02 November. His plans include participation in the CQ World Wide DX Contest.

Campbell Island (ZL9)

Ken Holdom, ZL2HU, reports that the majority of the Campbell Island DXpedition QSL requests were answered as of 30 June. He said that there were some 40,000 QSL cards to stuff in 11,250 envelopes.

Direct requests that did not include sufficient postage or where an SAE was not included will be returned via the bureau system. If you have not received your card(s) at this time you should send a second request.

Ken and his team are now planning another DXpedition, this time to the Tokelau Islands in 2002.

IOTA

If you need the Madeleine Islands (NA-038) look for VE2/F5NZO or VE2/F2SSM. Their visit is scheduled for the period 11-14 August. We visited these islands three years ago but were not in the position to set up our radio. Besides, it rained. The islands are mainly a bunch of sand bars in the Gulf of St Lawrence.

Look for Carlo Amorati, I4ALU, who will visit Ustica Island (EU-051) 08-20 August. In other words, he is on right now! He is signing with IE9/I4ALU.

The following IOTA operations have provided acceptable validation material to the IOTA committee:

EU-150 CQ2I	Insua Island	Apr 1999
OC-065 H40MS	Reef Islands	Jan-Mar 1999
OC-090 DU1/DL2GAC	Busuanga Island	Apr 1999
OC-127 H44MS	Rennell Island	Mar 1999
OC-141 VK8NSB/P	Groote Eylandt	Apr 1999
OC-221 YC8VYV/P	Kai Islands	May 1997
SA-015 4M51	Los Monjes Archipelago	Apr 1999
SA-037 4M5I	La Blanquilla Island	Apr 1999

Here is our monthly listing of IOTA activity that was on during June 1999. This list is incomplete. Not included were several DXpeditions such as the German group to Muckle Roe in the Shetland Islands (EU-012); the Italians to several islands in the Tuscany Region Group (EU-028); and the Russians to the White Sea Coast Group (EU-147).

AF-019 IG9/T4WCK	Lampedusa Island	10-29 Jun
AF-083 3V8DJ	Djerba Island	19-21 Jun
AN-015 8J1RL	Ongul Island	04-27 Jun
AN-017 FT5YG	Petrels Island	02-07 Jun
AS-005 RA0BK	Dickson Island	15-22 Jun
AS-008 JA1EY	Miyake Island	11-24 Jun
AS-008 7K3EOP	Miyake Island	21-24 Jun
AS-015 9M2TD	Pinang Island	02-19 Jun
AS-015 9M2TO	Pinang Island	02-30 Jun
AS-024 JS6LIH	Taketomi Island	11-17 Jun
AS-024 JA0KNM/JR6	Ishigaki Island	05 Jun
AS-024 JA3MCA/JR6	Ishigaki Island	05-06 Jun
AS-025 UA0FCD/P	Iturup Island	26-29 Jun
AS-028 UA0QW/P	Kotelney Island	06 Jun
AS-032 JO6PRM	Yakushima Island	19 Jun
AS-037 J66STZ	Koshiki Island	30 Jun
AS-040 JH6TYD	Goto Island	07-24 Jun
AS-041 JI3DST/4	Oki Archipelago	04-06 Jun
AS-041 JE4CIL/4	Oki Archipelago	04-06 Jun
AS-045 HL5FUA	Ullang Island	10-20 Jun
AS-045 HL5/JI6KVR	Ullang Island	18-20 Jun
AS-053 HS0/YK4MRH	Phuket Island	03-28 Jun
AS-059 UA0IAS/0	Spafar'yeva Island	10-23 Jun
AS-060 HL0ZX/4	Pigum Island	22-25 Jun
AS-064 UE0XZZ	Karaginsky Island	20-25 Jun
AS-079 JA5CKD/6	Miyako Island	01-29 Jun
AS-079 JA5DES/6	Shitaji Island	16-17 Jun
AS-079 JG1RVN/6	Shitaji Island	17 Jun
AS-083 RA9LI/9	Belyj Island	06-30 Jun
AS-094 BG7YB	Hainan Island	07-12 Jun
AS-095 UA0ZY/P	Bering Sea Coast	28 Jun
AS-103 BV9AAC	Penghu Island	03-22 Jun
AS-133 XUX0	Poah Island	26-27 Jun
EU-007 EI/G3ZAY	Blasket Islands	18 Jun
EU-007 EJ6IA	Blasket Islands	14 Jun
EU-007 EJ2HY	Blasket Islands	14 Jun
EU-008 2S0OFT/M	Raasay Island	17-18 Jun
EU-008 2A0BPP/P	Inner Hebrides	05-07 Jun
EU-020 MM/W9DC	Isle of Mull	05 Jun
EU-009 GM/WF5W	Orkney Islands	18 Jun
EU-009 GM0HTT	Orkney Islands	04 Jun
EU-009 GM0HTG	Mainland Island	14 Jun
EU-010 2S3JIJ	Isle of Lewis	08-24 Jun
EU-010 GMEMOR/P	North Uist Island	14 Jun
EU-016 9A2GF	Brac Island	03-21 Jun
EU-016 9A6A	Hvar Island	05-06 Jun
EU-017 ID9/DL28ANA	Isola Stromboli	23-29 Jun
EU-020 8S1IG	Gotland Island	30 Jun
EU-020 SM1SBI	Gotland Island	08-27 Jun
EU-023 9H8/9H3GI	Comino Island	19-26 Jun
EU-029 OZ/DL4OCI	Langeland Island	22 Jun
EU-029 OZ/DL5EU	Samsoe Island	06-08 Jun
EU-030 OZ/DL5CX/P	Bornholm Island	14-18 Jun
EU-031 IC8JAH	Isle of Capri	30 Jun
EU-031 IC8WJ	Isle of Capri	02 Jun
EU-032 F5GHP/P	Ile de Re	25-26 Jun
EU-032 F5RHE/P	Ile de Re	25-26 Jun
EU-033 LA4MQ	Vesteralen Islands	06-12 Jun
EU-036 LA4XGA	Frei Island	19 Jun

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EU-037 SM7DLZ	Oland Island	08-09 Jun	EU-091 OK7XIV/P	Isola Grande	12 Jun	EU-165 IM0/DL6NBR	San Pietro Island	08-18 Jun
EU-037 SM7CRW	Oland Island	16-22 Jun	EU-091 IJ7/IK7VJX	Chianca d'Abramo Is.	05 Jun	EU-165 IM0TK2DUW	Isola Piana	06-08 Jun
EU-038 PA/DJ5KBP	Wilhelm Island	26-27 Jun	EU-091 IJ7/IZ7CF	Chianca d'Abramo Is.	05 Jun	EU-166 IT9HLR/9	Isola dei Porri	18-19 Jun
EU-038 PA2JJB	Texel Island	18 Jun	EU-091 IK7VJX/P	Isola Grande	12 Jun	EU-166 IT9WDY/9	Isola dei Porri	19 Jun
EU-042 DL3LK	Isle of Sylt	26 Jun	EU-095 F6DHI	Les Embiez	05 Jun	EU-166 IT9YRE/9	Isola dei Porri	18-19 Jun
EU-043 SK6NL/6	Tjorn Island	18-19 Jun	EU-095 TM6BMP	Ratonneau Island	15-27 Jun	EU-166 IT9AXZ/IJ9	Isola dei Porri	18-19 Jun
EU-047 DL5BCJ	Borkum Island	23 Jun	EU-096 OH1LEG	Kemio Island	26 Jun	NA-028 KL7/DL1YMK	Pribilof Islands	18-21 Jun
EU-049 SV8/T3BQC	Lesvos Island	17-29 Jun	EU-098 DL2JRM/P	Poel Island	28-30 Jun	NA-034 KM4RX	Anna Maria Island	06-26 Jun
EU-049 SV8DTL	Lesvos Island	05-30 Jun	EU-098 DL4OCL/P	Poel Island	11-13 Jun	NA-047 VY0TA	Baffin Island	08-18 Jun
EU-049 SV8DTD	Lesvos Island	03 Jun	EU-101 OH6MIL	Vaasa District	25-27 Jun	NA-051 VE7TLL	Queen Charlotte Is.	20 Jun
EU-049 SV8CYV	Samos Island		EU-103 EJ9HQ/P	Saltee Island	19 Jun	NA-055 AA1LS	Moose Island	26 Jun
EU-049 SV8 PA1XA	Samos Island	18-30 Jun	EU-107 F/G0GRC	Ses Sept Iles	26-28 Jun	NA-057 AH6PN HR6	Roatan Island	06 Jun
EU-051 IE9/T2ADN	Ustica Island	03-09 Jun	EU-120 M0BWR/P	Isle of Wight	13 Jun	NA-059 NO7F/KL7	Unalaska Island	21-24 Jun
EU-051 IE9 IK8VRQ	Ustica Island	13 Jun	EU-120 M0BMJ/M	Holy Island	03 Jun	NA-065 AD7U	Whidbey Island	22-23 Jun
EU-052 SV8 HA5FAP	Kerika Island	01 Jun	EU-121 EJ0X	Irish Islands	05-06 Jun	NA-065 N6FD/7	Fidalgo Island	04-26 Jun
EU-052 SV8 OE6YRG/P	Zakinthos Island	24-29 Jun	EU-123 2S0EY/P	Arran Island	19-26 Jun	NA-072 HP1XVH	Contadora Island	05-29 Jun
EU-052 SV8/DL1EJD	Corvu Island	21 Jun	EU-123 GM3VLBP	Burnt Islands	26-27 Jun	NA-072 3E1AA	Contadora Island	25 Jun
EU-054 IF9ZRQ/P	Isola Galeotta	26 Jun	EU-124 GW0NWR/P	Bardsley Island	01-03 Jun	NA-072 3E1DX	Contadora Island	03-10 Jun
EU-054 IF9/T9GNG	Scoglio Correnti	(25)	EU-124 GW0MOI	Anglesey Island	20 Jun	NA-074 KL7AK	Nunivak Island	04-07 Jun
EU-054 IF9WKH	Isola Favignana	24-28 Jun	EU-124 GC0STH	Anglesey Island	15-22 Jun	NA-075 VE7BLC	Salt Spring Island	19 Jun
EU-054 IF9/T9GNG	Isola Galera	(27)	EU-124 MW0CLB	Holy Island	27 Jun	NA-080 C6AFV	Grand Bahama Is.	02-06 Jun
EU-055 LA2JX	Lok Island	04 Jun	EU-129 SP6ZDA/1	Usedom Island	02-05 Jun	NA-110 AA4V/P	Isle of Palms	15-20 Jun
EU-055 LA4C	Karmoy Island	13 Jun	EU-129 SP6MLX/1	Usedom Island	03-05 Jun	NA-112 N4VRR/P	Topsail Island	25 Jun
EU-057 DL5KUD	Reugen Island	03 Jun	EU-129 SP6NIC/1	Usedom Island	02-03 Jun	NA-151 OX3LG	Angmasalik Island	22-30 Jun
EU-057 DJ0MW/P	Reugen Island	17-28 Jun	EU-131 HK3QAR/P	Sant 'Erasmo Island	05 Jun	NA-173 VY00	Grass Island	25-30 Jun
EU-057 DL4PM	Ruegen Island	11 Jun	EU-131 IK3ABY/P	S Spirito	26 Jun	NA-198 VO1BAR/P	Newfoundland Cstl	05-12 Jun
EU-060 SV1CIV	Evvoia Island	02 Jun	EU-131 IK3PQH	Lido Island	11-30 Jun	OC-011 V63KU	Moen Island	04-30 Jun
EU-062 LA6WEA	Alsten Island	19 Jun	EU-131 I3TTY	Murani Island	27 Jun	OC-022 YC9BU	Bali Island	06-30 Jun
EU-067 SV8 SM0TXMP	Paros Island	08-21 Jun	EU-132 SP2QCR/1	Wolani Island	21 Jun	OC-027 FO0CLA	Nuka Hiva Island	02-22 Jun
EU-067 SV1CU/SV8	Tinos Island	01-30 Jun	EU-133 R1ASP	Kotlin Island	30 Jun	OC-027 FO5QG	Nuka Hiva Island	05-29 Jun
EU-067 SV8 G3SWH	Mykonos Island	17-23 Jun	EU-133 RA1AZ	Kotlin Island	11 Jun	OC-046 FO5PS	Moorea Island	02 Jun
EU-082 U1ZA/A	Kildin Island	05-28 Jun	EU-136 9A6DCR	Krk Island	03-27 Jun	OC-046 FO5CK	Tahiti Island	06-07 Jun
EU-083 IK1QBT/1	Isola Gallinara	05-06 Jun	EU-136 9A S59AAP	Cres Island	24-26 Jun	OC-059 V63AO	Kosrae Island	02-30 Jun
EU-083 IK1QXF/1	Isola Gallinara	06 Jun	EU-138 SM7QW	Hasslo Isle	06 Jun	OC-067 FO5NL	Raiatea Island	16 Jun
EU-084 SM5OIG	Roslagen Island	01-21 Jun	EU-139 SM3TLG/2	Seskaro Island	21-24 Jun	OC-075 YC5TML	Batam Island	06 Jun
EU-087 SM3TLG/3	Alnon Island	11 Jun	EU-143 ED7SPI	Isla Sancti Petri	26-27 Jun	OC-075 YC5YAS	Batam Island	04-27 Jun
EU-089 CU9/CU3DJ	Corvo Island	02-10 Jun	EU-148 TM5B	Fort Brescou Island	25-27 Jun	OC-075 YC5TA	Batam Island	30 Jun
EU-089 CU9AC	Corvo Island	30 Jun	EU-149 ES1QX/1	Aegna Island	05-06 Jun	OC-119 DU8ARK	Jolo group	02 Jun
EU-090 9A99P	Palagruza Island	20-26 Jun	EU-158 SV3/I2YYO	Proti Island	17-30 Jun	OC-128 DU1TMA	Palawan Islands	05-26 Jun
EU-091 IJ7/IK6CAC	Chianca d'Abramo Is.	05 Jun	EU-164 TK/PA3G10/P	Lavezzi Island	03-07 Jun	OC-129 KB2FB/DU7	Bohol Island	21 Jun
						OC-129 K9AW/DU6	Negros Island	21-27 Jun
						OC-129 DU6BG	Panay Island	17 Jun
						OC-130 DU8DJ	Mindanao Island	05-17 Jun
						OC-137 VK4CY	Lamb Island	08 Jun
						OC-137 VK4LV	Bribie Island	12-30 Jun
						OC-141 VK8KTC	Groote Eylandt	10-12 Jun
						OC-142 VK4YN/P	Fraser Island	12 Jun
						OC-143 YB5QZ	Sumatra Island	13 Jun
						OC-148 YC9MKF	Timor Island	16-17 Jun
						OC-148 YC9NBR	Timor Island	19-30 Jun
						OC-149 H44NC	New Georgia Islands	05 Jun
						OC-154 VK8AN/6	Troughton Island	04-30 Jun
						OC-183 VK6ISL	Green Island	06 Jun
						OC-185 VK8BB	Elcho Island	18-28 Jun
						OC-210 YC8RRK	Sangihe Island	02-30 Jun
						OC-210 YC8TXW	Sangihe Island	03-16 Jun
						OC-210 YC8RBC	Sangihe Island	08-26 Jun
						SA-008 LU3XQ	Terra del Fuego	11 Jun
						SA-008 LU1XSI	Terra del Fuego	27 Jun
						SA-008 LU8XW	Terra del Fuego	15 Jun
						SA-008 LU6XQI	Terra del Fuego	27 Jun
						SA-008 LU1XT	Terra del Fuego	26 Jun
						SA-026 PP5OW	Santa Catarina Is.	30 Jun
						SA-030 CV5A	Isla de Flores	18-21 Jun
						SA-046 PT7BZ/PY7	Itamaraca Island	03-06 Jun
						SA-046 PY7XC/P	Itamaraca Island	03-06 Jun
						SA-046 PY7ZZ/7	Itamaraca Island	05-06 Jun
						SA-046 PT7WA/PY7	Itamaraca Island	03-06 Jun
						SA-047 PR59B	Mel Island	04-06 Jun



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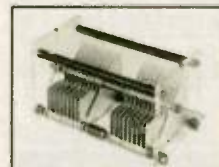
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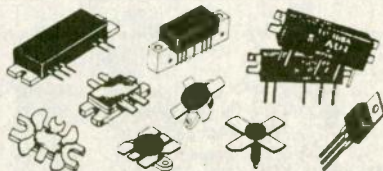
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cut short after a few hours of operation on 16 June by the local military forces. This would have been a new IOTA island group had the operation been allowed to continue. Evidently, the group had failed to gain permission prior to their trip to the island.

CEPT

The U.S. is now part of CEPT, European Conference of Postal and Telecommunications Administration. This means that you can now operate your radio in other countries just as you have done crossing the border into Canada. However, holders of a Novice class ticket cannot. And, those of you with Technician class tickets will be restricted to VHF and above.

All that is required to operate in member countries will be your original license document and proof of citizenship such as your passport.

New Orleans International DX Convention

Don't forget the New Orleans International DX Convention near the end of August. It's too late for advance registration. However, if you are interested give Mike Mayer, W5ZPA, a quick call at 504/524-2129. This year there will be some Sunday morning activity. Refer to last month's column for further details.

W9DXCC

After you have attended the New Orleans bash you can head to cooler weather up in Rolling Meadows, just west of Chicago. The 47th annual W9DXCC Convention & Banquet will be held on Saturday, 18 September 1999, at the local Holiday Inn. An extensive program is planned for

all attending DXers.

For those of you who choose to arrive on Friday there is a hosted hospitality suite by the Northern Illinois DX Association. Here is your chance to mingle with those mid-western of DXers.

The banquet speaker will be Dave Heil, 5H3US, who has been worked by many of the deserving DXers for a new one. Following the banquet there will be another hospitality suite, this one by the Greater Milwaukee DX Association.

For further information regarding W9DXCC please contact Bill Smith, W9VA, by e-mail at: w9va@aol.com, or you may phone him at 847/945-1564. Or you may bring up the W9DXCC website at <http://www.qth.com/w9dxcc>. Last year the attendance was 180 DXers.

CQ DX Hall of Fame

During the DX Dinner at Dayton, Wayne Mills, N7NG, was announced as the newest member of the CQ DX Hall of Fame. Bob Cox, K3EST, from the CQ Committee, provides the following information regarding the newest member to the DX Hall of Fame.

Wayne Mills was born in October 1942 in Palo Alto, California. He obtained his first license in March, 1953. He was given the callsign KN6ALH. Since then he has held: K6ALH, W7JFG, N7NG, ZLØAFZ, ZLØAFZ/9, 3D2NG, T32BT, HB9/N7NG, OH2/N7NG, ZS/N7NG, V5/N7NG/ZA1A, P4ØNG, P4/N7NG, FOØMWA. In addition, Wayne has operated from 4U1ITU, 4UØITU, P4ØV, FOØXX, 3D2AM, AH3C/KH5J, XF4L, ZS9Z/ZS1, 9MØS, and V51Z. He knows what it's like to be on the DX end of the pileup. Those of us who have worked him in those pileups know that he is one of the best.

Wayne understands both sides of a pileup. He started DXing in 1956, while in Junior High School. For nine years his DXing was limited to 20 Meters CW only. That's because his home built gear didn't operate on any other bands. His school friends, K6ZJU and WA6AUE (now W6EU) were fellow participants in the DX chase. Wayne spent most of the 60s studying electrical engineering at the University of California at Davis, California. He found some time to work the occasional DXpedition. He observed the deeds and misdeeds of the DXpeditioners of the time, and met the major players at meetings of the Northern California DX Club which he joined in 1965. Wayne is still a member of the NCDXC — and the Northern California Contest Club.

It was in 1977 when Wayne applied for and received his present callsign, N7NG. His new business demanded most of his efforts and attention, but he found time for his DX passions. Then in 1983, he saw an advertisement in the *West Coast DX Bulletin* for operators to go to Clipperton

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DX Prediction — September 1999

Island. He thought he might like to do that. Then he thought otherwise and forgot about it. During a Christmas visit to California, Wayne talked to Bob Vallio, W6RGG. Bob asked if Wayne wanted to go to Clipperton. Wayne had thought about this before and immediately answered, "yes." That trip ended in failure in Manzanillo, Mexico. Wayne eventually made it to Clipperton and the FO0XX DXpedition in 1985, and a return visit in 1986. That gave him a taste of "the other end." Wayne wanted more of the same. A trip to Auckland Island (ZL9) with Ron, ZL1AMO, and Roly, ZL1BQD, followed in 1988, and he was invited by Martti Laine, OH2BH to join the Revillagigedo (XF4) group in 1989.

1990 was a big year for Wayne. He made two trips to the Pacific, Jarvis Island (AH3C/KH5J) and Conway Reef (3D2AM). In November he made his way to Africa on the DXpedition to Penguin Island (ZS9Z/1). The next year, 1991, Wayne was nominated by ARRL to be the American representative to the ZA1A education and operation project in Albania. (Since that time Wayne has always kept a bag packed for a quick getaway.) In 1993, he went with the DXpedition to the Spratly Islands (9M0S).

