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WORLDRADIO

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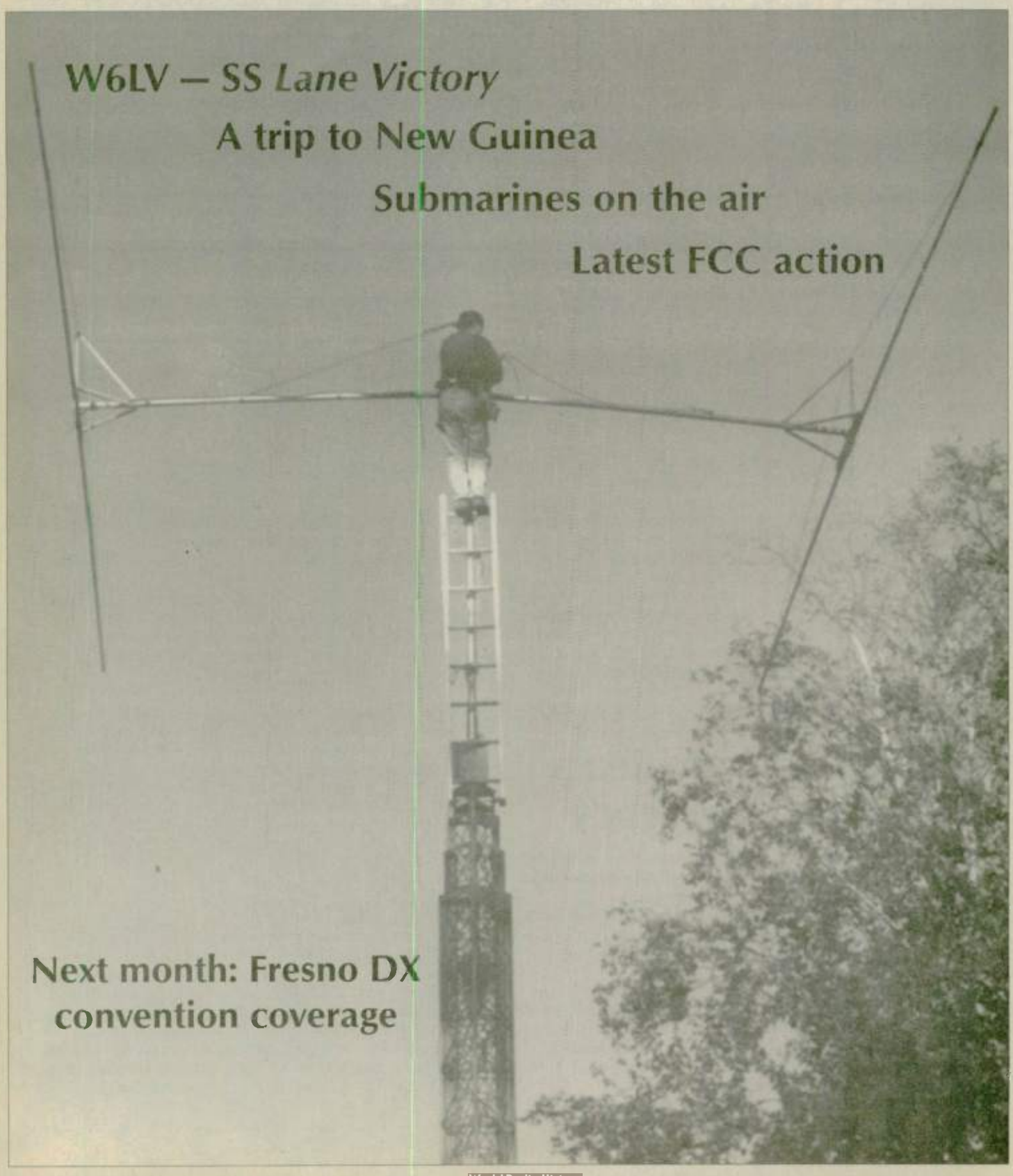

W6LV — SS *Lane Victory*

A trip to New Guinea

Submarines on the air

Latest FCC action

Next month: Fresno DX convention coverage

FCC crackdown continues

The FCC crackdown against amateurs who cause problems for other radio amateurs continues. Warning letters have gone out to another group of amateurs who the FCC alleges to be in violation of the Part 97 Amateur Service Rules. One will even have to stand for re- examination.