Today, Wayne is a member of the DXCC Number 1 Honor Roll. After he returned home from the teaching and operating project in Tirana, Albania, he worked his last needed country. That was on his birthday in 1991. The last country? Albania, and the station was ZA1A.

In recent years, Wayne has made his mark in contests. He was a part of the group at P40V that set the world record CQ WW SSB Multi-Multi in 1988. In 1990 it was a record Multi-Single. He set the Single Operator 20-meter CW world record in 1991. Wayne says that he enjoys operating in the ARRL CW DX contest from Wyoming, but he considers himself much more of a DXer than a contesteer.

What are Wayne's plans for the future? In his own words, "My wife and I are planning to start sending the kids to college, and will probably be a little more selective when it comes to traveling, but I intend to keep at it for the foreseeable future, especially during the winter months..."

Bob also included a list of Wayne's accomplishments and contributions to the Amateur Radio community. This includes continuous membership in the ARRL since 1952; life membership in the INDEXA; NCDXF; vice president and founder of the JHAARC; Yasme Foundation; and involvement in the Wyoming RACES/ARES for Teton County.

Wayne received his DXCC back in August 1959 (Mixed #4477) and has written numerous articles for QST and other publications.

Maximum usable frequency 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. Smoothed sunspot number = 136. 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	(15)	13	*25	12	*20
10	(21)	*12	*22	19	*19
12	30	*16	*19	*26	*30
14	*34	14	24	*28	*38
16	*36	(13)	21	*27	*42
18	*36	(12)	(18)	*25	*43
20	*34	23	33	*22	*43
22	*28	*27	*40	15	*45
24	*24	26	*44	*13	*37
2	*21	21	*40	*12	*31
4	*19	16	*36	*12	*26
6	17	14	*30	*13	*23

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	(15)	*14	*26	(12)	*22
12	23	*13	*23	20	19
14	31	*17	*19	26	*31
16	34	*16	22	26	*39
18	*35	*20	(18)	24	*43
20	*34	*30	32	19	*44
22	*28	*30	*40	14	*43
24	24	*29	*44	(13)	*41
2	*21	*27	*45	*12	*34
4	*19	*22	*41	*16	*28
6	17	*18	*37	14	*24
8	(16)	*16	*31	13	*21

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	*20	13	*25	*12	*21
9	23	*12	*22	19	*19
11	*37	*17	*19	*26	*30
13	*42	15	25	*28	*36
15	*43	(13)	22	*28	*40
17	*42	(12)	20	*27	*42
19	*37	19	27	*24	*43
21	*31	26	38	16	*43
23	*26	26	*43	*14	*41
1	*23	21	39	*13	*33
3	*19	15	*35	*12	*28
5	*23	14	29	*13	*24

DXpeditions that Wayne participated in include: FO0XX, Clipperton Island (1985 and 1986); ZL0AFZ, Auckland Islands (1986); FO0MWA, French Polynesia (1988); XF4L, Revillagigedo (1989); AH3C/KH5J, Jarvis Island (1990); 3D2AM, Conway Reef (1990); ZS9Z/ZS1, Penguin Island (1990); ZA1A, Albania (1991); 9M0S, Spratly Islands (1993); BV9P, Pratas Island (1995); BT0X, Great Wall, PRChina (1995); XZ1A, Myanmar (1995); BS7H, Scarborough Reef (1997); and H40AA, Temotu Islands (1998). Of these Dxpeditons, Wayne has made many presentations at the DX conventions at Visalia, Dayton, New Orleans and others.

Antique QSL Department

The first QSL card for this month's selection dates back to 1939 when Korea was still a possession of Japan. The call J8CA was assigned to an S. Matsunaga. The card is yellow with dark blue lettering with the call and the word Korea printed in red. The last time this call graced the



pages here was back in May 1981. This card was provided by Dick Mc Kercher, W0MLY, who was operating as W6MLY. We have used several of Dick's cards in this section, including some of his DX calls

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DX World

such as 4W1MY (July 1994), 6L6MY (April 1995), FL8MY (April 1994), and VQ6MY (February 1982). Dick joined Silent Keys on 31 May of this year. Dick, who resided in Iowa, made it a point to attend many of the DX conventions and had remained active chasing DX right up to the end.

ICE ISLAND (T-3). Arctic Ocean

QTH: Variable!

KG1DT

Radio: W2WV - Conference: HHHH QSO to: QCCZ
 On: 25 November 19 57 Dr. B.S. 3. 2.1. From: 14, 282. Mes.
 Xciti: KW5-1 7. DC40. Dr. v. TA 4. Y. 613
 Ant: Rhombic, X-Beam, Doublet. My QTH: 30. N. Lat. 112. W. Long
 Inv: To qoc Ralph and lise meet up with you gen. Post 73's
 J. N. Closson
 P.O. Box 210
 P.O. Box 210

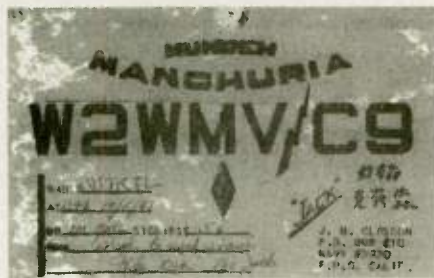
The second card is not quite as old and dates back to 1957. Provided by Wayne Lott, K4WJB, the call KG1DT was for a station located on a floating ice island in the Arctic Ocean. An interesting narrative is included with the card and says; "Ice Island T-3 is a large piece of very thick ice drifting in the Arctic Ocean. Its dimensions are about 10 miles long and 1-1/2 miles wide. The island is about 140 to 160 feet thick. It has been forming in the Arctic Ocean for a thousand years or so, probably as part of a much larger ice 'shelf' which extends out to sea north of Canada's Ellesmere Island. It broke off and became a floating island perhaps as recently as 1935.

"Since the island was positively identified in 1950, it has traveled a predictable course as it drifts with the ocean current, traveling in a clockwise direction around the Arctic Ocean at an average speed of 1.2 miles per day. The island was first occupied by Col. Joseph Fletcher, USAF, in March 1952 and thus derives its original name, 'Fletcher's Island'.

"The USAF has established and will maintain a scientific station on T-3 for a period of 18 months beginning 01 June

1957. The station complement of 20 persons will include 10 Air Force Support personnel and 10 scientists from the National Academy of Sciences, the Air Force Cambridge Research Center, and the U.S. Weather Bureau."

Wayne said that the card comes from the estate of Ralph Brewster, W4ECE. The card is light blue with green printing and the call letters in red. The prefix at that time was used by U.S. forces in Greenland, if I am correct. However, this one looks more like Canadian ice!



The third card comes from the collection of Earl Ringle, N7ER. Earl worked W2WV/C9 in Manchuria way back in 1947 and was operating as W7KTL. The operator was Jack Closson. In September 1963 Manchuria was added to the Deleted Countries List. As for Jack he evidently is no longer with us.

QSL information

Bill Fikis, W2AY, reports the the W2 Incoming QSL Bureau has about 500 cards for VE2QRZ (QSL manager WB2K) and about 2,500 cards for ZD7HI and ZD7OK (QSL manager WA2JUN). These

two managers are not accepting cards via the bureau. If you are looking for a card from these DX stations it is suggested that you send an SASE to these managers directly.

The Canadian bureau also has several hundred cards for VE2QRZ and is also being refused by the QSL manager, who also may now be a Silent Key.

There are many calls listed in QSL Routes that say "Direct only." This means do not send cards via the bureau system. Alan Roocroft, VK4AAR, is listed as a manager for several of these stations, and requests cards be sent direct. Be sure to check his address listed in the QSL Routes.

Thanks go to the following contributors for this month's column: F5NZO, ZL2HU, W2AY, K3ZO, WA4IUM, K4WJB, W5FKX, N7ER, N7NZ, W9VA, W0MLY, Western Washington DX Club (WA0RJY), Northern Arizona DX Association (W7YS), Mile Hi DX Association (WM0G), American Radio Relay League (NC1L), WebCluster (OH2AQ), 425 DX News (I1JQJ), The OPDX Bulletin (KB8NW), DX-News (NJDXA), The Low Band Monitor (K0CS), The Daily DX (W3UR), QRZ DX (N4AA), and DX News Sheet (G4BUE).

While browsing through one of the clusters on the Internet Sunday near the end of Field Day I noticed many postings of calls. Isn't this really carrying contesting to the ridiculous? There are no multipliers in this event so what's the point? During the period I was on, there sure wasn't a shortage of calls to be worked. I hope your club had a fine time and worked WR6WR. 73 de John N6JM.

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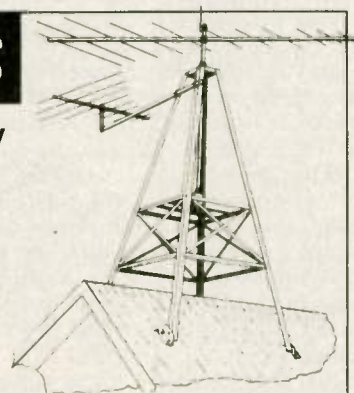


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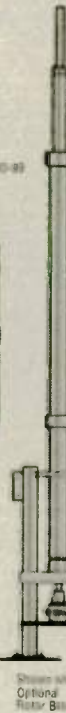
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MARS & NTS — hand-in-hand partners

Six years ago, I had the pleasure and honor to meet Chief Army MARS, Robert Sutton at the Huntsville Hamfest for the express purpose of accepting his offer of serving as Public Relations Coordinator for Army MARS. I also had the pleasure and honor of meeting the editors and publishers of *Worldradio*. While talking to them, it was determined that Army MARS would have a regular column on the assumption that I was able to write satisfactory copy.

During those six years, there have been profound changes in Army MARS and profound changes in *Worldradio*.

My first *Worldradio* column featured the third annual Army MARS sponsorship of Operation: Holidays.

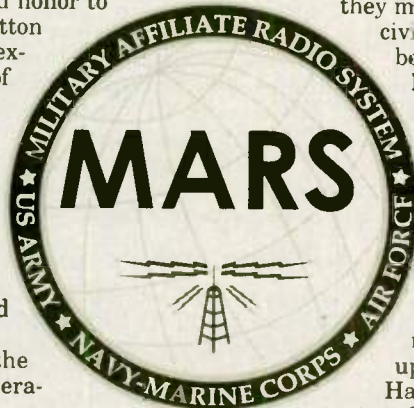
The 1999 Operation: Holidays will be the ninth annual sponsorship of the event. As I wrote in that early column, Operation: Holidays is an annual event in which the cooperation of all the MARS services and the Amateur community is paramount in the attempt to generate a number of benefits. The most obvious benefit is for the military personnel of this great country and their loved ones. In the program, the public is invited to send holiday greetings via Amateur radio and via MARS to military personnel. In this way, the non-radio public can become acquainted with the fine services that are available to them in both the Amateur community and in the MARS communities. The increase in traffic helps both communities fine-tune their emergency procedures and skills. This is an area in which the general public should also be interested since these services are often needed in their own back yards.

MARS and NTS (National Traffic System) have earned their fine reputations for being top-notch message services. Only by continuing to handle message traffic can these reputations be sustained and expanded. Only an informed public can generate the message traffic needed to keep traffic handling skills at optimum levels — skills that are highly developed for use in times of public emergency or disaster needs. The lure of e-mail and other modes is very strong, but these systems can and do fail. Radio waves do not!

An ultimate goal of the program is to have the non-radio public develop such familiarity with the two traffic systems that sending radiograms becomes an ingrained natural habit for people everywhere. The promotion urges all Amateurs and MARS members to promote the idea of having the public send radiograms (civilian-to-civilian) and MARSgrams (military-to-civilian-to-military) to supplement the sending of greeting cards and other messages.

Only an informed public, using the services available to them, will realize that Amateur Radio is an important national asset. Only an informed public can help to protect the Amateur bands from being usurped by other users. Only an informed public can influence legislators and regulators in our favor.

Much of the general public does not know that either MARS or NTS exists. Operation: Holidays gives all of us in Amateur Radio an opportunity to let people know that both services are free, reliable, and available at all times — not just during special seasons. We have the opportunity to generate good will throughout the communities in which we live. The opportunity lies in offering people everywhere an opportunity to send radiograms to their loved ones wherever



they may be. If the sender and the addressee are both civilian, NTS will handle the messages. If either or both the sender and the addressee are military, MARS will handle the messages. Messages intended for a military addressee can originate with the NTS system and be refiled into the MARS system at a later point.

Only you in the Amateur community and as MARS members can inform the public. The public does not know how to reach you. Act NOW! Get your radio clubs involved. Write letters to the editors of your local newspapers. Contact local radio and TV stations for spot announcements. Submit news items. Put posters up. Talk to your family, friends and neighbors.

Have you sent a radiogram lately? Have you ever sent one? Why not? It's an excellent way to keep in touch with friends or family members who are far away. All you need for sending a message to a particular person is a complete address and a maximum of 50 words. Army MARS introduced its new "To any servicemember" program for the 1998 Operation: Holidays campaign. This program, like all the others, is available year round. Messages going to addressees in the U.S. should have a telephone number. Most people are surprised at how much can be said in 50 words. Send a radiogram today. You will enjoy it and your recipient will enjoy it as well.

Many other programs and challenges were discussed during the past six years and I will address them in future articles as they pertain to current happenings. I choose to concentrate on Operation: Holidays in this column since my next column will not appear until December — well into the holiday season.

Meanwhile, I am very pleased to be part of the *Worldradio* family as I represent the Army MARS family.

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It's not a matter of "free speech"

The days of so-called "Free Speech" repeaters, those where "anything goes," including unlicensed people using them, or the utterance of "foul language" over the airwaves is very, very quickly coming to an end. Those who are attempting to challenge this are finding out, usually the hard way, that the FCC, through its Chief Legal Advisor Riley Hollingsworth, K4ZDH, means business.

Just this morning my fax machine "runneth over" with news of four more retest orders and two more unilateral license cancellations against amateurs who refused retests. I expect to hear more actions by week's end. They are even going after the heretofore untouchable Glenn Baxter, K1MAN, who has what he terms as a "radio talk show" on 20 and 75 Meters. The FCC unsuccessfully attempted an inspection of his station on Friday 14 May.

But getting back to VHF and UHF. My advice to those who run so-called "Free Repeaters" or "Free Speech Repeaters," and even moreso to their users, is that unless you have a couple hundred thousand dollars to spend on lawyers and court costs to challenge the government, you had better begin acting as decent and respectable human beings. I think it's clear that the government will not tolerate anything less.

And to those who think that they can get the ACLU or some other civil rights advocacy organization to fight their case for them, think again. We talked with several of these organizations in preparing our news reports. All believe that the FCC is well within its jurisdiction because, as the agency itself has pointed out, when you accept an Amateur Radio license grant you give up certain rights and agree to abide by the agency's rules and regulations as outlined in Part 97. This is a long-established precedent (over 85 years worth of precedent) and the civil rights people are not about to waste time and money on a cause that they already know is futile just so some wayward Hams can say dirty words over a repeater.

The civil advocacy groups are not going to side with the way-out bunch, so for these people its either use your life savings to fight to continue as a radical or accept the fact that the fifteen-year party of "do your own thing" is over. Trust me when I tell you that it's over.

Do any of you have a quarter to a half million dollars lying around in the bank to mount a challenge to the government? And even if you do, what does it get you in the end? Those are the real questions.

No freedom is absolute. Even free

speech advocates admit one cannot yell "fire" in a crowded theater. I think Amateur Radio in general and repeaters in particular had forgotten this but they are being forced to learn it once again.

And the FCC's Hollingsworth says: "Just because you have the right to do something doesn't mean it's right to do it."

Japan to South Dakota on 6M

It may or may not be a new record, but two amateurs in one of the most sought after gridsquares in the U.S. have worked Japan on 6 Meters.

The Grid Square in question is EN13LM. It's located in Parker South Dakota and is the station location of Arliss Thompson, W7XU, and his wife Holly, N0QJM. And it was at about 0245UTC on 19 June that their odyssey of several trans-Pacific contacts began.

As Arliss reported over the W6YX VHF Reflector, he heard the KL7FZ 6-meter beacon in Alaska. This indicated that the band was open to the West so he called CQ on 50.110 MHz. Almost immediately he was answered by JA4MBM and they exchanged 5 by 3 reports. W7XU says he continued to hear bursts from other Japanese stations including JH6VXP, but it was not until 0005UTC that he contacted JH6NKZ. At that point JA4MBM was only a readability 3 and a signal strength 3, but was still copyable.

But the contacts did not end there. Arliss says that Holly also worked JH6NKZ at 0008UTC and JA4MBM at 0015UTC. By the time Holly contacted JA4MBM, he was up to signal strength 5 by 4. This was the strongest signal heard from Japan at any point during the opening and also the last JA signal heard by Arliss and Holly.

Arliss says that while he has worked

Europe on 6 Meters, this is the first time he has contacted Japan on the "magic band." He says that at about 6,000 miles, it's close to 2,000 miles more distant than Europe from his South Dakota QTH.

6-meter bandplan in Europe

The 6-meter bandplan for Europe differs markedly from that of what we are used to here in the U.S. Thanks to Marttin Harrison, G3USF, for thoughtfully posting the European 6-meter plan to the VHF Reflector, we can provide you with the information on who in Europe is where on the 50 MHz band.

50.000-50.100 - CW only with 50020-50.080 beacons and 50090 CW calling
 50.100-50.205 - CW/SSB only with 50.110 intercontinental calling and 50.100-50.130 intercontinental working
 50.150 SSB 'center of activity'
 50.185 crossband 'center of activity'
 50.200 MS reference frequency
 50.500-52.000 all modes with various spot frequencies for SSTV, RTTY, digimodes, repeaters, emergency operations. Mostly FM, in practice.

Martin adds that some countries do not have the full 2MHz (the maximum segment in Region 1) and so have to operate to modified versions of the above. The convention of international calling/working frequencies is frequently broken. As far as he knows, observance is voluntary throughout Region 1.

2 on 6

With 6 Meters becoming more popular, many amateurs are finding out that some 2-meter mobile vertical antennas make fine 6-meter "sticks." Unfortunately, some do not realize that not every 2-meter antenna works on 6. They go out and buy the wrong one and then complain bitterly when it does not work.

The truth be known, the only 2-meter antenna will work on 6 is the 5/8th wave 2-meter monoband type. This is because a 5/8 wave physical length is electrically lengthed to 3/4 wave by the ungrounded series base coil. When it sees a 6-meter signal it 'thinks' it is an electrically shortened 1/4 wave antenna (again psysically shortened by the base coil) and radiates accordingly.

There is one caveat. Only ungrounded 5/8 wave 2-meter antennas like the Larsen will work on 6 Meters. As noted, these are antennas that electrically shorten the length using an ungrounded series coil. Shuntfed (electrically grounded) antennas like my beloved Antenna Specialists ASPS-177 will not work. This is because

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FM, Repeaters & VHF

their matching system is a 146 MHz tapped transformer and 6-meter energy gets shorted to ground.

What about those very popular dualband 2-meter/70-cm antennas? Sorry, but these will not work on 6 Meters because the UHF side is two 1/4 waves in phase. The result is a 1/2 wave total length on 2 Meters. It works well at 146 MHz but that is not a good match on 6 Meters. (Thanks to Chris Boone, WB5ITT, for assistance with this item)

Spectrum refarming on the VHF and UHF bands

Will there ever be 7.5 kHz repeater channels on 2 Meters? Will Southern California's SCRRBA wind up the nations only coordinator to adopt 20 kHz inter-system spacing in the 70 cm repeater subband? There is no way to know what the future holds in store, but a recent posting from John Hackman, WB4VVA, on the Repeater Owners Remailer (repeater@onelist.com) may hold an inkling of what the future may have in store.

He says type acceptance for VHF and UHF radios for U.S. commercial service now requires that the units be capable of narrow-band (12.5 kHz channels at UHF, 7.5 kHz at VHF) operation by the change of a jumper or similar device.

John says the FCC has implemented a large part of the "narrowbanding" at UHF by rules now in effect. He also adds that there is a petition from AMTA pending (current status — comment and reply comment periods closed on a Notice of Inquiry) requesting the setting of a firm date for implementation of mandatory change to pure narrow-band technology.

So, there's something in the pipeline and a forced change may be on its way to the commercial world. Eventually it will impact on Amateur Radio. Change like this always has in the past.

Meanwhile, Burt Lang, VE2BMQ, notes over the same remailer Canadian radio authorities have the necessary regulations and plans in place to switch the UHF commercial bands (406-430, 450-470) to 12.5 kHz channeling effective the year 2004. It is also rumored that the VHF commercial bands would be "refarmed" at that time.

Beacons — we got beacons

Has anyone given any thought to the fact that there are nearly 9,000 "beacons" on the air in the U.S. every day? We have another name for them. We call them repeaters and they operate higher in frequency than does weak signal on any band.

Here's how to use them. Suppose you are a resident of "W3." If you tune to an unoccupied repeater frequency in and suddenly hear a group of "W7s" breaking

quelch, it's a pretty good bet that the band you are listening on is "open."

This even works on 2 Meters in Southern California, if you live in an area surrounded by hills and many local repeaters are inaudible. In most regions, it will work on any band with 6 Meters and 222 MHz being prime candidates. Even 2 Meters has its possibilities. Give it a try.

The best repeater in town


Al Crane, KD4EMP, wants to let you guys know they have a new 440 repeater up on Poor Mountain in Roanoke, Virginia. It's linked back into the RRN system in Virginia, North Carolina and West Virginia. It's on 444.325 MHz and uses a CTCSS access tone of 103.5 Hz.

"It is working great," says Al. "I have worked it mobile to Appomattox, and Danville." Al adds that there is a net every Saturday night at 8 p.m. local time. He says, "Give it a try if you wish, spread the word."

Thank you Al. We have.

— *Bill Pasternak, WA6ITF, can be reached at: 28197 Robin Ave., Saugus, CA 91350, e-mail: billwa6itf@aol.com, AOL: BILLWA6ITF, Netcom: news line@ix.netcom.com, 24-hr voice/fax: 805/296-7180, e-mail only up to 50 kilobytes can also be sent to wa6itf@juno.com.*

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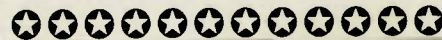
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If you were to look back, perhaps 10 years, you might be surprised at how your interests have changed or your "free time" focus has shifted. I found a presentation I'd done many years ago concerning radio procedures and it was shocking at how liberal I've become. As I read through my speaker notes I was both amused and embarrassed at what I had the audacity to stand in front of an audience and say. In my own defense, however, it was a time that we perhaps feared the FCC and peer pressure and made it our primary job to "nit pick" our procedures and our paperwork.

It was also a time that frequency agile radios didn't exist for a volunteer's budget and also a time we were overly impressed with our newfound repeater coverage. I was also much younger and held beliefs then that I could leap tall buildings and outrun speeding trains — among other skills. So where has your focus changed in the past 10 or 20 years? I know that I'm less apt to panic and less prone to get upset at criticism. Some would say youthful enthusiasm has been replaced with experience and wisdom, but that implies I don't find life exciting or that I've experienced it all, which isn't true either.

When a life is in danger during a search mission, the urgency is still there, and although my response might be tempered by experience, the situation is often unique causing me to consider how best to react. While I don't spend as much time trying to reinvent "wheels" I spend more time improving on the gadgets I have collected over the years, making them work better, easier, more efficient, etc.

I would encourage you to remember that our motivations and interests change, and that's OK. Before we are quick to draw conclusions, it's a good idea to reflect on where we've come and remember how we got where we are today. There have been a number of patient veterans that have helped me along the way and had the wisdom to allow me to grow and develop my unique interests and talents at my own pace. I discover now it's important for me to listen, to observe, to encourage, and often to simply lend support in person as others stretch their wings and grow.

Even though you don't perhaps have the drive to be on the front lines, if you've been around the block a few times, remember that others look to you as an example and for encouragement in their efforts. There are too few "elmers" in Amateur Radio. Take the time to encourage youth and youthful excitement!

A portable EOC

An article in the July 1999 issue of *CQ VHF* caught my eye with the description of a portable EOC. The article describes and has photos of N3ZZR's "EOC on-the-run" package. In past columns I've described a number of response kits, but I've not considered a complete grab-and-go EOC — and I like this concept.

The N3ZZR box is basically a portable fiber case packed with radio gear including a 40-amp power supply. It contains a number of scanners, a lap-top computer, video capability, packet, VHF, UHF, and low band transceivers, various ID badges and vests. It's quite a collection of gear and a concept I'm going to explore for my own preparedness materials.

Many ideas I've explored in past columns are designed to trigger thoughts and action on your part and I would emphasize that the goal is not to have you rush out and duplicate what is described. Every situation is unique and what you might put in a portable EOC differs from what N3ZZR has. From my perspective, the N3ZZR box is heavy on a large number of gadgets and light on simplicity —

although there is no rule against turning stuff off and using only what's needed!

Buried in my storage shed is an old fiber shipping box (about 30 inches high and wide and about 18 inches deep) that I think might be a great candidate for an EOC station. I would open the box sideways and have some type of a fold-down desk surface. I'd need some stabilizing "legs" of some sort to keep it from tipping over, but that's the challenge — making it work and then improving upon the design. Beyond a power supply and a VHF and UHF rig, I think I'd add a TNC for packet, an old laptop, and maybe a sturdy gell-cell for immediate operational ability in case there is no commercial power readily available.

Some additional needs would include administrative supplies, a flashlight, and perhaps a gooseneck lamp to shed light on the operating surface. I'm not sure I'd include a bunch of scanners or video equipment for an EOC station, but I can see the need for a broadcast receiver, a headset with boom microphone, and the ability to route power to additional devices as the need develops.

I may have suggested in earlier columns that a Boy Scout portable kitchen would make a great operating location as well. These camp kitchen designs are readily available from most Scout troops and would take a weekend of carpentry effort to build one. If I were operating in the field (no buildings, no tables, no formal shelter, etc.) the camp kitchen would be ideal. In recent years, my need has been to operate from some type of facility such as a fire station, church, or home and it makes better sense for me to build the fiber-box EOC.

I'd love to hear what you're using for field operations. If you've got pictures or suggestions please forward them and I'll share your ideas.

Portable antenna kit

In a communications trade magazine I caught an advertisement for a portable field antenna kit. The company claims this is perfect for rapid deployment, especially in buildings or remote areas. The picture shows a box with mast sections and a ground plane antenna. The kit includes coax cable and perhaps a tripod adapter so you could put this into a free-standing setup.

As I looked over the specifications, my first thought was that this product came from an Amateur Radio-tested idea. Someone at this company was bright enough to realize that public service agencies would be willing to spend serious money for such a product. I lament that we (Amateur Radio) don't often market ourselves in the full-color trade publications and that public service agencies are often willing to buy commercial gear and ignore custom-made gear that local volunteers could adequately provide.

The kit looks easy to use and is packaged in a rugged case. My worry would be the technical expertise needed to troubleshoot problems with such a product. Seldom do agencies have people available to quickly diagnose and correct problems and such a product implies immediate need with minimal down time. While you might not convince an agency you could provide such a neatly packaged item, you could work with them to provide the technical skills to put such a device into operation and maintain it.

A reader writes

I received e-mail from a reader concerning the July 1999 column with regard to the police-wannabe mentality. This reader correctly points out that some times it is not the individual who has this attitude, but the collective group itself. She points out that in her area there are groups having a strict hierarchy existing seemingly

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Search And Rescue

to protect a "self-serving power structure." It's this reader's view that these groups are led by "retired older men who were once management or supervisory and miss the power rush."

She points out that these types of leaders might be more common than I might realize, and I agree. The reader said to check the demographics of the hobby and specifically look at composition among club administration — "you'll see they generally are not very inviting to women and young people." As this reader checked out groups in her local area, the perception was that to be accepted, her role would be as an "ignorant young person," or "as someone's spouse" content to be led around as the club officials did with their own spouses.

The story has a happy ending as this reader found a college club with members who were team oriented and whose "emergency communication prowess is outstanding." This reader is correct. Sometimes it is the group's leadership that drives away members and past columns have encouraged leaders not to drive away members because of tradition or narrow views. I'm aware of operators who have banded together to "steal the show," creating innovative, responsive groups that handle public service needs. These groups often cause the "good old boy network" groups' demise or cause enough concern that they change their policies.

I remember such a group in central Wyoming in the 1960s. It was a tough group to get into and it was led by one or two souls whose only goal was to preserve their roles as president and vice-president — and that's how it had been for years and years. A number of us youngsters got together and formed our own group, immediately catching the attention of the sheriff and civil defense director. Both agencies put us to use and the group grew at the expense of the other club. It was not our purpose to bury them, but it was a natural outcome because of the difference in how each group's leadership treated its membership.

Competition is often a good thing, if only to cause an established group to reconsider its purpose and organization.

The D-104 perception

I finally obtained an old Astatic D-104 microphone! I've seen them in shacks for years and never had the desire for one until someone visiting my shack asked where my microphone was. I showed him my desk console, my headsets, and the hand microphones, but that just didn't do.

He described the "lollipop" style microphone and said that every ham shack he'd ever visited had one. Perhaps he'd only visited one or two other stations, but that microphone and a Morse code key were what convinced him he was in a real "shack."

I've got an old key but the D-104 was lacking. No more. I'm now an official shack as the lollipop microphone sits on the shelf next to the code key. The microphone isn't connected (neither is the telegraph key) but it's in plain sight, giving into the perception of what a valid Amateur Radio operator requires.

Isn't it odd what some perceive to be hallmarks of our hobby? Glowing tubes, telegraph key, lollipop microphone, static noise, wires, boxes full of meters and electrical goodies — all are often associated with Amateur Radio. Maybe it's a good thing to have such a heritage. After all, we have a rich history and we've a reputation for fixing "stuff" and doing wondrous, magical things with these odds and ends.

Even though I've got a modern shack, it gives me some pleasure now when someone comes in and immediately notices the microphone and says: "You're a Ham Radio operator!" (As if the wall full of radio gear wasn't obvious.) Until next month, best wishes from Salt Lake City! — *Jerry Wellman, W7SAR, can be reached at: P.O. Box 11445, Salt Lake City, UT 84147 or via e-mail: jw@desnews.com*

Aerials

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1999 MARAC National Convention wrap-up

This year's convention was held in Post Falls, Idaho and from all the reports I read on the internet, this may have been the best convention ever. Certainly the folks who posted notes on the county hunter forum had lots of accolades for the convention organizers.

This convention is where MARAC gives their annual awards, primarily recognizing mobile operators, net controls and the county hunters of the year. But before I share that with you, MARAC also gave a couple custodian awards. These awards are given to recognize sustained service to MARAC.

Bill Moore, K7IOO, received a custodian award in appreciation for his many services to the MARAC Awards Custodian. Joyce Boothe, WB9NUL, received the other custodian award in appreciation for her many services to the MARAC Awards Custodian, for her work as Liaison to the MARAC Board Of Directors, and as a Friend and Advisor.

Here are the operators recognized at the banquet. Ken Carpenter, KC4UG, received the Mike Mutnick Memorial Award, otherwise known as the CW Mobile of the Year. Ken also received the SSB Mobile of the Year. Chances are if you operated on either the CW or SSB county hunter nets, Ken gave you a few counties this past year.

Arden H. Fonda, AAØIP, was the recipient of the Paul Edmonds Memorial Award, otherwise known as the CW Net Control of the Year. Jim Grandinetti, KZ2P, was the recipient of the SSB Net Control of the Year. Arden and Jim spent countless hours on the nets controlling a smooth flow of mobile operations. They strive to

help the mobiles maximize their contacts while giving to the mobile operators a fair chance to 'run' their counties on the nets.

Col. Rick Harris, AI5P, received honors as this year's CW County Hunter of the Year. Ken Carpenter, KC4UG walked away with one more honor, the SSB County Hunter of the Year award.

There were also some prizes awarded. Gail Inkrote, WB2AXG, won the grand prize; an IC756 transceiver. Her husband Bill, K2NJ, hopes she'll share it with him. Kent Reinke, KL1V, won a mobile amplifier — expect to hear him a little louder in the near future. Dennis Hall, KK7X, won the early bird award; an IC706MKII mobile transceiver. Hey, didn't Dennis sponsor the early bird barbecue at his house? Things that make you go "hmmm?"

Did you miss this year's convention? Then make an effort to not miss the 2000 MARAC Convention being held in Michigan. If you miss that one, then plan to join me in attending the 2001 convention in Virginia. I'm looking forward to Virginia, my home state. I've only attended one MARAC National convention in 21 years of county hunting.

USAPA

What is it you ask? Well, do a search on the internet for USAPA and you'll find the United States of America Pickleball Association. I'm sure you know this already, but just in case you don't, Pickleball is a simple paddle game, played with a special perforated slow-moving ball (like a whiffle ball) over a tennis type-net, on a badminton-sized court. And no, I'm not making this up.

Obviously, this USAPA is not the

USAPA I need to tell you about. You see USAPA also stands for the USA Prefix Award. I know what you're thinking, "CQ Magazine already has the Worked All Prefix (WPX) award and you can get an endorsement for American prefixes." No, no, no!!! USAPA is so much different.

The USA Prefix Award is a newly sponsored award from KWIKLOG PLUS. KWIKLOG PLUS is the premier county hunting software programmed by a county hunter, Clarence "Willis" Willis, KJ4EJ. USAPA is yet one more county hunting award to give an additional challenge to those county hunters who just can't seem to kick the county hunting habit. This allows county hunters to chase counties multiple times, on CW, with YLs, with 10-10 numbers and now prefixes.

Willis says USAPA will be earned for working all counties with a single USA allocated prefix (e.g. A,K,N, or W). There will be incremental endorsements and numbers for each prefix completed. There is no start date, so you can go back to your very first amateur contact. Even better, no confirmations will be required; however, log data may be requested for verification by the sponsor.

So, blow the dust off those old station log books and see where you stand. Willis suspects that some county hunters may have already worked all counties with a K and W prefix. Willis looked at his old logs and found he already had 2,441 K-prefix counties and 2,163 W-prefix counties.

I know what you're thinking, "What's next? What will these county hunters think of next?" Got any ideas? What other ways could we collect counties?

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The Native American Counties Award

I'll just snap my fingers and voila, here's an idea. Duane Traver, WV2B, developed the Native American Counties Award. Some of you may already be aware of this, but just in case you're not, 418 counties are named for Native Americans (that's 14% of the 3,076 counties we collect). Native Americans have had a great influence in regard to place names in the U.S. and county names are no exception.

In Duane's words, "We county hunters develop an insatiable curiosity for anything having to do with the U.S. counties. By the time we contact all the counties we usually know about where each county is located, which counties are rare, and why." It's Duane's hope that his award program will satisfy not only the county hunter's curiosity about the counties, but will satisfy their need for a challenging operating achievement.

My hat is off to Duane for carefully researching each county to determine if it was named for a Native American, but I don't see the challenge. Anyone who contacts all 3,076 counties (now 975 amateurs) automatically qualifies for the award. If we really want to make it challenging, we should require that all the

contacts be made with a mobile operator of Native American descent. Now that would be a challenge!

NACA Rules: Contact all 418 of the U.S. counties, the names of which are inspired by Native American subjects. A list will be posted on Duane's web site at: (www.geocities.com/heartland/pines/7651) soon. Confirmations are not required for this award and the award can be endorsed to reflect any operating accomplishments: CW, SSB, single band, all mobiles, etc.

CH Honor Roll!

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"Bingo"

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CA QSO Party

I've been kicking a half-dead horse for some time now about operating in contests to find needed counties. The California QSO Party (CQP) is one of those excellent opportunities to collect new counties. The CQP organizers, the Northern California Contest Club (NCCC), make a concerted effort every year to ensure all 58 counties are on the air for their contest. Mark your calendar for 1600UTC 02 October - 2200UTC 03 October and look for California stations on CW on 1.805 and 40 kHz up from band edge and on SSB on 1.815, 3.850, 7.230, 14.250, 21.300, and 28.450 MHz. Try CW on the half hour; 160 Meters at 0500UTC; 80/75 Meters at 0300 and 0700 UTC. For more information on the contest, look on the web at <http://www.cqp.org/>.

For a CQP paperwork package containing log and summary sheets, county abbreviations, and contest records, send a business size SASE to Andy Faber, AE6Y, 16321 Ridgcrest Avenue, Monte Sereno, CA 95030. For a copy of the two member-supported IBM contest logging programs for CQP, send \$1 for postage and diskette to AE6Y. Good luck finding those elusive California counties in CQP.

Je suis fini!

Until November, keep those cards and letters coming (by the way, thanks Dad!). May your logs be filled with many new counties. Happy hunting! 73, Ace N3 aha!
— Ace Jansen, N3AHA, 42857 Hollywood Park Places, Ashburn, VA 20147; email: jansens@tidal.wave.com.

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Meeting programs

Your participation in an Amateur Radio club can go a long way toward bringing this wonderful hobby to the attention of others. Clubs are a showcase of how we enjoy all that this hobby offers.

Allan Rosewarne, N9SQT, expressed a positive attitude in *The Radio Hill Gazette* about why the **Schaumburg Amateur Radio Club** exists. As president, Rosewarne sees the club as a group of individuals who promote and enjoy Amateur Radio. He points out that a member can be anyone who subscribes to those two ideas. A member doesn't need a license, a transceiver, or an HT, and can be either gender and any age.

We often think of promoting our hobby to governmental and community officials. Allan points out that promotion can also entail getting others interested in Amateur Radio and says that each Ham is an ambassador of Amateur Radio. As such, each of us can be instrumental in bringing others into the hobby. He asks, "Is anyone licensed because of me?"

On the subject of enjoyment, Allan says it's anything we want it to be. For some, it will be going to hamfests and looking at all the "stuff"; others it's talking on the local repeater; and some like to build their own equipment. Enjoyment can be having a rig with all the "gee-jaw" the radio manufacturers can throw at us. Some want to work DX, some want to be DX, and others could care less about DX.

Allan concluded his "Message from the President" column by encouraging everyone to get involved and be positive, since no one can expect to get out anything more that he or she is willing to put into it. "Most of all, we should all be having some fun!"

Another positive outlook on the value of Amateur Radio and participation in club activities comes from "DVZ's Dits and Bits" as written by Tim Garrity, WD9DZV. Tim is editor of *Squelch Tale*, published by the **Chicago FM Club**.

Garrity took time in his column to pause and reflect on what Amateur Radio really means to each of us on a personal level; saying that everyone becomes a Ham for a different reason. "As individuals, we each seek something different from it." He then quoted Charlie Cotterman, KA8OQF, as saying, "It's not what a person gets out of Amateur Radio that is as important as what he or she puts back in."

Tim concluded his thoughts with "When someone talks about what this hobby is worth, just remember it is only worth what you put in it."

One of the most interesting program announcements I've read recently was for a presentation on contesting by Scott Robbins, W4PA, at a **Radio Amateur Club of Knoxville** meeting. The notice appeared in *Rack Panels* and promised great information for DXing in general for those who have never contested. Scott's credentials include five top ten Sweepstakes finishes in 17 years of active contesting as well as numerous other awards.

Scott's topic included operating efficiency, station layout considerations, operating tips, knowing propagation and how it helps your score, and questions from the audience.

The marriage of Amateur Radio to computers certainly brought changes to the way Hams pursue their hobby. The **Lake Erie Amateur Radio Association** recently scheduled Dale Reed, W8ABZ, to show its members how to have their radios and computers work together in some fun and interesting ways. Reed's program was about RTTY, SSTV, satellites, and more.

Dale showed how the latest Digital Signal Processing techniques can let a PC with a sound card beat that old RTTY TU; how e-mail and graphics can show when and where the Amateur Radio satellites are and steer an antenna toward it; and how to send a QSL card with a picture on it without using cards, envelopes, stamps, or anything but a radio and computer. He also offered a tip on how to double one's Field Day QSO score.

Looking for something different for a meeting? The **L'Anse Creuse Amateur Radio Club** offered a talk on the National Electrical Code (NEC) and how it relates to Amateur Radio. (Yes, there actually is a section in the NEC which covers Amateur Radio.) The code is what your city or county building inspectors use when inspecting the installation or modification of electrical wiring in your home.

The **Radio Association of Western New York** each year invites the scouting community to its Youth Night, a jam packed display of Amateur Radio. This activity is an excellent way to introduce scouts and other youth to the wide variety of activities available in the Amateur Radio hobby. Their program covered the aspects of getting licensed as well as requirements of the radio and electronics merit badges.

The 1999 Youth Night included such facets of Amateur Radio as CW and HF operation, packet radio, DXing, traffic handling, operating portable and mobile, repeaters, and fox hunting. In addition they showcased satellite communications, QRP, SSTV and ATV.

Another youth-oriented activity worth mentioning is that conducted by the **Blossomland Amateur Radio Association**. In answer to a request to help Webelos Cub Scouts earn their Communicator Badge, club members put together a demonstration for the boys. Each Cub built his own practice key using strips of sheet metal cut from a can, a nail, a buzzer, a battery, and some wire. The amateurs introduced the scouts to the Morse code. They then used their newly-built keys to send and receive code.