The letters from Riley Hollingsworth went out to a half dozen amateurs and cover a wide variety of alleged infractions. These range from warning a Novice class Ham that someone has been heard using his call on the 2-meter band to more serious charges against a radio amateur alleging the transmission of words that Hams are not supposed to use on the air.

In a letter sent to an Illinois amateur, the FCC accuses him of transmitting profane and indecent language. It also claims that on 13 March he was heard on 20 and 75 Meters apparently broadcasting, harassing other licensed amateurs and preventing the legitimate use of the frequencies by others.

This Ham is told that he is apparently in violation of the rules relating to the transmission of indecent or profane language. This, says Hollingsworth, is contrary to the very basis and purpose of the U.S. Amateur Radio service as outlined in rule number 97.1 and a violation of several other Part 97 regulations as well.

Another of those singled out by the Commission is a Georgia amateur that the FCC seems to consider as using bad on-air operating procedures. The letter to him states that he, or someone using his call sign, was deliberately interfering with and jamming radio communications on the 75-meter band. The FCC letter also says his call sign was also heard on 2 Meters coordinating these activities with another station in his area. Hollingsworth says the coordination was taking place on 144.350 MHz and was aimed at interfering with other legitimate operators on 3.898, 3.900 and 3.901 MHz.

Yet another letter goes to a Granite City, Illinois Ham. It's a second notice to him and again warns the Technician class license operator to cease his operations on the 20 and 40-meter bands. Hollingsworth warns that operation of radio transmitting equipment on a frequency for which the amateur is not licensed is a violation of Section 301 of the Communications Act. He tells the amateur that he could be hit with a stiff fine or sent to prison if this alleged activity is not stopped.

Another amateur has been told that he must stand for a re-examination. The FCC has directed Joseph Walker, W8JCW, of Gaylord, Michigan, to retake his General and Advanced class amateur examinations under the auspices of an ARRL Volunteer Examination team. If he declines to take the retest the FCC says it will cancel his license and forbid him to operate on the air. — *Newsline*

South African amateurs respond to emergency

South Africa's Hamnet emergency communications net work went to full alert in response to the serious flooding in and around the city of Durban.

More than seven inches of rain fell in the Durban area 04 February in less than an hour. The deluge caused roads to be blocked and houses to be washed away. Local emergency services in many areas were inundated with calls.

Amateur Radio operators set up an emergency communications net on a repeater in the Durban area. Martin Harper, ZS5VO, was its coordinator with the net staying on full alert until 07 February. The South African amateurs are credited with providing valuable backup communications through their well established links with the emergency services.

South Africa's Hamnet says that it is well prepared to respond to any emergency. — *SARL, Newsline*

DXers investigated

The U.S. Postal Service is reportedly investigating about a half a dozen U.S. Amateur Radio operators for alleged postal fraud. This is a result of the way that they allegedly prepared Self Addressed Stamped Envelopes sent to QSL managers of DXpeditions.

The inspectors are trying to determine if the hams deliberately misplaced postal stamps in such a way as to avoid being automatically canceled and making them reusable at a later date.

The investigation is being coordinated by the Postal Inspector in Phoenix, Arizona where the alleged fraud was uncovered. The inquiry reportedly includes radio amateurs residing in New Jersey, Ohio, Massachusetts, Connecticut, Kentucky and Florida. A number of overseas amateurs are also alleged to have taken part in the scheme. — *Newsline*

YHOTY nominations close 30 May 1999

The nominating period for the 1999 Newsline Young Ham of the Year Award is now open, with 30 May the last day for nominations to be postmarked for consideration in this year's program.