The boys even had an opportunity to listen to an on-the-air code practice session. With their short introduction to the code, a few kids could pick out some letters. — *Mike Flaherty, WA6UBW, can be reached at: P.O. Box 189490, Sacramento, CA 95818-9490*



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ARIZONA

Arizona Repeater Association. P.O. Box 35756, Phoenix, AZ 85069-5758. Operates 20 VHF & UHF rpters. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., APS Shure Building, 2124 W. Cheryl, Phoenix, AZ. Info: www.goodnet.com/indirect/www/ara 12/99

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. 5/00

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). 2/00

CALIFORNIA

Amador County Amateur Radio Club. P.O. Box 1094, Pine Grove, CA 95665. Meets 1st Thurs./monthly, 7:30 p.m., Jackson Sr. Cntr., 229 New York Ranch Rd., Jackson, CA. Info: call 146.835(-). 5/00

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 10/99

Coachella Valley ARC. Box 11092, Palm Desert, CA 92255-1092. Meets 2nd Wed./monthly, 6:30 p.m., Portola Com. Cntr., 45480 Portola, Palm Desert. Info: Bill Dews, (760) 346-8611. Net Thurs. 7 p.m. 146.025(+) PL 107.2. 5/00

Contra Costa Communications Club, Inc., WD6EZR/R. P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 07:30, Baker's Square Rest. in Richmond, CA. Info: Stan Clark, KB6SEI, (510) 724-0158. 2/00

Downey Amateur Radio Club Inc., W6TOI. Meets 1st Thurs./monthly, 7:30 p.m., So. Middle School cafeteria, 12500 S. Birchdale, Downey, CA. VHF net W6GNS rptr. 146.175(+) Thurs., 7:30 p.m. http://www.downeyarc.org. For info: Larry Vaughn, kd6nzw at kd6nzw@downeyarc.org 5/00

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. 3/00

Fresno Amateur Radio Club. Meets 2nd Fri./monthly, 7:30 p.m., Ernie Pyle School, 4140 N. Augusta, Fresno, CA. 146.94(-) 223.94(-). 11/99

Golden Empire Amateur Radio Society, (VEC). P.O. Box 508, Chico, CA 95927. Club call W6RHC, rptr. 146.85(-). Meets: 3rd Fri./monthly, 7:30 p.m. at 345 Cherry St. (Library Rm.), Chico. 5/01

Golden Triangle Amateur Radio Club. P.O. Box 1335, Wildomar, CA 92595. Meets 4th Mon./monthly, 7 p.m., Beverly Health Care, 24100 Monroe Ave., Murrieta, CA 92562. Rptr: KE6UES 146.805(-) PL 100. Info: Norb Dean, AD6F, (909) 767-0449. E-mail: norbjudy@pe.net 8/00

Livermore Amateur Radio Club, (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. (925) 373-1386. 2/00

Los Banos Amateur Radio Club. Meets 2nd Sat./monthly, 7 p.m., Scout bldg. at Pacheco Pk., 7th St. & Pacheco Blvd. Info: M. Germino, AD6AA, (209) 826-0903, e-mail: AD6AA@arri.net. Net 147.060(+) PL 107.2 every Thur. 7 p.m. Rpt. KB6NMP 147.06(+) PL 107.2 & 444.00(+) PL 241.8. Web site: Home.inreach.com/AB6KF 6/00

Marin Amateur Radio Club (MARC). W6SG. Box 9456, San Rafael, CA 94912-9456. Meets 1st Fri./7:30 p.m., Kaiser Hosp., Bldg. 2, Terra Linda, CA. (except Dec.); Sun. a.m. Club at Alto Building, 27 Shell Road, Mill Valley, 9/99

Motorcycling Amateur Radio Club. Meets 2nd Sat./monthly, 8 a.m., Lake View Cafe, 2099 E. Orangethorpe, Placentia, CA, at 91 Fwy/Lakeview. Info: Ray Davis, KD6FHN, (949) 551-1036 or (949) 551-2010. 5/00

This month...Ashtabula County Amateur Radio Club, from Ashtabula, OH, are winners of 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, 7:30 p.m., Our Savior's Lutheran Church, 1035 Carol Lane, Lafayette, CA. Net Thurs. 7:30 p.m. on 147.06(+) PL 100Hz. Info: (510) 932-6125. 8/00

North Hills Radio Club. Meets 3rd Tue./monthly, 7:30 p.m., Carmichael Elks Lodge, 5631 Cypress, Carmichael, CA. Nets 8 p.m. Tue., (except 3rd Tue.) & Thur., 145.190(-) (PL 162.2 Hz) & 224.400(-) MHz. For info: Earl Mead, K6ESM, (916) 331-1115. E-mail: nhrc@K6IS.org or http://www.k6is.org 4/00

Orange County Amateur Radio Club. Meets 3rd Fri./monthly, 7:30 p.m., Orange County Red Cross, 601 N. Golden Circle, Santa Ana, CA. Talk-in 146.550 (S). Contact Bud Barkhurst, WA6VPP, (714) 744-6361. WWW.W6ZE.ORG 2/00

Poinsettia ARC. Meets 1st Thurs./monthly, 7:30 p.m., First Christian Church, Telegraph Road. & Teloma Dr., Ventura, CA. For info: Jim Casper, N6PIQ, (805) 649-1445. 4/00

River City A.R.C.S. Meets 1st Tues./monthly, 7 p.m., SMUD Bldg., Don Julio at Elkhorn, Sacramento, CA. License classes offered. Info: (916) 483-3293/9/99

Sacramento Amateur Radio Club. Meets 2nd Wed./monthly, 7 p.m. Sac. Blood Ctr., 32nd St. & Stockton Blvd., Sacramento, CA. Info net, noon on rptr. W6AKR 146.91(-). S. Cates, KC6TEV, (916) 391-7341 or L. Ballinger, WA6EQQ, (916) 393-4775. 2/00

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, El Camino Ave. & Watt Ave. For info contact Paul Wolf, W6RLP (916) 489-8112. 12/99

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. 6/00

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. 8/00

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. 1/00

Tri-County Amateur Radio Assoc. P.O. Box 75, Claremont, CA 91711-0075. Meets: 2nd Mon./monthly, 7:30 p.m., Brackett Airport Adm. Bldg., 1615 McKinley Ave., La Verne, CA 91750 (so. side of Brackett Airport). Info: Chuck, KQ6NX at kq6nx@juno.com or (909) 949-8145 3/00

Trinity County ARC. P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wed./monthly, County Sch. Adm. Bldg., Weaverville, 7:30 p.m. Rptrs: WA6BXN 146.73(-) PL 85.4, W6HOR 146.925(-) PL 85.4. 11/99

United Radio Amateur Club, K6AA. L.A. Maritime Museum, Berth 84, Foot of 6th, San Pedro, CA 90731. Meets 3rd Fri./monthly (except Dec.), 7:00 p.m. Monitors 145.52 Simplex 10 a.m.-5 p.m. 8/00

Vaca Valley Radio Club. Meets 2nd Wed./monthly, 7:30 p.m. (Board mtg., 7 p.m.) Vaca Fire Dist. Stn., Vine St., Vacaville, CA. Rptr. WD6BUS 145.47(-) PL 127.3. Gerald Grossardt, (707) 447-0869 5/00

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

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 12/99

Willits Amateur Radio Society, (WARS). P.O. Box 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. 2 NW Willits http://www.saber.net/wars. Talk-in: 145.13(-), PL 103.5. 9/99

Yolo Amateur Radio Society. Meets 1st Tues./monthly, 7:30 p.m., Denny's Restaurant, 4120 Chilies Rd., Davis, CA. Contact Dave Nishikawa, KC6YFG, (916) 756-6375/Talk-in 144.430. 12/99

Yuba-Sutter Amateur Radio Club, (YSARC). P.O. Box 1169, Yuba City, CA 95992. Meets 2nd Thurs./monthly, 7 p.m. Location announced at Mon. net, 7 p.m. on 146.085. 3/00

COLORADO

Boulder Amateur Radio Club (BARC). Meets 3rd Tues./monthly, 7:30 p.m., NIST rm 1107, 325 So. Broadway, Boulder, CO. Talk-in: 146.70(-). Info: (303) 380-6540, e-mail: BARC50@arri.net or www.thisistrue.com/barc.html 8/00

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. 8/00

Western CT. DX Club. Meets 1st Tues./monthly, 8 p.m., Brookfield Com. Cntr. (on Pocono Rd. across from Brookfield P.O.) Info: contact Victor at: victoras@EROLS.com 8/00

FLORIDA

Gulf Coast ARC. P.O. Box 595, New Port Richey, FL 34656. Meets 4th Mon./monthly, 7:30 p.m., Marchman Tech. Ed. Cntr., 7825 Campus Dr., Bldg. C, Rm C122, New Port Richey, WA4GDN rpters. 146.67(-) & 145.33(-), serving all of Pasco County. 11/99

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. 12/99

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. 3/00

GEORGIA

Cherokee Capital ARS. Meets 2nd Tue./monthly, 7 p.m., New Echota Methodist Church, 488 Red Bud Rd., Calhoun, GA. 146.805(+). Info: Felton Floyd, AF4DN, (706) 629-0369. 12/99

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, N4BD, 706/673-2291. 4/00

Gwinnett Amateur Radio Society, (GARS). P.O. Box 88, Lilburn, GA 30048. Meets 3rd Thurs./monthly, 7:30 p.m., Gwinnett Central Baptist Church on Gwinnett Dr., Lawrenceville, GA. 147.075+ PL 82.5. Contact: Mike Swiderski, K4HBI, (770) 449-0369. 8/00

HAWAII

Emergency Amateur Radio Club, (EARC). P.O. Box 30315, Honolulu, HI 96820-0315. Meets 4th Thurs./monthly, 7 p.m., Lincoln Elementary, School, 615 Auwailolu, Honolulu. Nets: nightly 7:30 p.m., 146.88 & 146.80. Rptrs: 146.76(-), 146.80(-), 146.88, 146.98(-), 146.94(-). Info: (808) 256-6001, WH6CZB. 12/99

Koolau Amateur Radio Club, (KARC). 45-145 Mikihina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Botanical Garden., Kaneohe, HI. Info: (808) 233-3042. http://www.chem.hawaii.edu/karc/ 8/00

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. 8/00

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 8/00

Hamfesters Radio Club, W9AA. P.O. Box 42792, Evergreen Park, IL 60805. Meets 1st Fri./monthly, 7:30 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. 2/00

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(-). 8/00

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(+). 4/00

Wheaton Community Radio Amateurs, (WCRA). P.O. Box QSL, Wheaton, IL 60189. Meets 7:30 p.m., 1st Fri./monthly, College of DuPage, Wheaton, IL. Rptrs: 145.39(-) (107.2), 224.14(-), 444.475(+)& (114.8). Info: Ron Hensel, K9ZE, (630) 365-0213, k9zze@aol.com 8/00

MAINE

Androscoggin Amateur Radio Club. Meets 1st Wed./monthly, 7 p.m., Auburn Police Station, 1 Minot Ave., Auburn, ME. Info: (207) 782-8699. 6/00

MARYLAND

Maryland Mobiles Amateur Radio Club (MMARC). P.O. Box 935, Severn, MD 21144. Meets 1st Fri./monthly, 7:30 p.m., Baldwin Hall, Generals HWY, Millersville. Info net each Mon. 8:30 p.m. on 146.805(-), tone 107.2 Hz 4/00

MASSACHUSETTS

Genesis Amateur Radio Society. P.O. Box 1234 Plymouth, MA 02362. Meets last Mon./monthly, 7:30 p.m. at Plymouth Airport, So. Meadow Rd. Tues. net: 146.685, W1LM, 8 p.m. 7/00

Quannapowitt Radio Assoc., Inc. 6 Savin St., Burlington, MA 01803. Meets 3rd Thur./monthly, 7:00 p.m. at Wakefield Public Library, 345 Main St., Wakefield, MA, Sept. to May. Info: Jim Chamberlain, N1AKG, (781) 944-5098. 5/00

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: Neil Griffith, KC8DAR, (517) 263-5774. 6/00

Genesee County Radio Club, Inc. Meets 3rd Tues./monthly, 7:30 p.m., Genesee Area Skill Center, Torrey Rd., Flint, MI. (810) 733-2082. 3/00

Hiawatha Amateur Radio Assoc. of Marquette Co. P.O. Box 1183, Marquette, MI 49855. Meets 1st Thurs./monthly, 7:30 p.m., 108 Stratofort, K.I. Sawyer AFB, MI. For info contact: Richard Schwenke, N8GBA, (906) 249-3837. 10/99

MINNESOTA

St. Cloud Amateur Radio Club. Meets 3rd Thurs./monthly, 7 p.m., Radio Club Bldg., 401 4th St. N., Waite Park, MN 56387. Info: (320) 255-1410, 146.94 or 147.015 or www.wOsv.org/3/00

MISSISSIPPI

Jackson Amateur Radio Club, Inc. Meets 3rd Thurs./monthly, 7 p.m., Am. Red Cross Bldg., Riverside Dr., Jackson, MS 39202. 11/99

MISSOURI

Macon County ARC. P.O. Box 13, Macon, MO 63552. Meets last Thur./monthly, 8 p.m., Macon R-I High Sch., rm.167. Net every Thurs. at 8:30 p.m. 146.805. E-mail: nepr@onelist.com 12/99

NEVADA

Frontier Amateur Radio Society, (FARS). Meets: 1st Sat./monthly, bkfst. mtg. 10 a.m., Chicago Hot Dog Drive In, 1078 No. Rancho Dr., Las Vegas, NV. after AES swap meet. Club info: Jim Frye, NW7O, (702) 456-5396 or Bill Scarborough, WA6ASI, (702) 269-9551. 8/00

Sierra Intermountain Emergency Radio Assoc., (SIERA). Meets 2nd Tues./monthly, 7:30 p.m., Minden Cntr. Hwy 395 & Ironwood Dr., Minden, NV. Contact: George Uebele, WW7E, (702) 265-4278, Rpt. 147.330 MHz. 1/00

Wide Area Data Group, Inc. P.O. Box 3132, Sparks, NV 89432. Meets 1st Sat./monthly, 8:30 a.m., JM Restaurant & Grille, 1885 S. Virginia, Reno. Info: (702) 356-8200. Call on 147.30(+)& MHz. 5/00

NEW HAMPSHIRE

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, 110.9, 88.5. 10/99

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. 6/00

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. 8/00

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. W2SEX. 12/99

Genesee Radio Amateurs, (GRAM). Red Cross Office, 220 East Main St., Batavia, NY 14020. Meets 3rd Fri./monthly, 7:30 p.m. 147.285(+)& W2RCX. 4/00

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: Voice mail (718) 760-2022. 2/00

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. 5/00

Suffolk County Radio Club, (SCRC). Meets 3rd Tues./monthly, 8 p.m., Bohemia Rec. Ctr., Ruzicka Way, Bohemia, NY. Talk-in: 145.21(-) rpt. Info: W.S. Black, KB2YAP, (516) 289-5587. 5/00

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(+). 2/00

NORTH CAROLINA

Mecklenburg Amateur Radio Society. Meets last Tues./monthly (except Dec.), 7:30 p.m., East Baptist Church, 6850 Monroe Rd., Charlotte, NC. Talk-in 146.94(-). Net 9 p.m. nightly. Contact: John Covington, W4CC, (704) 334-3900, e-mail: w4cc@w4bfb.org, website: http://www.w4bfb.org 12/99

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(+). Ph: (704) 888-4815. Web page: www.qsl.net/SCARC/ 5/00

OHIO

Ashtabula County ARC. Ken Stenback, W8KS (964-7316). County Vo-Edu School, Jefferson, OH. Meets 3rd Tue./monthly, 7:30 p.m., County rptr., 146.715(-). 12/99

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. Website: www.tmrhamradio.org 3/00

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(-). 3/00

OREGON

Central Oregon Coast ARC. P.O. Box 254, Florence, OR 97439. Meets 2nd Sat./monthly, at Bliss' Route 66 Restaurant at Hwy 101 & 12th St. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 1/00

Central Oregon Radio Amateurs, (CORA). P.O. Box 723, Bend, OR 97709. Meets last Thur./monthly, 7 p.m., Bend Sr. Ctr., 1036 NE 5th, Bend, OR. 147.06(+)& MHz. Info: (541) 389-7194. 9/99

Hoodview Amateur Radio Club. P.O. Box 20624, Portland, OR 97220. Meets 3rd Thurs./monthly, 7:30 p.m., Mt. Hood Community College/Gresham, Rm 1001. Rptrs: 147.28(+), 448.475(-5) (tone 167.9) 5/00

Keno Amateur Radio Club. P.O. Box 653, Keno, OR 97627. Meets 3rd Thurs./monthly, 7 p.m., Keno Fire Stn. Rptr. 147.32(+)& K7ENO. Info: Tom Hamilton, W6EAW, Telephone/FAX: (541) 883-2736. w6eaw@cdsnet.net 12/99

Umpqua Valley Amateur Radio Club, Inc. P.O. Box 925, Roseburg, OR 97470. Meets 3rd Thurs./monthly, 7:30 p.m., Douglas County Court House, Rm. 310, Roseburg, OR. Info: WOQOT/R 147.12(+)& (PL100) or (541) 863-7692. 7/00

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. 12/99

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. 145.05. 6/00

VIRGINIA

Mt. Vernon Amateur Radio Club, (MVARC). Meets 2nd Thur./monthly (except Dec.), 7:30 p.m., Mt. Vernon Governmental Cntr, 2511 Parkers Ln., Alexandria, VA. Contact: Bob, KT4KS, (703) 765-2313. E-mail: mvarc@juno.com, http://www.mvarc.org/, Net: Tues. 8:30 p.m. 146.655-. 10/00

Portsmouth ARC. Meets 4th Thur./monthly, 7:30 p.m., Am. Red Cross Chapter house, 700 London Blvd., Portsmouth, VA. Talk-in 146.850. Info: Carl Clements, Pres. (757) 484-0569. http://www.series2000.com/users/wa4nvi/parc/htm 4/00

Southern Peninsula Amateur Radio Club, W4QR (SPARK). Meets 1st Tue./monthly Sal. Army Com. Bldg., Hampton, VA. Repeaters 146.73(-), 449.55(-). VE Exam Info: (757) 898-8031, W4RTZ. 2/00

Virginia Beach ARC. Meets 1st Thurs./monthly, 7:30 p.m., Virginia Wesleyan College, Wesleyan Dr. off N. Hampton, Village 2 Commons, Graybeale Bldg., Virginia Bch, VA. 2/00

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(-) (103.5 CTCSS) rptr. Doors open 9:30 a.m. 5/00

WEST VIRGINIA

Jackson County Amateur Radio Club. Meets 1st Thurs./monthly, 7:30 p.m., Saint John Episcopal Church of Ripley. Net Mon. 9 p.m. on 146.67(-) WD8JNU/R. Info: D. Tennant, N8ZYB, Rt. 1, Box 188, Mt. Alto, WV 25264. 7/00

Tri-State Amateur Radio Assn. Meets 3rd Tues./monthly, 7 p.m., The American Red Cross, 111 Veteran's Memorial Blvd., Huntington, WV. 5/00

NATIONAL

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. 2/00

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Other organizations

There are several organizations in addition to ARRL and QCWA, the membership of which consists predominantly radio amateurs; although in a couple of instances the purpose of the organization is not primarily to serve the interests of amateurs. I plan to feature a "mini-history" of several of these organizations in the next few columns.

The oldest of these is the Radio Club of America, Inc. which came into being in 1909. (No, it's not an offshoot of the Radio Corporation of America — it preceded RCA (1919) by ten years.

Next came the Veteran Wireless Operators of America, Inc., in 1925.

I am unaware of any other organizations of the caliber of the foregoing which came into existence between 1925 and the immediate post-WWII years.

In 1947 two new organizations appeared — The Old Old Timer's Club and the Society of Wireless Pioneers. I will cover SOWP first because I have first-hand knowledge of it; I became Senior Vice President in 1987, and President in 1994.

The Society of Wireless Pioneers

For the record, SOWP was founded by William A. (Bill) Breniman in 1968.

Bill's career commenced during WWI, when he served on two ships (unfortunately, I am unable to identify them). By his own words "I joined the Navy and because I knew the Continental Morse code I was detailed to signal school to learn International Morse. I also became proficient in wig-wag, blinker and semaphore as well as both codes."

After WWI Bill spent some years in com-



mercial communications, including operating on many types of ships. Later he joined the Federal Airways when they were expanding their system and flying was becoming popular. Bill is a gregarious person, so when he retired from the Civil Aeronautics Administration (now the FAA) in 1958 he founded the Society of Airways Pioneers. The purpose was to bind together people of kindred interests and to record the history of the Airways, especially early-day communications.

After retirement, he and his wife Ruth, now deceased, settled in Santa Barbara, CA, then moved to Santa Rosa in 1964 to be near personal friends. They started looking up old shipmate friends from his sea-going days, and soon made contact with several dozen of the old-timers; the Brenimans had open house to these old friends between Christmas and New Years. By 1966 the group had become so large that he suggested forming a small organization of the old-timers in the area. The initial name, The American Society of Wireless Pioneers of the Seven Seas, was soon shortened to The Society of Wire-

less Pioneers.

The Constitution of SOWP reflects Bill's preoccupation with recording bygone days before those with first-hand experience passed on. The Object and Purposes of SOWP are to "perpetuate the memory, heritage and traditions of all pioneer and veteran wireless (radio) telegraphers and preserve the record of the many heroic wireless men and women who have proven their courage and valor in times of dire emergency or disaster and of the many wireless pioneers who have directly or indirectly contributed to improvement of the art . . ."

The requirements for membership in SOWP are believed to be unique. The By-laws state that "Regular membership in the Society requires the applicant to provide, if requested, documentation that he or she earns or has earned his or her living as a wireless or radio telegrapher, and has handled traffic using recognized codes of the world, excluding land-wire."

In keeping with the historical aspect of SOWP, there is an additional class of membership, described thus: "persons who do not meet the requirements for regular professional membership in the Society, but have a deep-rooted interest in communications, may become Technical-Associate members upon application to the Executive Director" (now Executive Secretary). "These include inventors., entrepreneurs, engineers, researchers, technicians, instructors, technical and scientific writers and administrators. They are entitled to all Society privileges, but may not hold office or vote."

SOWP grew rapidly during the first 15 years, reaching a membership of over 4,000 members in 1982. One must not forget, however, that SOWP was founded in the waning years of HF radiotelegraphy, which was being superseded by semi-automatic and fully automatic satellite-based communication and position-fixing systems, and so the number of Silent Keys per unit time is increasing, and the number of new members is decreasing. As of late 1998, the cumulative number of new members was 5614, but there are only about 1,000 members listed in the current Directory.

The question often asked is "Is SOWP an Amateur Radio organization?" Definitely not. I am first a Life Member of SOWP, and also a member of the SOWP Amateur Radio Club. My certificate states that "the SOWP Member operating this station is or has been a professional brass-pounder who continues to find pleasure

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Society of Wireless Pioneers HF Nets

NET	Day	Time (UTC)	Freq.	NCS
Happy Hour (N. CA)	M-F	0100	3.947.5	W6TQU
Happy Hour (S. CA)	T-F	0000	3.947.5	W6VFT
Art Schermerhorn	M-T	0000	7.052	KA2ZNE
W8FEC Memorial	M-T	0100	3.555	W8PQO
Capital Area (SSB)	T	1500	3.966	W4ZC
H.K. Warner Mem.	T	1800	14.058	W8CCN
Transcon Net				
Jack Binns	T-W	0400 & 0100	3.555	W7PN
Oscar Harrison Mem.	TH	1600	14.055	W0AP
Transcon Net				
Richard Johnstone	TH	0400	3.555	W7FLF
(Net closed June — August)				
Capital Area	SAT	1400	3.665	W4ZC
Yankee East Coast	SAT	1530	7.052	KA2ZNE
Swiss	SUN	0915	7.027	HB9CHE
Southeastern	SUN	1900	7.052	W0ABO
High Speed CW Practice	M & TH	0130	3.523	W1NJM
High Speed CW Practice	M	0330	7.023	K6DYX
High Speed CW Practice	Daily	0000	7.058	K7HLR
High Speed CW Practice		1400		

and enjoyment through contacts via the amateur bands, thus keeping his hand in through this hobby and avocation. He maintains a continuing interest in the art as well as in fellow members of the craft, in the best traditions of the world's amateur fraternity."

Notwithstanding this, more than 90 percent of the current membership are li-

censed amateurs. The above table is a list of the nets maintained by and for SOWP members.

About five years ago the governing Board of SOWP was asked to consider relaxing the membership eligibility requirements, to increase the number of individuals eligible for membership. The proposal was defeated.

Inside Amateur Radio

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

Encounter

He didn't mean to cause such a fuss, reports John Duce, N6EDX:

"In June of 1981, I was performing my last two weeks of Naval Reserve active duty training at Pearl Harbor, as I had for many years. My quarters were at those of the Chief Petty Officers' just outside the main Makalapa gate.

"The buildings are on a knoll less than a hundred yards away from the gate. Our parking lot was close by, next to dependents' residences which were behind an eight-foot chain link fence on the naval base.

"One night, just after dusk, I was walking to my car, wearing my civilian clothes. I was talking via my hand-held transceiver to a Ham on one of the other islands.

This was easy because the Hawaiian amateurs have an elaborate inter-island system of repeaters.

"I delayed getting into my car as I wanted to finish an interesting conversation. Suddenly I found myself surrounded by vehicles with flashing red and blue lights.

"Who are you and what are you doing?" the uniformed officers demanded.

"It seems they had received telephone reports of a suspicious individual transmitting just outside the naval base gate. Of course, it seemed like a cloak-and-dagger spy situation.

"I had the amateur on the other island explain further. He thought it was very funny.

"They didn't!"

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TiCK talk 4: The next generation

Since bursting onto the QRP kit scene back in 1996, Brad Mitchell, WB8YGG, and Gary Diana, N2JGU, have been models of perpetual motion at the helm of Embedded Research.

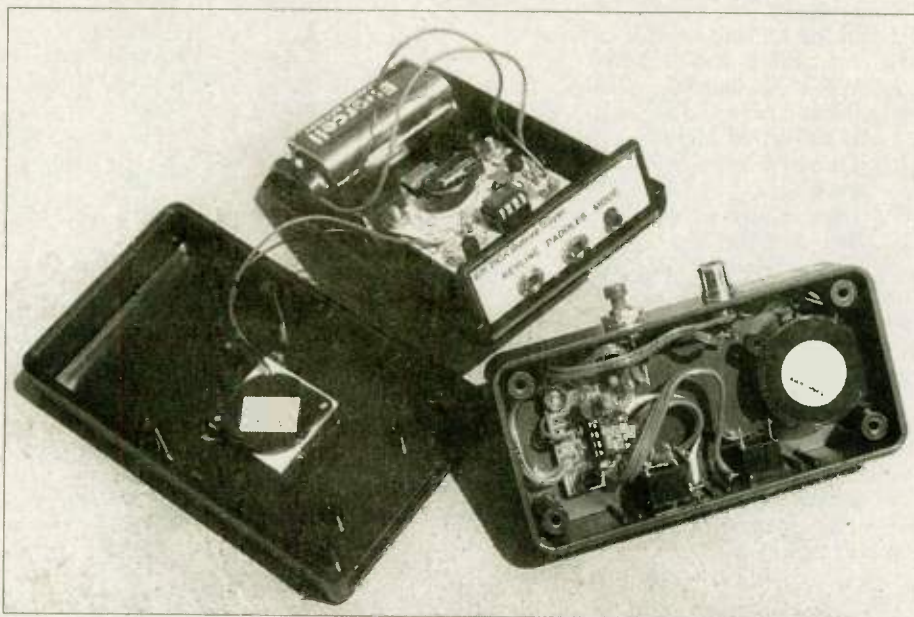
Their starter kit, the AK-1 Atomic Keyer (November 1996 *Worldradio* QRP column), was a fundamentally good idea that in many ways set the table for what would become their wildly popular line of sophisticated, next generation keyer chips: the TiCKs.

And Mitchell and Diana's zest for making good ideas even better resulted in the TiCK-1, which gave way to the TiCK-2, -2B, and -3. Now comes the TiCK-4. It's got all the features of its predecessors and adds some goodies of its own.

Perhaps the best news is that for the thousands of QRPers who are using some form of the TiCK keyer as either a stand alone unit or have them integrated into transceiver or transmitter circuits, the new TiCK-4 chip is a direct replacement for any previous TiCK chip. Out with the old, in with the new.

TiCK circuitry has been designed onto the printed circuit boards of the NorCal 38 Special, NC20, Red Hot 20 and 40 QRP transceivers, and the New Jersey QRP Club Fireball-40 transmitter kits.

The great news about the TiCK-4 is that it features non-volatile parameter storage — which means when power is removed



Embedded Research has introduced two items to its product line. It now has a custom case, left, for its TiCK-EMB keyer kit. Also, it has released the new multi-function TiCK-4 keyer chip, available in its conventional kit package, right.

from the chip. many of the operator's settings will be protected. Gone are the days of having to completely reprogram the keyer every time power is newly applied.

What else does the TiCK-4 offer? Here's

a laundry list of features that have been evolving with each new upgrade:

- Iambic keying in a mode choice of either A or B.
- Speed adjustment via keyer paddle.
- Builder selectable sidetone (either via piezo audio transducer or in conjunction with your transceiver's audio circuitry).
- Tune function.
- Left/right-dash/dot paddle selection.
- Beacon mode.
- Two 50-character memories.
- Straight key mode.

A front panel pushbutton toggles many of the functions. Along with your keyer paddle, this button is all you need to vary TiCK-4 programming into a wide variety of configurations.

The TiCK-4 chip is being offered by Embedded for \$15. A complete standard TiCK-4 kit is \$25. Add \$2.50 shipping in the U.S.; \$5 DX.

When comparing cost and utility, you just can't go wrong.

More TiCK talk: making a case In addition to upgrading its TiCK keyer chips, Embedded Research has further pushed the envelope. This time it's in the packaging.

In the past, operators who built TiCK keyers as stand-alone units had to come up with an enclosure of their own. Now Mitchell and Diana are offering a beautiful pre-drilled and labeled plastic enclosure.



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sure for their top-of-the-line TiCK-EMB keyer (June '98 *Worldradio* QRP column). The EMB keyer kit features an enhanced printed circuit board and memory backup using a board-mounted lithium battery.

Measuring 2.25 inches wide, 4.25 inches deep, and 1.125 inches high, the new enclosure is custom made using a Hammond molded hard plastic case. It comes in three pieces: front, top and bottom panels. The bottom panel includes a removable battery compartment cover.

The enclosure has rounded edges and is colored flat black. The front panel has smart black lettering on a light blue background. The panel labeling is plastic-covered to reduce wear and prevent discoloration or smudging.

Keyline and paddle jacks protrude through the case's front panel, along with the board-mounted pushbutton for selecting TiCK keyer modes and features.

Holes in the rear of the TiCK-EMB circuit board align with holes on the bottom panel of the enclosure. The EMB PC board is affixed to the case using bolts, nuts and spacers provided in the board kit.

The enclosure has a door to access the TiCK-EMB's 9-volt battery. Slide the door back and the operator can install a fresh battery in seconds. The top panel of the case has a small hole drilled specially to release the sound from the kit's piezo transducer keyer monitor element.

Complete and easy-to-follow assembly instructions accompany the enclosure kit. The EMB board can easily be installed in less than a half hour.

The enclosure kit includes all hardware

and even provides rubber feet, giving the enclosure a polished look that will make it at home at even the most sophisticated operating position.

The TiCK-EMB Enclosure Kit is \$15, plus \$2.50 shipping in the continental U.S.; \$5 DX.

For builders who want to go "top-of-the-line," Embedded is offering the new TiCK-4 chip in an EMB deluxe keyer kit package — the TiCK-EMB-4 — for \$35.

So for \$50, plus shipping and handling you get Embedded's top keyer kit with the latest TiCK chip, along with a rugged-yet-attractive enclosure.

Now there's a combination that — for the price — is tough to beat.

For complete information, write to Embedded Research, PO Box 92492, Rochester, NY 14692. Via e-mail: embres@frontiernet.net. The company's web site is: www.frontiernet.net/~embres.

1999 QRP ARCI Hall of Famers

Three renowned QRPers have been named to QRP Amateur Radio Club International's Hall of Fame for 1999: Dave Benson, NN1G; L.B. Cebik, W4RNL; and Paul Harden, NA5N.

Benson is perhaps best known for his innovative QRP circuit design. He is the father of the New England QRP Club's NE 40-40 transceiver and founder of Small Wonder Labs, the Connecticut-based QRP kit company. He has also been a key player in QRP technology and education programs.

Cebik is considered QRP's leading expert on antenna theory and design. He is widely published in mainstream Amateur Radio magazines, QRP journals and is a frequent contributor to the worldwide Internet Mail Group QRP-L. He is also much sought as a speaker at QRP seminars and symposiums.

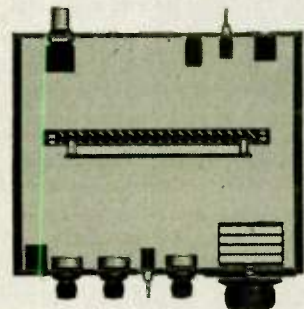
Harden is well known in the QRP community as an innovative low power designer, builder, writer, publisher and master illustrator. His contributions to QRP journals, in both content and in their production, have been significant. He is also a leading expert on solar phenomena and propagation.

The trio joins previous inductees Chuck Adams, K5FO; Wayne Burdick, N6KR; Jim Cates, WA6GER; Gus Taylor, G8PG; Roy Lawellen, W7EL; the Rev. George Dobbs, G3RJV; Randy Rand, AA2U; Doug Hendricks, KI6DS; Dick Pascoe, GØBPS; Mike Czuhajewski, WA8MCQ; Brice Anderson, W9PNE; George Burt, GM3OXX; Tom Davis, K8IF; Wes Hayward, W7ZOI; Rick Littlefield, K1BQT; C.F. Rokey, W9SCH; Ade Weiss, WØRSP; and the late Doug DeMaw, W1FB.

Amplification

In its tally of QRP symposiums, July's QRP column ("A Millennial QRP event: Celticon 2000") did not cite "Four Days in May," first held in 1996. Developed from a concept by the late Bob Gobrick, NØEB; and Bruce Muscolino, W6TOY/3; FDIM was the first of the major modern QRP symposiums and is held annually in concert with the Dayton Hamvention. — *Richard Fisher, KI6SN can be reached at: 1940 Wetherly Way, Riverside, CA 92506 or via e-mail: KI6SN@aol.com.*

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New KC2 LCD Counter/Keyer/S-Meter/Wattmeter \$75

The KC2 is our newest QRP accessory, packing a 4-digit freq. counter, memory keyer, bar-graph S-meter and digital wattmeter into a 1"H x 3"W module! It's the ultimate add-on accessory for the Sierra and other QRP rigs. Draws only 7mA.

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How's Cycle 23 doing?

For the past year or so I've been giving very brief updates of the progress of Cycle 23 at the end of some of my regular columns. The last column totally devoted to Cycle 23 was in the June 1998 *Worldradio*. That was over a year ago, so it's time to take a little more detailed look at Cycle 23. We'll also run a propagation prediction, highlighting those areas that are critical for good predictions.

The scientific community put the start of Cycle 23 in October of 1996. That's five months later than the numerically-calculated start (see the June 1998 column for an explanation of this). Thus we're three years past solar minimum. Figure 1 is a plot of SSN (smoothed sunspot number) from the beginning of Cycle 23 in October 1996 up through December 1998.

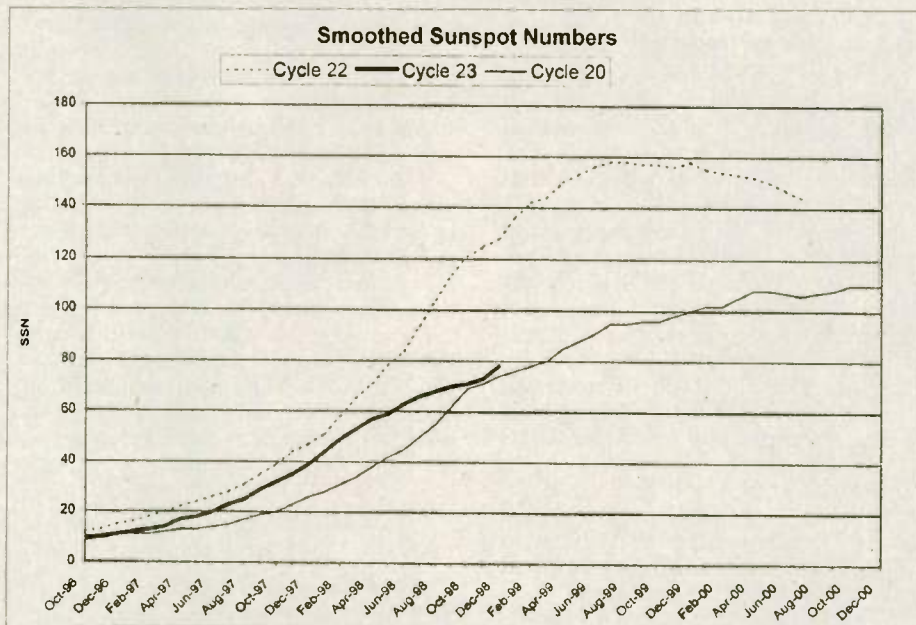
December 1998 was the month of the latest SSN data at the time I sent this column in (early July 1999).

There have been many predictions for Cycle 23, and many of them predicted that it would be as big as the previous two cycles, which were Cycle 22 and Cycle 21. These Cycles reached maximum SSNs of 159 and 160, respectively. But as can be seen so far, cycle 23 does not appear to be headed for the same high level as those two previous cycles. It started out fast and was paralleling Cycle 22, but then slowed down in the early part of 1998. The good news is that the December 1998 SSN showed a nice jump upward — hopefully it will continue at this faster pace for a while.

Why can't we predict solar cycles better than this? In a nutshell, we don't know the physical process that generates sunspots. Thus any prediction for the future is based on historical data. The big problem with historical data is we only have a couple hundred years of it for a process that's probably been going on for millions or billions of years.

It's no wonder that our predictions can be off so much — we're working with a sample size that's very small in anybody's book.

Looking closer at the Cycle 23 data and comparing it to other cycles shows it to be



kind of headed toward the Cycle 20 maximum, which was an SSN of 110. That isn't bad — 10M will still have good F region openings to all corners of the Earth, but they just won't last as many years as they did for the previous two cycles. And of course 6 Meters may offer less opportunities than did Cycles 22 and 21.

But as I've stressed in the past updates, we're playing a guessing game here — Cycle 23 still has the potential to make a run for the levels of Cycle 22 and Cycle 21. We'll just have to wait and see what it actually does.

Now let's put this SSN data to good use by running through a propagation prediction to make sure we all understand some of the inputs required and what the output of the prediction means.

The SSB weekend of the CQ World Wide DX Contest is coming up at the end of October, and I read in the ARRL's *National*

Contest Journal that the Bavarian Contest Club (Germany) is planning a multi-operator, multi-transmitter operation from Morocco using the call CN8WW. Being a multi-multi operation says they'll have a station dedicated to each band, with as much operation on each band as possible.

Let's assume I'm working toward my 5BDXCC award (work 100 countries on each of the 80, 40, 20, 15, and 10-meter bands). Let's also assume I've already managed to work CN on 40, on 20, and on 10. I've always believed that a contest is a great way to pick up new countries for these awards (likewise with CQ zones for CQ's WAZ awards), so let's use propagation prediction software to determine when the best time is to work CN on 80 and 15 Meters for the late October contest period.

The first thing we need to know is the SSN for October 1999. Why should we use SSN and not the daily solar flux from WWV? That's because propagation prediction programs are based on the correlation between SSN and monthly median ionospheric parameters. The use of the readily-available daily solar flux from WWV broadcasts at 18 minutes past the hour compromises the accuracy of the prediction, as the ionosphere does not instantaneously react to the daily gyrations of solar flux (or daily sunspot count either, for that matter). In fact, solar flux at 10.7cm is an indirect measurement of the true ionizing energy, and is about 1 million times less energetic than the true ion-

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izing energy — ultraviolet radiation. But it's easy to measure, as the atmosphere is transparent at 10.7cm. The use of smoothed solar flux (which is calculated in the same manner as smoothed sunspot number) is ok, as there is a good relationship between SSN and smoothed solar flux.

But looking at Figure 1 shows that we don't have the SSN for October yet because it's a 12-month running average centered on the desired month — which means we won't have the October 1999 SSN until early 2000 (this 12-month running average is also why the aforementioned December 1998 data was the latest as of July 1999). So what do we do? As a famous starship captain told his science officer, "you'll have to make your best guess." Looking at the Cycle 23 curve in Figure 1 and extrapolating it out to October 1999 says an SSN of 90 would be a pretty good guess.

Now let's input that SSN into a propagation prediction program. I'll use MINIPROP PLUS 2.5 for this, but any of the other programs will be just as good. Using my QTH at 41 degrees North and 86 degrees West, an SSN of 90, and the month of October, the output of MINIPROP on the two bands of interest (80 and 15 Meters) is per Figure 2.

The first column is the time (MINIPROP PLUS 2.5 prints out predictions in half hour time intervals, but for brevity I chose to show the output in two hour intervals). The second column is the maximum usable frequency.

The third column is the predicted signal level in dB above 0.5 microvolt (.5uv is about S1 on an S-meter) followed by a letter representing availability (more about this later) for 80M. The fourth column is the predicted signal level and availability for 15M. The signal levels are calculated using 100W and user-defined antenna gains. Other programs may differ in this area — all I can say is to read their manual on setting up the prediction parameters.