The Newsline Young Ham of the Year Award is open to any young U.S. radio amateur under the age of 18 and living in the 48 continental United States. Those nominated will be judged based on their overall involvement in Amateur Radio and their contributions through Amateur Radio to society.

Thanks to Yaesu USA Corporation, this year's winner will receive an expense-paid trip to the Huntsville Hamfest in August where he or she will receive the award. The winner also gets to spend a week in Spacecamp Huntsville as the guest of *CQ* Magazine.

A nominating form is required. It is available free of charge at www.arnewsline.org. Forms are also available for a self-addressed stamped envelope to the Newsline Young Ham of the Year Award, 28197 Robin Ave., Santa Clarita, CA 91350. — *Newsline*

E44DX log search

The historic first DXpedition to E4 by W3UR, OH1RY, OH2TA and OH2BH, ended up putting nearly 34,000 contacts in the log during seven days of operation in February from Gaza City, Palestine. QSL E44DX via OH2BN. An online log search now is available at the official E44DX Web site. The same log search database also may be searched via e-mail. Send a message to e44dx-log@n4gn.com with your call sign at the beginning of the Subject line. The body of the message should be blank. — *N4GN, ARRL Letter*

On the cover

John Munroe, W7KCN, sent this photo as his entry in our contest. That's John adjusting the back brace on his 40-meter beam. John wins a three-year subscription to ***Worldradio***.

SS Lane Victory

Another example of combining Amateur Radio and maritime history.
— **page 6**.

Backcountry Adventure

A four hour hike into the woods of Idaho and you're at the ideal(?) location for QRP.
— **page 12**

WP2Z

Good friends from around the country gather for the CQWW Contest from hurricane alley.
— **page 18**.

WORLDRADIO

May 1998 Year 28, Issue 11

Features

Departments

Next month: 10-10 International News, Club Huddle, Computers & Basic Stuff, Mars, Positively CW, Wires & Pliers and YLs on the Air.

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Editor's Log

In everyone's life, a certain point is reached when one reflects on days gone by, and you wonder, "What if I had done this?" How would that one action that you did not take affect the rest of your life? Sure, we have all said that over something we neglected to do in the past. But thankfully there are a few forward-looking individuals who don't have to ask that question. They have taken the step to become Lifetime subscribers to ***Worldradio***! Wouldn't it be nice if you, too, could say, "Been there, done that." Just do it!

Our newest members of that exclusive club are:

- **Charles S. Davis, KA4RBN Cornelia, GA**
- **Mark Tondi, N9VD Peru, IL**
- **Gary Bright, W9WF Flora, IL**
- **Samuel Lynch, KC7JRU Scottsdale, AZ**
- **Lowell K. Burnett, KQ6JD Orange, CA**
- **James S. Shaw, WA6PXU Cupertino, CA**

•

On 25 February, the FCC ordered the K7IJ repeater system in the San Francisco Bay area off the air for 120 days effective at midnight, local time. This repeater system has been the home for non-licensed operation, playback of recorded cellular, cordless and landline telephone calls, music, animal noises, obscenities and relentless jamming. This behavior was the result of a trustee not being in the area (he lives in Carson City, Nevada) and the failure of the control operators to do their job. Bill Pasternak, WA6ITF, our FM and Repeaters columnist presents the story this month.

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One area of Amateur Radio that excites me is the Amateur Radio clubs. Many, many clubs have a fine record of public service as well as introducing prospective Hams to our hobby. In addition, many of them offer classes, not only for their members, but are willing to put on a class just about anytime, anywhere.

But, there is a problem. The club license system, reinstated not too long ago, seems to be out of control. As an example, I recently checked the new club listing for a day in March. On this particular day, there were 29 clubs listed. One individual, living in Honolulu, was granted club licenses listing him as the trustee for four clubs. So what, you say. Well, this individual lives in Honolulu, and his clubs are in Washington, DC, New York, NY, and Saipan. How in the world can he get to these club meetings?