Since prediction programs use SSN to correlate to monthly median ionospheric parameters, then any output from the program will also be a monthly median value. Thus the MUF for the path is a monthly median value, as are the signal levels for each of the bands. With median signifying 50%, the actual MUF and signal strengths should be the predicted values on half of the days of October. On the other days of October, the actual values will be lower or higher than the prediction. One of the pitfalls is to assume that the out-

Time (UTC)	MUF (MHz)	3.5MHz (dB > .5uv)	21.0MHz (dB > .5uv)
0000	14.5	55 A	
0200	12.3	62 A	
0400	11.1	62 A	
0600	11.5	62 A	
0800	12.2	37 A	
1000	11.9	-39 A	
1200	17.6		52 D
1400	26.1		51 A
1600	30.8		51 A
1800	30.2	-70 A	53 A
2000	24.7	3 A	55 A
2200	17.0	41 A	57 D

Figure 2 Prediction for 80M and 15M.

put of a prediction is an absolute value. Not so — these outputs are statistical in nature for a one month time frame.

MINIPROP PLUS 2.5 also gives you availability — the probability that the operating frequency will be below the predicted median MUF. The letter A means 75-100%, the letter B means 50-75%, the letter C means 25-50%, and the letter D means 1-25%. When the predicted MUF is a lot higher than the operating frequency, the availability letter is A. Likewise, when the predicted MUF is a lot lower than the operating frequency, the availability letter is D (or not even displayed if it's Ø). When the predicted MUF is the operating frequency, the availability letter should be B (50%).

So when's the best time for 15M from Ft. Wayne to Morocco? From 1400 to 2000 UTC, the predicted signal strengths have the letter A next to them.

That means it's almost a sure thing (75-100% probability) that 15 Meters will be

open. At 1200 and 2200 UTC 15M has a probability of being open, but it's not very high as indicated by the letter D. The signal strength from 1400 to 2000 UTC on half of the days of the month will be at least 50dB or so above .5uv, which works out to be about S9 plus 10dB. That should put CN8WW in the log even with a statistical variation about S9 plus 10dB.

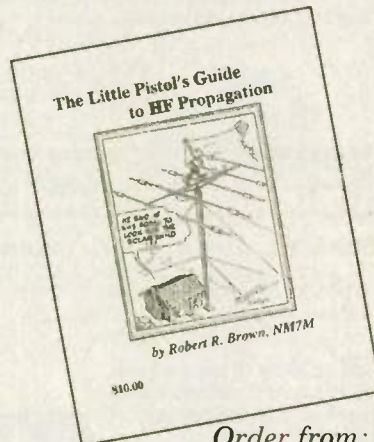
What about 80 Meters? Note that the letter A is next to all the signal strengths (even when the signal strength is predicted to be below .5uv at 1000 and 1800 UTC). That just indicates that the MUF really has nothing to do with predic-

tions on 80 — it's always higher than the operating frequency. The predictions are really based on absorption. And since absorption on 80M is minimum during darkness, the signal strength follows the sun. Any time from 2200 to 0800 UTC should get CN8WW in the log. I would check particularly around my sunset (2239 UTC) and their sunrise (0648 UTC).

I hope this has given you a good update on how Cycle 23 is doing. And hopefully you can make better sense out of propagation predictions. Regardless of the propagation program, use SSNs and remember the output is statistical in nature. If you want more on this subject, go back to my columns in the October, November, and December 1997 issues, in which I went through in great detail how propagation prediction programs work.

— Carl Luetzelschwab, K9LA, can be reached at: 1227 Pion Rd., Ft. Wayne, IN 46845 or you can e-mail him at: k9la@gte.net.

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Amateur Radio and its associated growing pains

J.M. "Huck" Huckabee, AA5BU

My first Amateur Radio license arrived late in 1940. That was the greatest thrill of my life! I was an older teenager and the same day, I sent a dollar bill to Allied Radio Corporation for 100 QSL cards. The cards arrived in about ten days and the red-on-white W5KCI was the most beautiful picture my eyes would ever see in a lifetime! And I suspect each of you had the same thrill on "That First Day" of Amateur Radio.

Times were hard; but some good Ham friends were helping me. I was ready. Everything was home-built on a "bread-board." The little oscillating receiver had three tubes, and a single tube crystal oscillator was the transmitter. A double-pole, double-throw knife switch was used to switch antenna and high voltage from transmit to receive.

I called CQ by the hour on 40 Meters CW. On that very first day, I received a reply from the adjacent state — a distance of about 40 miles. I was on my way to "Worked All States!"

And that's when my growing pains began to hurt. With no keying monitor, that first contact could not copy my "sorry fist" very well. After asking him to QRS (slow down) several times, he asked if I would relay a message. Wanting to "do it all," I said yes. What a mess! I was never sure what the message was, or who it was for! I wanted to cry, but was ashamed to admit that I bungled my very first contact. Heartbroken, I wondered if Amateur Radio could ever become fun! That first contact made my body hurt and my heart ache more than a long day of hard labor.

My Ham friends helped me put together a little keying monitor and things began to improve. The stress was so great that I needed to rest after each QSO. Soon the

situation improved, and I received my first QSL card. I was so excited that I was spending late hours at night trying to work all states — and waiting for the morning mail for another QSL card.

About two months went by and "The Big QSL" arrived. It was from the Grand Island, Nebraska, FCC monitoring station. It required a reply to explain why I was talking to HR1MB down in Honduras. In those days the war clouds were heavy and we were not permitted to work stations outside the U.S. I was told my license was subject to recall.

Now I was really hurting! I sent a transcript of my log. Fortunately, I was talking to a U.S. station at the time — which the FCC later confirmed.

On 07 December 1941, all Amateur Radio operation was suspended for the duration of the war. In my scant year of operation, I had worked all states and was on the way to being a high-speed CW operator. But alas, "young Huck" was off the air, and off to the Armed Forces of WWII.

Several years passed. Radio, radar and microwave communication schools and vast experience with military equipment moved that W5KCI operator to Germany by the end of the war.

The Signal Corps decided to issue Amateur Radio licenses in Germany. "Sergeant Huck" was in the head of the waiting line. I appeared before the Chief Signal Officer along with a young lieutenant from my unit. We were a witness for each other, and received our licenses on the spot. I was now D4AER. And I re-lived the joy of

my first ticket.

With the war over, there was a vast amount of American and German radio equipment scrap available. In a few weeks I was on the air with 25 Watts on 10 Meters. That was the maximum power permitted, and the only band. 10 Meters was wide open. I worked all continents twice on a single Sunday afternoon! But then the whole world caved in on "Sergeant Huck."

Everyone in Europe wanted to work a phone patch to the U.S. Everyone also wanted to know if jobs were available to the soldiers when we returned home. Are automobiles, gasoline, tires, food supplies, transportation and housing available? But the U.S. Hams would not talk about these things. All we could hear was, "send me a QSL by air mail." It was impossible to talk to a U.S. station without a breaker saying, "just repeat my call please." If I did so, it was, "I need your QSL for - - ." And I wished for a power failure about that time. Where on earth did those people think I could get a QSL card printed in a war-torn country? I found being a prize DX station was almost as painful as not being able to get on the air at all!

I suspect that all of our seasoned Amateur Radio operators have experienced similar growing pains. And, I feel certain that each young operator, regardless of age, has had, or is having Amateur Radio growing pains. But let me tell you the good news. No matter how painful growing up in Amateur Radio may be at the time, we all would love to do it again!

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The truth about verticals

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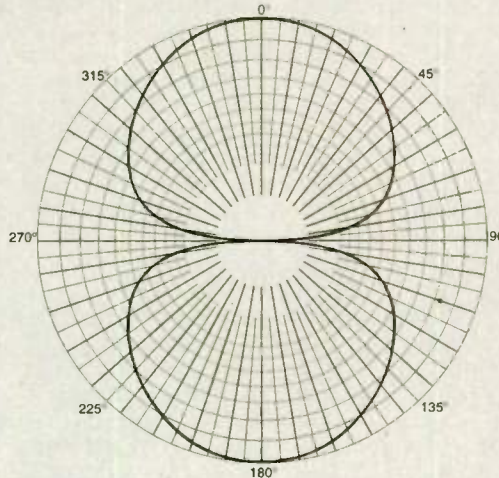
I always enjoy the Dayton convention. The crowds are enormous, it's hard to get a hotel room and, if you live far away, it costs a lot to get there. But, the vast fleamarket allows you to view the whole history of Amateur Radio in the piles of "Junque" for sale. Have you seen a vacuum tube lately? Or a radio that uses them? You will in the Dayton fleamarket. Need a part of some kind? It'll be there somewhere. You can even buy parts you *don't* need and you probably will. It's hard to resist a real bargain.

Kurt's eagle eye is mostly on the indoor exhibitors' booths. That's where you find all the newest and latest from manufacturers from all over the country and beyond. That's where you also find, in a few booths, exaggerated or sometimes wildly incorrect claims of performance of new antenna designs. The Masked Avenger found a few this year and is here to keep you from being hoodwinked.

Radical vertical

There, in booth #30, were some nice looking antennas from Florida. We'll call this firm Big Yellow from the color of their ads. The Editor requests we not give the correct name as that is a freebie for a company that does not pay to advertise in *Worldradio*. You can see their products on the web at www.gapantenna.com.

The misinformation in the literature pained old Kurt when he realized that as many as 30,000 Hams may have been sub-



jected to it over the weekend. We'll set it right.

We're told that the conventional vertical (a 1/4-wave vertical with ground radials) is "the most inefficient, noisy antenna available for amateur use..." Well, as Kurt has explained before, a 1/4-wave vertical with 120 radials is almost 100% efficient. You can't do better than that.

Then we're told in their literature that a 26-ft. vertical on 80 Meters with three round radials is woefully inefficient. Of course! This vertical is only 1/10 wavelength long and, as Kurt has explained before, short verticals need lots of radials. But, Big Yellow goes on to say that placing 60 radials with 4,000 feet of wire under the antenna still gives an efficiency of only 50% because there's 4 Ohms of

earth loss. Not exactly! The earth loss will be about 1 Ohm and the efficiency probably will be better than 80%. The DX station you're working couldn't tell the difference between that and 100%. Follow Kurt's advice: If you use a short trap vertical and have the room, put in plenty of radials.

Next we are told "Radials are not the answer." Well, as Kurt just explained, they are the answer.

"Radials destroy multi-band operation. A multi-band vertical must have earth loss to work." The truth, of course, is just the opposite; the less the earth loss, the better such antennas work.

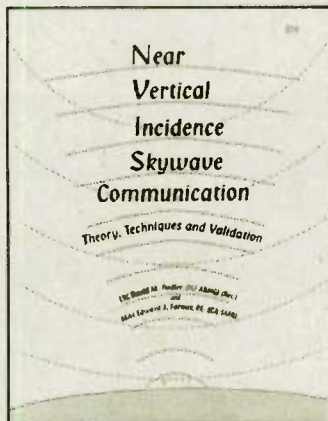
"A multi-band vertical mounted on your roof won't work all the bands." I'm sure that this is news to all those who have done exactly that over the years with their Hy-Gain verticals. They know better. It's the newcomer to Amateur Radio that Kurt is talking to in order to keep him from falling for this malarky before he learns the truth.

The further I read, the worse it got. We were told that "Radiation resistance increases as the feed point is elevated." "Earth loss results from the capacitance of the antenna to ground above the feed point." Raising the feed point "virtually eliminates ground loss."

As explained in the Antenna Book, the feed point resistance increases as the feed point is elevated. This is because, the higher you go on the antenna, the less the current and the higher the voltage. Ohm's Law is $R=E/I$. But the radiation resistance at the base of the antenna does not change at all. The current flowing into the ground resistance does not change. The efficiency does not change.

A two-color drawing in the brochure shows current flow through capacity to ground above the center feedpoint but none below the feedpoint. Presumably this is because the bottom half of the antenna is grounded at the top by being connected to the coax shield. This, of course, neglects the fact that, as Kurt has explained before, there is current on the inside of the

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AERIALS

Snowflakes

Yes, a beam antenna in another Dayton booth claims that the hexagonal snowflake inspired its "controlled field" design. The result is a "supergain" beam that is half-normal size but with the bandwidth and efficiency of a full size beam. It works fine at low heights, so high towers and rotors are not needed.

The world has been waiting for a beam that has gain in all directions so we can dispense with that expensive rotor. Too bad it's impossible.

What is a "controlled field?" How is it generated? We're not told. What gain measurements were made? Well, we're told that the beam's capabilities cannot be based on ground tests alone. They cannot be measured on a range, cannot be viewed on present computer modeling programs, and cannot be defined on paper. Only on-the-air tests will do, and those show "noticeable signal intactness and less fading."

The tooth fairy lives out there in never-never land. Old Kurt thinks that this antenna came from the same fairyland. It should be sent back.

shield equal to that on the center conductor. This current will flow down the antenna to ground giving the same current distribution we would get if we fed the antenna at the bottom. There is no change in operation of the antenna.

The only things that change are the outrageous claims made for this antenna design. "Exceeds conventional verticals by up to 600%." Kurt will welcome field strength measurements backing up this claim. meanwhile he suggests you keep on working DX with your multi-band vertical whether mounted on your roof or not.

The Poynting vector

How would you apartment dwellers like a 20-meter antenna (also covering 17, 15, 12 and 10 Meters) that is only three feet high? And had almost 100% efficiency? And wide bandwidth?

Do you believe all this? Kurt sure doesn't.

But, this antenna company wants us to believe. The three-foot vertical has a six-foot square ground plane at the bottom and an upside-down wire basket on the top. Capacitance between the basket and the ground plane resonates the antenna. And, it is claimed, this capacitor causes a large electric field instead of the large magnetic field of a wire antenna. Maxwell and Poynting, pioneers in electromagnetic radiation, are brought in to support this nonsense.

The interpretation of Maxwell's equation is wrong, of course. The fact is that electromagnetic waves have equal energy in their electric and magnetic fields. This energy moves back and forth from one to the other as the wave moves along. The talk in this antenna brochure about "EDR: E field dominated radiators: and "MDR: magnetic field dominated radiators" is just so much hokum. I'd put this in the same category with copper bacelets and magnetic charms. Too bad newcomers are exposed to this balderdash; some of them may believe it.

Last Tucker asked to justify club call signs

The FCC has previously written to Roy Tucker, N6TK, his wife Kathryn, AA6TK, son Eric, AA6ET and daughter-in-law Nancy, W5NAN, asking each to justify twenty-seven of thirty six club call signs that the family members hold. Now, the FCC has also requested Roy Tuckers' other son Kent, AA6KT, provide justification in writing for at least eight club station call signs for which he is the responsible party. The FCC said it will cancel all of the listed call signs if each of the Tuckers' do not respond satisfactorily within thirty days of the date that each one was notified. — FCC, *Newsline*

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Contest exchanges

For a newcomer, one of the most intimidating things about a contest is the rapid-fire exchange of information you hear other participants make. One thing for sure, these contest QSOs bear very little resemblance to ragchews, and only a limited similarity to DX pileups. As odd as they may sound, these machine-like exchanges are critical in a contest because no QSO is complete without each station accurately copying the information the other sends.

If you plan to enter a contest, you must know exactly what information to exchange with other participants. If you're just trying to be nice and help out the serious entrants with a few contacts, take the time to figure out the exchange. They'll appreciate it, and you'll have more fun.

In the rules of every contest, organizers clearly state the minimum information that stations must exchange for a QSO to be valid. Universally, you must copy the other station's call sign correctly. Contest rules also require the exchange of at least two and sometimes more pieces of information. Here are some of the most likely candidates:

Signal Reports: Most, but not all contests require an exchange of RST signal reports. Whether it's simple laziness or for some other reason, everyone is "5-9" or "5NN" (N is a CW short form for 9). Even if your signal is very weak, everyone will probably give you a phoney great report. If you feel you must give a precise signal report, by all means do so, but don't take other people's signal reports too seriously.

Serial Numbers: This is a unique number you give to each station you contact. Your first contact in a given contest is 001. Your second is 002. Your third is 003 and so on. On CW, "N" is often used in place of "9" and "E" is sometimes used in place of "5" when sending serial numbers.

State: This should be easy for anyone. On CW, make sure you use the standard two-letter postal abbreviation for your state. Please note that in some ARRL-organized contests, you may be required to give your ARRL "section." "Sections" are the local geographic units of the ARRL field organization. In most parts of the U.S., this corresponds to your state, but the more heavily-populated states of Massachusetts, New York, New Jersey, Pennsylvania, Florida, Texas, California and Washington have been divided into several "sections." If you're in one of those states, contact a local traffic handler or ARRL appointee to find out what your

section is.

Zone: This can be a little tricky, because there are two systems of numbered zones into which the world is divided.

CQ Magazine sponsors an award popular among DXers called "Worked All Zones" (WAZ). This award divided the world into forty "zones" or roughly equal size, numbered from one to 40. These zones are used in the popular CQ Worldwide DX Contests every October and November. For U.S. Amateurs, your CQ zones are as follows:

- Zone 1 - Alaska
- Zone 3 - California and all W7 states, save Montana and Wyoming
- Zone 4 - Montana, Wyoming, Michigan, Ohio, Tennessee, Kentucky, Alabama and all W5, W9 and W0 states.
- Zone 5 - West Virginia, all states in W1, W2, W3 and all W4 states save Tennessee and Kentucky.

Zone 8 - Puerto Rico, U.S. Virgin Islands and other U.S. territories in the Caribbean Sea

Zone 27 - Guam and the Northern Mariana Islands

Zone 31 - Hawaii and all U.S. territories in the Pacific, save those in Zones 27 or 32

Zone 32 - American Samoa

There are a few contests that use the 90 "zones" established by the International Telecommunications Union (ITU), the United Nations agency that regulates radio communications. The most important of these is the HF Championship every July sponsored by the International Amateur Radio Union (IARU). For US Amateurs, your ITU zones are as follows, but you'll need your map to confirm into which you fall:

- Zone 1 - Alaska
- Zone 6 - Continental USA west of 110° west longitude
- Zone 7 - Continental USA between 110° and 90° west longitude, and all of Wyoming
- Zone 8 - Continental USA east of 90° west longitude
- Zone 11 - Puerto Rico, US Virgin Islands and other US territories in the Caribbean Sea

Zone 61 - Hawaii and all U.S. territories in the Pacific, save those in Zones 62 and 63

Zone 62 - American Samoa
Zone 65 - Wake Island, Guam and the Northern Mariana Islands

Grid Squares: These are letter-number combinations that identify your location. Also called "Maidenhead" locators, they are most commonly used by VHF DXers and contesters, but there are at least three HF contests every year that use grid

squares as the exchange and in score calculation. The four-figure (ie. FN25) grid reference identifies your location to within a "square" of one degree of latitude by two degrees of longitude. The six-figure grid reference (ie. FN25bj) identifies your location to within a "square" of 2.5 minutes of latitude by five degrees of longitude. The four-figure reference is most commonly used. You might speak to a local VHF DXer or contesteer to find out the grid square for your location.

Contest of the Month — Worked All Europe SSB

0000 UTC 11 September to 2359z 12 September 1999

(PDT: 5 p.m. Friday 10 Sep. to 5 p.m. Saturday 12 Sep.)

(EDT: 8 p.m. Friday 10 Sep. to 8 p.m. Saturday 12 Sep)

The "Worked All Europe" (WAE) DX Contest, sponsored by the German Amateur Radio Club (DARC), is one of the most interesting contests on the HF bands. It feels like a normal contest, with the typical exchanges of "5-9" signal reports and serial numbers, but there is an additional wrinkle: you exchange log data with other stations. This can be a real challenge to your skills as an operator.

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First and foremost, in the WAE contest, the action centers on Europe. Stations outside Europe may work only Europeans for points and multipliers, and vice-versa. Just as the ARRL DX Contest places Canada and the continental USA at the center, so the WAE makes Europe the focus of attention.

The level of European activity in this contest is very high, but this contest is not so popular outside Europe. Those stations outside Europe who do participate are therefore very popular, and you may find yourself on the receiving end of some very large pile-ups. Some of Europe's best operators troop out for this one, and the standard of operating is very high.

A typical contact in the WAE SSB contest might sound like this:

Station 1: "CQ Contest Uniform Tango Four Uniform Zulu, Uniform Tango Four Uniform Zulu, Contest." (UT4UZ in Ukraine is calling CQ)

Station 2: "November Two Whiskey Charlie Quebec." (N2WCQ replies)

Station 1: "N2WCQ, five nine three four six" (UT4UZ acknowledges N2WCQ, gives a signal report, the ubiquitous 5-9, and indicates that N2WCQ is his 364th contact in the contest.)

Station 2: "Roger, five nine zero six seven" (N2WCQ indicates he has copied UT4UZ's exchange correctly, gives UT4UZ

a signal report of 5-9 and indicates this is his 67th contact.)

Now, at this point, UT4UZ might simply carry on to the next contact, with the WAE offers another option: under the contest rules, stations outside Europe can earn extra points by copying log information from stations outside Europe. Stations outside Europe can earn extra points by sending extracts, so everyone gets something out of the exchange. This is called the "QTC Rule," QTC being the Q-signal meaning "I have traffic for you." Under the QTC rule, those of us outside Europe can report no more than ten previous contacts to any one European station, and you may report any given QSO only once. "QTCs" are arranged in numbered "books." Let's say you are about to send your first set of QTCs in the contest, and you are reporting ten previous contacts. This would be QTC 1/10. Let's say you only have seven unreported QSO to send when someone next asks you for QTCs. Your second "book" of QTCs could be numbered 2/7. Later in the contest, you may have more QSOs available to report, and you can send that station those three in a "book" of three. This all sounds terribly complicated, but it will make sense as you try it out.

So, back to our example QSO above: let's say UT4UZ would like to ask N2WCQ for QTCs. Here's how things might progress:

Station 1: "Thank you. Do you have QTC?"

Station 2: "Roger, I have QTC. Please stand by" (If N2WCQ is using CQ or TR-Log software to log this contest, he can now hit a command and up will pop a window with the information ready for his next book of QTCs. He does so, and the software tells him that he can now send QTC book 6/6 — his sixth book of QTCs, with six previous QSOs to report.) "UT4UZ, this is QTC six stroke six, ready?" (N2WCQ primes UT4UZ for his

QTCs.)

Station 1: "Roger, go ahead."

Station 2: "0334 Golf Four Bravo Whiskey Papa 286" (This indicates that at 0334Z, N2WCQ worked G4BWP, who gave him QSO serial number 286.)

Station 1: "Roger." (UT4UZ copied this correctly)

Station 2: "0335 Oscar Kilo One Romeo India 302" (At 0335, N2WCQ worked OK1RI, who gave serial number 302.)

Station 1: "Roger"

... and so on through, in this case, the sixth report. In every case, you report the time, call sign and QSO serial number you received for each QSO. In effect, you are sending your log to the organizers piece-by-piece. Once you have completed the QTCs in this "book," you say:

Station 2: "That is all, over"

Station 1: "Roger QTC 6/6. Thank you. CQ Contest, Uniform Tango Four Uniform Zulu." and UT4UZ carries on with the contest.

This quirky little rule really makes this contest lots of fun, once you get accustomed to it. The first few times you do it, you will be very confused, but that's how we learn new things, right?

In addition to the QTC rule, you should also know that the multipliers are the countries of the WAE award: DXCC entities in Europe, plus the Bear Island (JW), the Shetland Islands (GM), Sicily (IT9), the United Nations Complex in Vienna (4U1VIC), the European part of Turkey (TA1) among others. As you can see from the rules summary, these multipliers are much more valuable on the low bands, so brave the summertime static crashes and look for Europeans on 80 and 40M.

Give the WAE a try, and don't be shy to try the QTC rule. You can find more information at the organizer's web site <http://www.darc.de/referate/dx/fedcw.htm> in both English and German.

Other contests in September

September features a real mix of contests: for RTTYers, the CQ WW RTTY is the premiere RTTY contest of the year, and a great chance to pick up some new countries for your DXCC on that mode. The *National Contest Journal* runs its fall Sprints, a real challenge to your operating skills. In my homeland of Atlantic Canada, the Atlantic QSO Party has its second running, and you may work more VE1s, VE9s, VO s and VY2s than you have ever heard before. As well, the venerable Scandinavian Activity Contest and the LZ DX Contest should be prime opportunities to work stations in Northern Europe and Bulgaria.

73, and good luck in the contests.

— Dave Goodwin, VE2ZP/VE9CB can be reached via e-mail: ve2zp@rac.ca; packet: VE2ZP@VE3XRV.#EON.ON.CAN.NOAM.

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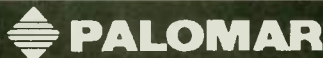
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Contest	Date & Time	Bands	QSO points	Multipliers	Exchange	Ente/ Categories	Entries
All Asia SSB	0000Z 4 Sep 2359Z 5 Sep	160-10m SSB	1pt/20-10m QSO 2pt/80m QSO 3pt/160m QSO Work Asia only	Asian prefixes worked on each band	RS Age (YLs may send 00)	Single op: All bands, Single band Multi-op: Single or Multi-tx	30 Sep Box 377 Tokyo
LZ DX	1200Z 4 Sep 1200Z 5 Sep	80-10m CW	5pt/LZ 3pt/DX 1pt/NA	ITU Zones worked on each band	RST ITU Zone	Single Op: All bands, Single band Multi-op, single tx SWL	1mo. Box 830 1000 Sofia
North American Sprint CW	0000Z 4 Sep 0400Z 5 Sep	80-20m CW	1pt/QSO	Canadian Call areas, US States, other NA countries	Ser# Name QTH	Single op all bands only Entrants may combine their scores to form a "team".	1mo. N6TR
Michigan QRP Club Labor Day CW Sprint	2300Z 4 Sep 0300Z 5 Sep	160-6m CW	5pt/ QSO with member 4pt/DX 2pt/USA and Canada	US States, Canadian Provinces and Territories, DXCC countries Total score x1.25 if you used a home-made TX or RX, x1.5 if all home-brew gear	RST QTH MI-QRP membership number	A- 250mw or less B- 250mw to 1w C- 1w to 5w D- Over 5w out	30 days N8COA
European DX SSB	0000Z 11 Sep 2359Z 12 Sep	80-10m SSB	1pt/Eur 1pt/QTC QTC: reports of previous QSOs Time:Call:Ser#	WAE Countries worked on each band x2 on 10/15/20 x3 on 40m x4 on 80m	RST Ser#	Single Op: All bands, Single band Multi-op Single or multi-tx All entrants may use PacketCluster	15 Oct Box 1126 D-74370 Sersheim Germany or E-mail to wae@c.darc.de
ARRL VHF QSO Party	1800Z 11 Sep 0300Z 13 Sep	50MHz to microwaves	1pt/50 or 144MHz QSO 2pt/220 or 432MHz QSO 3pt/903 or 1296MHz QSO 4pt/above 2304MHz NOTE: do not use 146.52 or any repeaters	Grnd squares worked on each band	Grnd Square	Single Operator Multi-band, single band, QRP portable (max 10w out) Rover (single or multi-op, operating from at least two grnds) Multi-op Limited Multi-op (max four bands)	30 days ARRL or e-mail to contest@arrl.org
North American Sprint SSB	0000Z 12 Sep 0400Z 12 Sep	80-20m SSB	1pt/QSO	Canadian Call areas, US States, other NA countries	Ser# Name QTH	Single op all bands only Entrants may combine their scores to form a "team".	1mo. K7GM
Scandinavia CW	1500Z 11 Sep 1800Z 12 Sep	80-10m CW	1pt/QSO Work JW JX LA OH OJ OX OY OZ SM TF	Scandinavian prefixes worked on each band	RST Ser#	Single Op: All bands, QRP Multi-op single tx	31 Oct EDR
YLRH Howdy Days (for Women hams only)	1400Z 18 Sep 0200Z 20 Sep	80-10m CW, SSB, RTTY	2pt QSO with YLRHmbr 1pt/QSO with others	None	RST	Single Operator only	30 days K0JFO
QCWA QSO Party	1900Z 18 Sep 1900Z 19 Sep	160m- UHF+	1pt/SSB QSO 2pt/CW QSO	QCWA Chapter, Canadian Provinces&Terrs, US States, DXCC countries count once on 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
Atlantic QSO Party	0000Z 19 Sep 2359Z 19 Sep	160-10m CW and SSB	1pt/QSO NB/NF/NS/PEI work everyone; other work only Mar and NF	Maritime countries and Newfoundland federal rdngs. Mar and NF stations also count Provs/Terrs, US states and DXCC countries once, regardless of band.	RST QTH	Single op High Power: Mixed Mode, CW only, SSB only Single op Low Power: Mixed Mode, CW only, SSB only Multi-op High Power: Mixed Mode, CW only, SSB only Multi-op Low Power: Mixed Mode, CW only, SSB only	30 days LCARC, Box 6552 Stn.B Saint John NB E2L 4R9 CANADA
Tennessee QSO Party	1800Z 19 Sep 0100Z 20 Sep	160m-70cm CW, SSB and FM	1pt/phone QSO 2pt/CW QSO x2 on VHF/UHF 100pt/K4TCG club stn	For TN stations: TN counties (95), USA states, Canadian provinces and territories, DXCC countries For others: TN counties only.	RST QTH	Single-operator fixed Multiple-operator fixed Mobile VHF/UHF Outside Tennessee Tennessee Team Outside Tennessee Team	12 Nov W9WI or e-mail to W9WI@bellsouth.n et
CO RTTY Journal WW DX RTTY	0000Z 25 Sep 2359Z 26 Sep	80-10m RTTY	1pt/own country 2pt/other NA countries 3pt/other continents	DXCC + WAE Countries + Canadian Provs, Terrs, Labrador + US States	RST QTH CQ Zone	Single Op: All bands High Power, All Bands Low Power, Assisted, Single Band Multi-op: Single TX/High Power, Single TX Low Power, multi-tx	1 Dec POBox DX Stow MA 01775 USA or e-mail to K1RY@contesting. com or K5DJ@contesting. com
Scandinavia SSB	1500Z 25 Sep 1800Z 26 Sep	80-10m SSB	1pt/QSO Work JW JX LA OH OJ OX OY OZ SM TF	Scandinavian prefixes worked on each band	RST Ser#	Single Op: All bands, QRP Multi-op single tx	31 Oct EDR
VK/ZLOceania SSB	1000Z 2 Oct 1000Z 3 Oct	80-10m SSB	3pt/10m 2pt/15m 1pt/20m 5pt/40m 10pt/80m work Oceania only	Oceania prefixes on each band Score each band separately, then sum scores from all bands.	RST Ser#	Single op all bands Multi-op all bands SWL	6 weeks NZART Box 40-525 Upper Hutt
European Autumn Sprnt SSB	1500Z 2 Oct 1859Z 2 Oct	80-20m SSB	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days I2UIY
California QSO Party	1600Z 2 Oct 2200Z 3 Oct	160-2m CW & SSB	2pt/SSB 3pt/CW Work California only	California Counties (58)	RST Ser# QTH	Single Op: All bands Multi-op, single tx	15 Nov Box 853 Pine Grove CA 95665
Ibero-America Contest	2000Z 2 Oct 2000Z 3 Oct	160-10m SSB	3pt/Ibero-Am. 1pt/others	CE CO CP CR CT CX C3 C9 DU EA HC HI HK HP HR KP4 LU OA PY TG TI XE YN YS YV ZP 3C + their DXCC dependencies on each band	RS Ser#	Single op: all bands, QRP Multi-op single tx SWL	30 Nov Conception Arenal 5 08027 Barcelona
RSGB 21/28MHz SSB	0700Z 3 Oct 1900Z 3 Oct	21.2-21.35 28.45-29.1	3pt/QSO Work UK stations only	UK Post Code areas UK stations will send the first two letters of their post code	RST Ser#	Single op, Single op QRP Multi-op single tx	14 Nov G3UFY
YLRH Anniversary Party CW	1400Z 6 Oct 0200Z 8 Oct	80-10m CW	1pt/QSO on your section 2pt/QSO with others	ARRL Sections, Canadian Provinces and territories, DXCC countries	RST Section	Single Operator only	30 Days K0JFO
VK/ZLOceania CW	1000Z 9 Oct 1000Z 10 Oct	80-10m CW	3pt/10m 2pt/15m 1pt/20m 5pt/40m 10pt/80m work Oceania only	Oceania prefixes on each band Score each band separately, then sum scores from all bands.	RST Ser#	Single op all bands Multi-op all bands SWL	6 weeks NZART Box 40-525 Upper Hutt
European Autumn Sprnt CW	1500Z 9 Oct 1859Z 9 Oct	80-20m CW	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days OK2FD
Pennsylvania QSO Party	1600Z 9 Oct 2200Z 10 Oct 05-13Z Off time	160-10m CW & SSB	1pt/SSB 1.5pt/CW 2pt/160, 80m CW 200pt/QSO with W3YA Work Penn. only	Pennsylvania counties (67) Penn. stations will send a 3-letter county abbrev. x2 if you are QRP	RST QTH	Single op: High power, 100w, QRP Multi-op: Single tx, multi-tx	15 Nov Box 614 St. College PA 16804 USA
RSGB 21/28MHz CW	0700Z 9 Oct 1900Z 10 Oct	21-21.075 28-28.075	3pt/QSO Work UK stations only	UK Post Code areas UK stations will send the first two letters of their post code	RST Ser#	Single op, Single op QRP Multi-op single tx	14 Nov G3UFY

Addresses: CQ - 25 Newbridge Rd., Hicksville NY, 11801 USA; ARRL - 225 Main St, Newington CT, 06111 USA; Callsign - Callbook Address Bands:
The 30, 17 and 12m bands are never used in any contest.

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WORLD RADIO, September 1999 57

Hamfests — September

ARIZONA

Hualapai Amateur Radio Club (HARC) 7th Annual Fallfest/Hamfest 11 September at Mohave County Community College in Kingman. (Exit 51 off I-40, north on Stockton Hill Rd, east on Jagerson Avenue.) Hours dawn to dusk.

Talk-in 146.76 (PL 131.8). Forums, prizes, and testing. For info: Bob Kimbrell, KD7AHO, 520/692-1401; e-mail: kd7aho@arrl.net, or Patsy, KC7TZP, 520/757-7345; e-mail kb7tot@ctaz.com

ARKANSAS

Twin Lakes ARC Hamfest '99, 11 Sept., 8:30 a.m. -12:30 p.m., at the National Guard Armory (Fuller St., Mt. Home, AR). Adm: \$4 (12 and under FREE). Tables: 8ft. \$8, 5ft. \$6.50 includes 1 adm. per table. Set-up: 7 a.m. Talk-in: 147.075(+). For info: Miles Waldron, 20 Terry Pl., Mountain Home, AR 72653-6713. Phone: 870/492-4466. Email: mpwaldron@centuryinter.net.

CONNECTICUT

Candlewood ARA's Hamfest, on 19 Sept., 9 a.m.-2 p.m. at Edmond Town Hall, Rt.6, Newtown, CT. Adm: \$4 (under 12 FREE) Tables: \$10 includes admission. Tailgating \$6. Set-up at 7 a.m. Talk-in: 146.67. Door prizes, refreshments, and

ample parking. For info: Candlewood ARA Hamfest, P.O. Box 3441, Danbury, CT. 06813-3441. Phone: 203/857-7050. Web: <http://www.danbury.lib.ct.us/org/cara/>.

FLORIDA

Dayton Beach Hamfest and Computer Show, on 25 Sept. 9 a.m.-5 p.m. at Embry Aeronautical University. Adm: \$5 Tables: 6 ft \$7, 5 ft \$6, all w/electricity. Tailgating: \$3. Refreshments/lunch, door prizes and flea market. Talk-in: 147.150(+600). For info: John Munsey, KB3GK 19 China Moon Dr., Ormond Beach, FL 32174. Email: munseyj@mindspring.com Phone: 904/677-8179. Fax: 904/677-4936.

ILLINOIS

Bolingbrook ARS Hamfest 12 Sept., 8 a.m., at Inwood Recreation Center (3000 W. Jefferson St.(Rt. 52)), Joliet, IL. Admission: \$4/adv., \$5 at door. Tables: \$12 perimeter w/electricity, \$8 main floor no/electricity. Set-up: 3 - 6 p.m. Sat., 6 - 8 a.m. Sun. Flea market, dealers/vendors, VE exams, door prizes and refreshments. Info: Marti, KA9ZZ, 345 Gehrig Circle, Bolingbrook, IL 60440; 815/436-0559.

KENTUCKY

Greater Louisville Hamfest/ARRL Kentucky State Convention 11-12 Sept. at Bullitt County Fairgrounds. Adm: \$6/adv., \$7/at door. Free parking & overnight camping. For info: P.O. Box 34444-N., Louisville, KY 40232-4444. Vendors/dealers: 812/282-7007. Flea market: 502/935-7197. Web: <http://www.thepoint.net/~gflha/>.

MARYLAND

F.A.R. FEST '99 26 Sept., at Bowie Baysox Stadium, Bowie, MD. Admission:

\$5. Tailgating: \$10. Flea market, computers/electronics and VE exams. Talk-in: 147.105 and 146.520. For info: Al Brown KZ3AB, 301/490-3188, Email: amateur_radio@hotmail.com.

MASSACHUSETTS

MIT Radio Society and MIT Electronics Research Society Flea Market 19 Sept., 9 a.m.-2 p.m. Albany and Main St, Cambridge MA. Adm: \$4. Tailgating: \$10 at door, \$9 advanced. Set-up: 7 a.m. Free parking. talk-in 146.52 and 449.725. For more info call 617/253-3776. For advanced reservations mail W1GSL, P.O. Box 397082 MIT BR., Cambridge MA 02139-7082.

MICHIGAN

Adrian ARC Hamfest/Computer Show, 19 Sept., at Lenawee County Fair Grounds. Adm: \$5. Table \$10. Trunk sales, table sales, vendors and VE exams. Info: Brian Sarkisian, KG8CO; kg8co@LNI.net; www.LNI.net/~W8TQE.

Grand Rapids ARA's Super-Swap 18 Sept., 8 a.m., at Caledonia High School. Tickets are \$5, with truck sales are \$6. Tables: \$8. Set-up: 6 a.m. For info: Ed Novakowski, N8UXN 616/458-9029. Email: barbv@voyager.net.

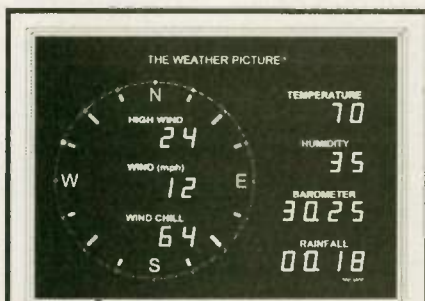
L'Anse Creuse ARC Hamfest, 18 Sept. 8 a.m.-2 p.m. at the L'Anse High School in Mt Clemens, MI (2 miles off I-94 at Exit 236). Adm: \$1 advanced, \$5 at door. Inside Tables: \$10 Tailgating: \$5 Set-up: 6 a.m. Talk-in: 146.420 and 147.080 (+). VE exams, door prizes, flea market, food, and Free parking. Info: Betty McGinn, N8SIH, 810/791-4484 or SASE to: P.O. Box 180072, Utica, MI 48318-0072. Email: Boops@juno.com; Web: www.flash.net/~lcarc/.

The Michigan Section ARRL Convention will be on 24 -25 Sept. at the University of Michigan-Flint. Table: \$10. Tech Forums, VE exams, Seminars and a ARRL Banquet. For info: Debbie Kirkbride, KA8YKK, 1315 Center Apt. 1, Bay City, MI, 48708. Email: ka8ykk@concentric.net.

ARA of Hanson Hills Hamfest 18 September 8 a.m. - 1 p.m. at Crawford AuSable High School, just north of Grayling, MI. Free admission. Tables \$5, NO tailgating! Refreshments, VE exams at 1 p.m. Talk-in 145.13 rptr. For info: Ken Wright, W8CA, phone 517/348-8022, e-mail: w8ca@w8ca.com or George Brand, WA8SCO, phone: 517/786-3198, e-mail: aam5emi@concentric.net.

MISSOURI

Central Missouri Radio Association Hamfest 11 September 8 a.m. - 2 p.m. at Good Time Country facility, (5 mi S of I-



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Hamfests — September

70 on Hwy 63). Adm. \$4, tables \$10, tailgaters welcome. Setup Friday 6-9 p.m., Saturday 6-8 a.m. VE sessions, seminars. Talk-in 147.760. For info: Bruce Odle, KØZY, 3315 Berrywood, Ste. 101, Columbia, MO 65201. Phone: 573/875-5246, email: bruceo@odle-associates.com

St. Charles ARC Hamfest 22 August 6:30 a.m. to 1 p.m. at Blanchette Park, St. Charles, MO. Free admission, flea market spaces \$10, inside \$15. Forums, attendance prizes, raffle prizes. Talk-in 146.67. Info: Ken Fieser, KBØVLN, phone: 314/428-4383. email kfieser@aol.com

NEW JERSEY

South Jersey Radio Association Hamfest/Computer Show 25 Sept, 7 a.m.-2 p.m. at Mount Holly Armory, Rte 38, Mount Holly, NJ. Adm: \$4/adv., \$5/at door. Tables: \$10 or \$15 w/electricity. Tailgating: \$5. Door prizes, auction, fleamarket, dealer/vendors, and much more. For info: Joe Cramer, N2XYZ, P.O. Box 2025, Vincentown, NJ 08088-2025. Phone: 609/268-2135. Email: hamfest@sjra.org.