But that's just the tip of the iceberg. I am sure there are lots of calls assigned that aren't legitimate. For example, there is a gentleman living in the Los Angeles area who is the trustee of 38 clubs! Why is one individual trustee of 38 clubs? I don't really know. I have an idea, though. Of these 38 clubs, 18 of them have vanity 1X2 or 2X1 calls.

Way back in the late 1980s when the Internet was first gathering steam in the public domain, several wise individuals started collecting domain names. A domain name is something like www.abigcorporation.com. These individuals had foresight and realized the potential of the Internet, so they bought domain names like www.gm.com, www.generalmotors.com and www.ford.com. When these big corporations decided to establish their own websites, the obvious domain name was already assigned to one of these individuals. Rather than change the name to something else, these corporations paid the individuals thousands and thousands of dollars to purchase the domain name.

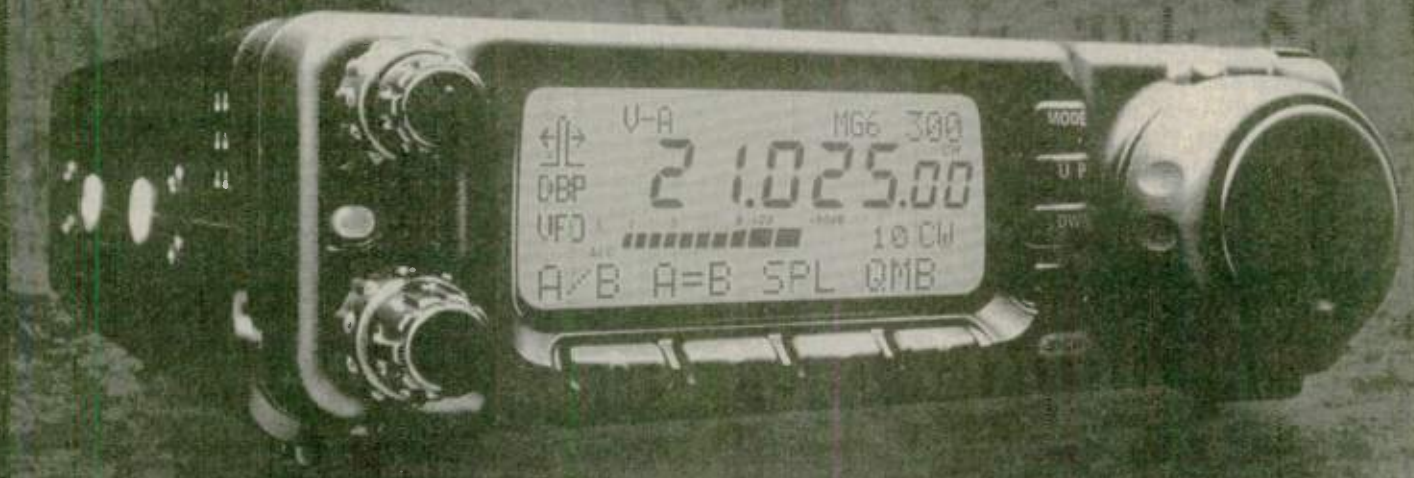
Could this be what is happening to the vanity call signs? Imagine that you have studied hard, taken all the tests and have made it to the Amateur Extra license class. Now, you would like to have a 1X2 or 2X1 vanity call but it's already assigned. Are Vanity calls being hoarded for future monetary gain? I don't know. Would someone please explain the need for an individual to hold 38 calls? I don't get it!