Delaware Valley Radio Association's FallFest '99 Hamfest, 19 Sept., 8 a.m. at Tall Cedars of Lebanon picnic grove (Sawmill Rd. Hamilton Twp, NJ). Adm: \$6. Non-Ham spouses and children FREE. Table: \$15 includes 1 adm, and some electricity. Tailgating: \$10 includes admission. FREE parking, refreshments and an ARRL table. Talk-in: 146.67 (-). Info: 609/882-2240 Web: www.slac.com/w2zq. Or mail FallFest '99, DVRA, P.O. Box 7024, West Trenton, NJ 00620.

NEW YORK

ARA of the Southern Tier Elmira Hamfest/Computerfest 25 Sept. 6 a.m.-3 p.m. at Chemung County Fairgrounds at Horseheads, NY. Adm \$4 adv. \$5 at the gate. Free flea market. Pancake breakfast at 6 a.m. VE tests 9 a.m. Door prizes. RV/trailer spaces available — free day use, overnight \$15 hookups, \$10 without. Talk-in 147.96/36 - 444.20. Info: (VE test) John, 607/565-4020, (Dealers) Gary, 607/739-0134, (tickets) Dave, 607/589-7495.

Saratoga County RACES Association Inc. Hamfest '99 11 Sept. 7 a.m.-3 p.m., at Saratoga County Fairgrounds, Ballston Spa, NY. Adm: \$5 w/tailgate spot and parking. Tables \$5. TI: 146.40/147.00 and 147.84/147.24. Door prizes, fox hunt, VE exams and food. Info: Darlene Lake, N2XQG, 314 Loudon Rd., Box #84, Saratoga Springs, NY 12866; Phone: 518/587-2385, Packet: n2xqg@wa2umx, Email: lake@capital.net.

OHIO

Greater Cincinnati ARA Communications Expo 99 Hamfest/Electronics show 19 September 8 a.m. - 4 p.m. at Kolping

Center (near the I-275 - U.S. 127 interchange) north of Cincinnati. Adm \$5 adv. (until 10 Sept.) \$8 at the gate. Flea market spaces \$10 ea; 5 for \$40. Indoor commercial spaces \$50 ea; 5 for \$200. Set-up 4 - 9 p.m. Saturday, gates open 6 a.m. Sunday. Prizes, VE session, food, free parking, radio controlled models, fox hunts. For flea mkt and tickets: Tom Denham, K8VOE, 513/779-3951, email tdenham@eos.net. VE reservation: Scott Henninger, W8GS, 513/683-7373, email gshennin76@aol.com. Commercial space: Jim Weaver, K8JE, 513/459-0142, email k8je@arrrl.net.

The Hamfest Association of Cleveland's Cleveland Hamfest and Computer Show will be held on 26 Sept. at the Cuyahoga County Fairgrounds, Berea, OH. Admission: \$5. Tables: \$20. VE exams, flea market, prizes and technical forums. For info: Phone: 800/253-3378 Email: info@hac.org. Web: http://www.hac.org.

Findlay Radio Club Hamfest 12 Sept., 8 a.m.-3 p.m., at Hancock County Fairgrounds (East Sandusky St.(Rt. 568)). Admission: \$5. Table: \$19. Talk-in: 147.15(+), and 444.15. For info: Dave Hoxworth AA8KJ, 443 Scarlet Oak Drive, Findlay, OH 45840. Phone: 419/423-3402.

PENNSYLVANIA

Radio Association of Erie Hamfest, 11 Sept., 8 a.m.-2 p.m., at the Franklin Twp. Firehall. Adm: \$4/adv., \$5/at door. Tailgating: \$1. Tables: \$8, \$10 w/electricity. Set-up 6 p.m.-12 a.m. Fri. Talk-in: 146.01/61. Info: Dr. Tom McClain, N3HPR, 3954 Solar Drive, Erie, PA 16506. Phone: 814/833-1640 Email: tem@erie.net.

Uniontown ARC Gabfest 04 September at the club grounds located on Old Pittsburgh Rd. just north of the intersection of Rts 51 and 119. Starts at 8 a.m. Free parking & free tailgate space with registration. Check-in on 147.045(+) and 147.255(+). Table space available. For more info contact Carl, WA3HQK, or Joyce Chuprinko, KA3CUT, 84 Heaven Hill Rd. Morgantown, WV 26508; 304/594-3779.



WASHINGTON

The Radio Club of Tacoma's Electronics Fleamarket will be on 11 Sept., 9 a.m.-3 p.m. at the Pierce County Fairgrounds, Graham, WA. Admission: \$5. Overnight camping: \$7, \$10 w/electricity. Tables: fleamarket \$20, vendors/dealers \$30. Talk-in: 147.38(+) pl 103.5 or 146.58. Door prizes, displays, FREE parking and VE exams. Info: Roger, 253/475-4293. Email: rtwig@worldnet.att.net. RCT Club House: 253/759-2040. Web: www.w7dk.org.

TEXAS

El Paso Southwest International Hamfiesta 18 September 8 a.m. - 5 p.m. and 19 September 9 a.m. - 1 p.m. at Ysleta Independent Cultural Arts Center, 1600 Sims, El Paso. Talk-in 146.88. For info: Craig Lyles, KC7UXM, 915/821-7501.

The Clear Lake ARC SwapFest'99 will be held 18 Sept., at the Webster Civic Center, Webster, TX. Admission: \$3. Tables: \$6 for Hams, \$15 for vendor. Door prizes, fox hunts, food and demonstrations. For info contact: Bob Biekert, KA5GLX 281/488-2913. Email: ka5glx@clarc.org. Web: www.clarc.org. Or mail Clear Lake ARC, P.O. Box 57714, Webster, TX 77598.

<p>THE ORIGINAL WD4BUM HAM STICK™ ANTENNAS for HF MOBILE OPERATION \$2495 each</p> <p>The only lightweight HF mobile antenna recommended by noted author Gordon West. WB6NOA</p> <ul style="list-style-type: none"> • Monobanders for 75 to 6 meters. • Very rugged fiberglass & stainless steel. • Telescopes for easy adjustment. • 3/8" x 24 TPI base fits most mounts. • Low profile & low wind load. • Needs no springs or guys. • Complete tuning & matching instructions included. • Approximately 7 ft. tall. <table border="1"> <tr> <td>Cat.#</td> <td>Band</td> <td>Cat.#</td> <td>Band</td> </tr> <tr> <td>9175</td> <td>75 meters</td> <td>9115</td> <td>15 meters</td> </tr> <tr> <td>9140</td> <td>40 meters</td> <td>9112</td> <td>12 meters</td> </tr> <tr> <td>9130</td> <td>30 meters</td> <td>9110</td> <td>10 meters</td> </tr> <tr> <td>9120</td> <td>20 meters</td> <td>9106</td> <td>6 meters</td> </tr> <tr> <td>9117</td> <td>17 meters</td> <td></td> <td></td> </tr> </table>	Cat.#	Band	Cat.#	Band	9175	75 meters	9115	15 meters	9140	40 meters	9112	12 meters	9130	30 meters	9110	10 meters	9120	20 meters	9106	6 meters	9117	17 meters			<p>LICENSE PLATE MOUNT</p> <ul style="list-style-type: none"> • Mounts behind license plate • Mount is constructed of type 304 Stainless Steel • Complete with S/S hardware • For Antenna's with 3/8" x 24 Thread • Accepts PL-259 Direct • Ground strap included • Complete mounting instructions included <p>100% MADE IN USA</p> <p>\$4495 CAT. #TM-1</p> 	<p>MOBILE COLINEAR ANTENNAS THE ULTIMATE PERFORMER</p> <ul style="list-style-type: none"> • Honest 4.5dB gain. • 1000 watts DC. • 17-7 ph stainless steel top sec. • Rugged fiberglass base station. • Base fitting is std. 3/8" x 24 TPI. <p>Length 9007 - 146 MHz 7'2" • 9036 - 220 MHz 4'9" 9440 - 440 MHz 2'5"</p> <p>\$2495</p> <p>Base station version available \$3495 9007-B • 9036-B • 9440-B</p> <p>Tri-Magnetic Mount</p> <p>MODEL 375 Only \$3995</p> 
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New Products

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

New products from MFJ

Now you can power your HF transceiver, 144/440 MHz mobile/base radio and accessories with this new streamline-size 25 amp MFJ Mighty-Lite switching power supply! Your buddies won't hear any RF hash on your signal. You



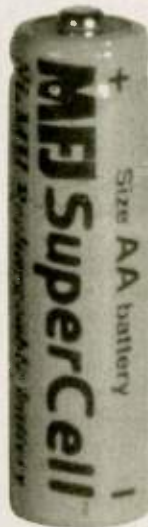
won't hear any in your receiver either! This super clean MFJ Mighty-Lite meets all FCC Class B regulations. Less than 35 mV peak-to-peak ripple under 25 amp load. Load regulation is better than 1.5% under full load. This new power supply features:

25 amps maximum surge, 22 amps continuous, super-light at only 3.5 lbs., Super-compact — 5 1/2" W X 2 1/2" H X 10 3/4" D. It has heavy-duty binding post for high current transceivers, speaker-type terminals for low current accessories, over-voltage protection, over-current protection and a quiet internal cooling fan. The power is switchable input voltage — 110 or 220 VAC and will work with AC input from 85 - 135 VAC or 170 - 260 VAC. The MFJ-4125 Mighty-Lite power supply has a suggested retail price of \$109.95, and is protected by the MFJ "No-Matter-What" one year limited warranty.

MFJ's new VHF/UHF SWR/Power meter is perfect for mobile rigs. It can handle 200 watts and measures SWR and power in

three power ranges — 15W, 60W and 200 Watts. The multi-colored meter is easy to read. Insertion loss is 0.3 dB or lower with 50 Ohm impedance. Its compact size, 3 3/4" W x 3" H x 1 1/4" D makes it great for HT or mobile rigs. It easily connects in-line with SO-239 connectors. The suggested retail price

for the MFJ-844 SWR/power meter is and comes with the added protection of the MFJ "No-Matter-What" one year limited warranty.



MFJ's super Ni-MH "AA" batteries have twice the power of standard Ni-Cads. These 1200 mAh, 1.2 volt batteries greatly extend the operating time of your electronic devices. MFJ Ni-MH "AA" batteries have no detrimental memory effect that are the trademark of Ni-Cad batteries so you can use them to their full potential. These new batteries are the perfect companion for your MFJ-259B SWRAnalyzer with its built-in battery charging circuit. Use the MFJ-259B up on a tower with these new batteries and then you can quickly charge them when you get home. The MFJ-92AA1 batteries are \$2.99 each or you can order the MFJ-92AA10 ten-pack for \$24.95

Ladder Crystal Filters

by John Pivnichny N2DCH

MFJ

A new 136 page book, "Ladder Crystal Filters," by John Pivnichny, N2DCH is now available from MFJ. This is the only book devoted entirely to design and construction of crystal filters using crystals of just one frequency. These filters are used in shorwave and Amateur Radio receivers and transmitters. Amateurs and professional designers will benefit from the comprehensive description of all types of ladder

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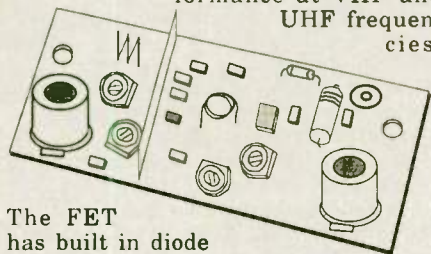
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New Products

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Hamtronics preamps & preselectors

Hamtronics, Inc. offers a new set of low-noise receiver preamps. The new LNY series of preamps is a replacement of the highly popular LNW series, and is another low cost preamp which is designed to mount in the cabinet next to the receiver board. It uses a new low-noise MOS FET specifically optimized for best performance at VHF and UHF frequencies.



The FET has built in diode protection and very low feedback capacitance, resulting in good stability and rugged performance under a wide range of voltage, signal and load impedance conditions. Surface mount technology is used to obtain minimum noise figure and best stability, but the design allows for easy repairs if necessary.

The LNY preamps are easy to install and have special rf-type RCA jacks for the coax connections. The PC board is only 1 X 2 1/2 inches, and the unit operates on +12 to +15Vdc at 10mA. The PC board even has provision to add an rf choke to allow the B+ to be fed up the coax when necessary so the preamp can be installed at the antenna without extra power wiring.

Models are available for all popular bands from 28MHz to 470MHz, and alignment for your frequency is very easy. Gain ranges from 18 to 26dB, and noise figure ranges from 0.6 to 0.8dB, depending on frequency range. Best of all is the price — only \$29 for a factory wired and tested unit.

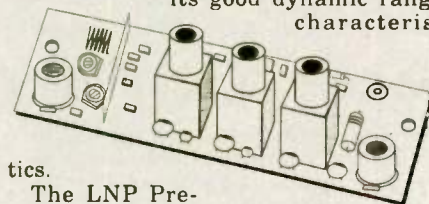
Hamtronics, Inc. also offers new low-noise receiver preselectors. If you are having problems with a VHF receiver, these new preselectors may eliminate it. Nearby FM broadcast stations, paging transmitters, or other strong out-of-band signals can overload the front end of your receiver. Adding just a filter ahead of a receiver may block the interfering signals, but it will degrade the sensitivity of the receiver because of its insertion loss. However, the new LNP series of preselectors has been designed with a low-noise preamp ahead of the filter to establish a low noise figure before the signal reaches the filter.

The filter circuit comprises a sharp three-pole L-C filter which is optimized

ter. The book is priced at \$14.95.

To order any of these MFJ products or to find your nearest dealer, call 800/647-1800, or fax 601/323-6551. Email: mfj@mfjenterprises.com, or check out our catalog on our website at: <http://www.mfjenterprises.com>.

for the particular band of interest. This is in addition to the input filter in the preamp circuit. The preamp circuit provides just enough gain to override the insertion loss of the filter circuit with a little to spare so the receiver can maintain its good dynamic range characteristics.



tics.

The LNP Pre-selector uses a PC board with RCA style jacks. normally, the preselector is installed in the enclosure with the receiver, inserting it in the 50-ohm signal path between the antenna and the receiver input. It's easy to install and has special rf-type RCA jacks for the coax connections. The PC board is only 1 X 3 1/2 inches, and the unit operates on +12 to +15Vdc at only 10mA. The PC board also has provision to add an rf choke to allow the B+ to be fed up the coax when necessary so the preselector can be installed at the antenna.

Models are available for all popular bands from 132 to 180 MHz, including the 137 MHz weather satellite band and the 144 MHz amateur band. Alignment to your frequency is very easy. Net gain nominally is 8dB, and noise figure is 0.6dB. Best of all is the price — only \$39 for a factory wired and tested unit.

For more details, you can view the entire Hamtronics catalog at their website: <http://www.hamtronics.com>. For a printed catalog, you can write to Hamtronics, Inc. 65 Moul Rd. Hilton, NY 14468-9535, or call 716/392-9430, or email jv@hamtronics.com.



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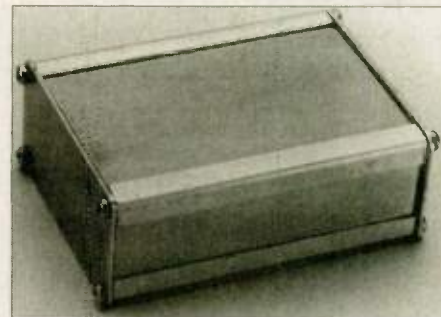
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First Call Communications is proud to announce Big Boy rotators by Prostel — the next generation of antenna rotators using advanced double-worm gear technology and solid state components. From the commercial and amateur overseas market comes a professional line of rotators designed to perform under tremendous stress and abnormally big antenna loads with the largest rotor handling up to 81 sp. ft. (perfect for those 80M beams and large stacked arrays). The Big Boy rotator line offers three different models, each with braking, rotating and starting torque specification that surpass any rotator sold on the market today. Up to this

point, the weak link of any tower and antenna combination has been the rotator.

Complete information, specification and prices can be found on the First Call Communications website at: <http://www.firstcallcom.net/bigboy.html>.

The manufacturer offers a full 2-year warranty with parts and service available through First Call Communications.

For further information, contact Joel Kornreich of First Call Communications at 800/HAMTOWER (800/426-8693, 914/352-0286, fax: 914/357-6243 or e-mail: firstcall@cyburban.com

First Call Communications, Inc. 32 Grove Street, Spring Valley, NY 10977

HI-RES R-390 Video

HI-RES Communications, Inc. has just introduced a new addition to the famous Collins video library. The new R-390A Addendum Video is a direct result of feedback from many R-390A Video users. Two years ago, HI-RES Communications brought out the R-390A video, featuring Chuck Rippel, WA4HHG, covering an incredible array of information on the famous R-390A receiver. This was a seven hour video, covering everything from "How to pick out an R-390A" to "Mechanical and Electrical Alignment" and "Restoration." But users wanted more! The R-390A Addendum Video is another 3 hours and 40 minutes of serious heavy metal

information. Some of the topics covered are new, some have been revisited in more detail. These include more "General Information", a more detailed "Circuit Description", more "PTO" talk, "Quick Checks" to quickly establish the electrical condition of a R-390A, an even more detailed rebuild of the "RF Deck", more "Power Supply" and "Restoration" considerations and more "R-390A Accessories."

If you found the information in the original R-390A Video interesting, you'll find the R-390A Addendum indispensable! Chuck continues to demystify this classic boat anchor of a receiver. This video is a bargain at only \$49.95!

As always, purchasing any three or more videos from the Collins Video Library qualifies you for a 10% package discount.

For mail orders, add \$4.50 each for the first two videos for shipping in the USA. Additional videos are shipped at no extra charge. Outside of the USA, shipping is \$10 per video.

For more information, contact: Floyd Soo, W8RO, HI-RES Communications by email at: info@hi-rescom.com. Additional information is available on the HI-RES Communication webpage at: <http://www.hi-rescom.com>.

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VE Exams

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 regis-

tration, 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.

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CQ Kids Day!

Mike Pilotti, KF3CD

I invited a group of neighborhood kids to join me and my two sons in my shack for Kids Day in June. Every one got to exchange the standard information, including favorite color, and then chat with kids in several other states. The upper part of 20 Meters was JAMMED with kids talking and stations

calling CQ Kids Day! I don't know who had more fun, me or the kids! I sent a direct QSL to all contacts that were kids and included a stamped and addressed return envelope from each kid that participated so that each of them should personally receive a direct QSL. We can't wait for the next Kids Day in January!

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Amateur Radio — from a girl's point of view



Sarah Wisotzkey, KBØZRV

Who was your first contact? A girl? If it was, how cool! If not, how often do you talk to a female? Probably not that often. I haven't talked to very many girls in my years of being a Ham. This is my story of becoming licensed and being one of the few females in the hobby.

It all started with my dad. One day he came home with the mail. When I first saw him, he had a grin on his face — this scared me a little. You see my dad is a big jokester, and that look on his face usually

means he's up to something. He then told me he had just gotten his license. Well, being only six years old, I was confused. My dad was already driving — didn't he already have his license? I asked him what he was talking about. He explained to me what he had meant and more about this wonderful hobby that he was a part of. He had always enjoyed it, but had never gotten his call until then. I told him that I wanted to try this. He said that was fine and that he would look into getting me into a kids' club. I was pretty happy and a bit nervous.

When he found out more information about how to help me get my call, he jumped at the opportunity. You see, my dad is a member of the Boulder Amateur Radio Club, known as BARC. BARC has a club for kids called BARC Jr. My dad told me I could go to a meeting on the upcoming Saturday. I was again happy and nervous. What would this place be like? Who would be there? I would soon find out that it was great!

When that Saturday came, I wasn't sure if I wanted to go or not. I went with my dad and was amazed. I saw NO other girls! Being seven years old by that time, I was very intimidated by all of the boys there. I thought at that point that I wouldn't go again after that day — way too many guys. After meeting many of them, I realized how nice and considerate they all were. I then changed my mind. I became friends with many of them and was motivated to

get my license — at the age of 10. I was happy when I did, and I still am glad that I did. However, there were times when I didn't want to be a part of Amateur Radio because there weren't really any girls to look up to.

Becoming a Ham was probably one of the best things that I could have ever done for myself. It's helped me in school, at home and while I'm baby-sitting. When I baby-sit, I have a radio. If I need help or something happens, I can contact either the parent(s), the police or whatever is needed. My parents enjoy knowing that, and the parental units of the children have a higher comfort level with me baby-sitting their kids. Because of that, I get more jobs and a bit of a money bonus! (Which, I may add, is so cool!)

I'm also better in Math. Before I was involved with Amateur Radio, I got all Cs and Ds on papers. Now, I have just passed my Honors class. This shows that Amateur Radio has helped me a lot.

I even got to go to the Dayton Hamvention to give a talk at the well-known Youth Forum. I spoke about being one of the few females involved. I hope I motivated some girls, and guys, to become licensed or get a girl licensed. And hopefully, I'll hear more females out on the air!

For all of the girls out there, don't give up! You can do it if you don't worry that much! You should feel special being one of the few YL Hams. I did it, and it's been great. Good luck!



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