•

Some of you may be reading this at the Dayton Hamvention. We will be giving out several thousand free copies of this issue at the biggest gathering of Amateur Radio operators in the world. Stop by our booth and share some of your experiences with us. If I'm not there, I'll be on 146.555 simplex roaming the grounds, pressing flesh and having the time of my life. On Saturday morning you'll find me looking for treasures at the flea market. If you see me, be sure to say hello! I'd like to meet you, hear your stories, your complaints and get any fresh ideas for ***Worldradio*** that you may have. After all this is your magazine. — *Rick, WF6O*

HF ENTHUSIASM

Yaesu, Choice of the World's top DX'ers



Over 40 years of experience in HF transceiver design has firmly established Yaesu as the choice of the world's top DX'ers. The knowledge that produced unequaled RF technology and design that is found in the State of the Art FT-1000MP can also be found in the miniature FT-100. The FT-100 while small in size 6.3"×2.1"×8.1"(160 W×54 H×205 D mm ;w/o knob) is large in features and performance. This is accomplished by using the most advanced manufacturing techniques and component mounting technology. High Dynamic range RF front-end technology and Advanced Digital technology such as DSP sets a new standard of receiver performance for miniature HF transceivers. The single piece die cast frame, dual cooling fan system and revolutionary RF high power design technique keeps the FT-100 running cool and smooth in the most adverse operating environments. (TX Power output=100W HF, 50W VHF/20W UHF) The TX Equalizer offers crisp, clear and clean TX audio reproduction that until now was only found in top of the line HF base stations. The optional ATAS-100 (active tuning antenna system) ushers in a new age of mobile and field day operation (from HF to UHF frequencies). Add the optional ATBK-100 base kit (Good for limited space, simple setup.) and you've got a base station that ranks among the best in the world.

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  TX : 160-6 m/144-148 MHz/430-450 MHz
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- DSP Bandpass Filter, Notch Filter, Noise Reduction, and Equalizer
- IF Noise Blanker
- IF Shift
- SSB, CW, AM, FM, AFSK, Packet (1200/9600 bps) operation
- Detachable Front Panel
- Two Antenna Jacks (HF/50 and 144/430)
- VOX
- Dual VFOs
- Available IF bandwidths of 6 kHz, 2.4 kHz, 500 Hz, and 300 Hz (6 kHz, 500 Hz, 300 Hz filters optional)
- Built-in Electronic Memory Keyer
- Speech Processor
- Built-in CTCSS and DCS for FM operation
- Automatic Repeater Shift and Auto-Range Transponder System
- Smart Search™ Automatic Memory Channel Loading System
- 300 memory Channels
- Quick Memory Bank (QMB)
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SS *Lane Victory* — W6LV

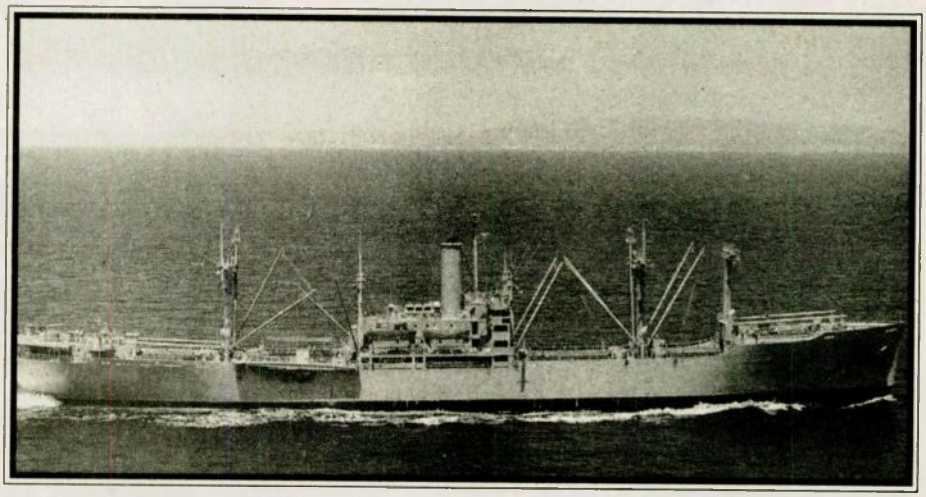
A typical summer day in Southern California was the setting for my visit to another piece of maritime history. The SS *Lane Victory*, currently the only Victory ship on public display, has taken her place as a must-see for Amateur Radio operators in San Pedro, CA.

The *Lane Victory* was built in 1945 in Los Angeles. She was built in the wartime fashion of using prefabricated sections joined together, and was built in a matter of weeks. She has a very rich history. She served in the waning days of WWII and was sent to the Reserve Fleet until being recalled for action in the Korean War. At the end of that conflict, *Lane Victory* was sent back to the Reserve Fleet and recalled again for the Viet-Nam War. After the war came to a close, *Lane Victory* was sent to the Reserve Fleet in Suisun Bay, California.

In 1986, Mr. Joseph Vernick, president of the Merchant Marine Veterans of World War II, met with Congressman Glenn M. Anderson of California, and the idea of preserving a Victory ship as a memorial to Merchant Marine veterans began to take root. On behalf of the Merchant Marine veterans, Congressman Anderson introduced a bill for the acquisition of a WWII cargo ship to be established as a Merchant Marine Museum. In 1988, the bill passed on a unanimous vote. The bill conveyed full title of the *Lane Victory* to the MMVWWII. The bill was signed by President Reagan 18 October 1998, and on 07 June 1989, the MMVWWII received the "pink slip" (Deed of Gift) from the Maritime Administration.

After President Reagan signed the bill, there was a huge effort to get the ship to San Pedro. But before the trip came lots of work. With no modern machinery aboard, and no chance of obtaining spare parts on the open market, permission was granted for the MMVWWII to "cannibalize" other Victory ships in the Reserve Fleet for spare parts. The U.S. Navy provided heavy lift barge cranes to help with the effort. Numerous parts were obtained including a spare 19-foot propeller. With the holds full of spare parts, the ship was towed to San Pedro by an ocean-going tug provided by the Maritime Administration. The ship arrived in Los Angeles harbor 12 June 1989, and a massive restoration by hundreds of dedicated volunteers got underway.

The *Lane Victory* was refurbished from the bilges to the flying bridge, and was restored to operating condition. During the refit one of the cargo holds was converted into a museum and gift shop. As a part of the museum, an Amateur Radio station was authorized and has been installed in a small room in the museum area. The new vanity call sign is W6LV.



SS *Lane Victory* a veteran of three wars underway on one of her summer cruises.

On the day of my visit, the *Lane Victory* was crowded with visitors anxiously looking forward to the visit. Every summer the *Lane Victory* gets underway for a cruise to Catalina Island. This was the last cruise of 1998, and it was a memorable experience. Each cruise (three weekends each year) is a trip into the past. All of the crewmembers are volunteers. Most of the crew are veterans of the Merchant Marine, and are eager to share their experiences with the guests. Just about every area of the ship is open to visitors, from bilges to the pilot house.

Of course, the Amateur Radio station was the first stop. Bill Marple, AA6ZW, is the operator on these cruises. He uses a Yaesu FT-767 and long wire anten-

Bill Marple, AA6ZW explaining Amateur Radio operation to a visitor to W6LV.

nas. There is also 2-meter gear in the shack. While this was a spartan installation at the time of my visit, there are big plans for the Amateur Radio installation in the future. More equipment and funding is being sought to make this a first class station. During my visit Bill made contact with about 40 stations on HF.

One surprise awaited me on my trip around the ship. Located on the O-2 deck is the commercial radio installation. It uses the same HF equipment that was used during World War II, and it is all operational. The original call sign, KECW, has been reassigned to the *Lane Victory*. During my conversation with the radio officer, a blast from the past came from the speaker. KFS, the Globe Wireless station for the West Coast, came on 500 kHz with "CQ CQ CQ de KFS KFS KFS TFC LIST 436 KHZ DE KFS VA." I then told the radio officer that I would wait if he wanted to go down and copy the traffic list. He gave me a puzzled look and said, "You copied that?" I then explained to him that I had been a Radioman in the Coast Guard, and had been on the 500 kHz position for many years at NMC. We then talked for about an hour about Morse code and its demise in the Merchant Marine.

Shortly after, it was time for a buffet lunch served on deck. During lunch, an announcement was made that a "Nazi spy" had been found on the ship, and it was not clear if he was able to radio to his superiors the location of the ship. The crew was told to be on alert for air attack at any time. The spy had been "captured" and was paraded around the decks for all to see. He is a volunteer and he looked mighty impressive in his authentic WWII German uniform.

Half an hour later, the ship came under "attack" by members of the Condor Squadron from Fullerton, California. It's quite a show, with members of the crew "firing" 40 mm and 20 mm anti-aircraft guns as well as .50 caliber machine guns. It's really quite a show for the guests, as well as the numerous small boats and yachts that were completely surprised by the "attack."

All too soon, the trip was over, and the *Lane Victory* was back at the pier in San Pedro. This is a trip that everyone should take. It's a journey into the past, and what it was like for the Merchant Marine sailors and the Naval Armed Guard attached to the *Lane Victory* in World War II.

The ship is open year-round for dockside visits from 9:00 a.m. to 4:00 p.m. Cruises for 1999 will be on 17 and 18 July, 14 and 15 August and 11 and 12 September. W6LV is on the air during the cruises on the HF bands. Amateurs are encouraged to visit the shack, but guest operators must be a member of the MMVWWII. Membership is now open to anyone who has an interest in maritime history.

For more information, you can write or call the *Lane Victory* at: SS *Lane Victory*, P.O. Box 629, San Pedro, CA 90733-0629, phone 310/519-9545 or fax 310/519-0265. There is a web page at: http://www.lanevictoryship.com. QSLs for contacts with W6LV go to this address, attention: "QSL manager."

The *Lane Victory* is currently the only Victory ship open to the public, but she will soon be joined by two of her sisters. The SS *Red Oak Victory* is currently undergoing refurbishing in Richmond, California, and the SS *American Victory* is being obtained from the Reserve Fleet at James River for preservation and display in Tampa, Florida. — *Rick McCusker, WF6O*

David Splitt, KE3VV

What can the FCC do to me?

Last month's discussion of the change in FCC enforcement practices produced some interesting email, including a few horror stories of long-running feuds over frequency "rights" and intentional QRM battles that make the Hatfields and McCoys look like good neighbors. Without exception, the email usually included a request to hear more about the law. I realize that, although the many FCC regulations governing amateurs are widely publicized (and some parts are included in FCC exams), very little attention is given to the underlying statute enacted by Congress in 1934 to govern the use of radio communications in the United States. For example, the ARRL web page (and other web pages) has a link to the rules that are contained in the Code of Federal Regulations (CFR). But I have not yet found an Amateur Radio website that either has a copy of (or a link to) the statutory law in the Code of Laws of the United States (also known as the U.S. Code or USC). For that reason, I am going to quote several sections of the Code verbatim in this column, so ***Worldradio*** readers will have an authoritative reference.

The law contained in Title 47 of the USC is basically the codification of the Communications Act of 1934, as well as the amendments to that Act passed by Congress in the years since then. In addition to a specific list of no-no's, Title 47 also contains substantial penalties that can be assessed against violators. As you will discover, the FCC and its Compliance and Information Bureau (CIB) have some real heavy-duty law backing them up and can do a lot more than send warning letters and slap the wrists of amateurs who abuse the privileges of their licenses.

What's Malicious?

The hot topic for most amateurs concerned about poor operating practices is QRM. The basic law prohibiting willful or malicious interference is codified in Title 47 USC, Section 333. It says that "No person shall willfully or maliciously interfere with or cause interference to any radio communications of any station licensed or authorized by or under this chapter or operated by the United States Government." Simple enough. But why the use of both "willful" and "malicious"? Isn't that repetitive? Not really. The meaning of "malicious" is pretty obvious, but the term "willful" includes acts that are done on purpose which aren't necessarily done with the intent to do harm. In other words, as long as you do something on purpose that creates interference, even if you aren't being mean or malicious, it can still be a violation of the law. For example, tuning up or calling 'CQ' on a frequency without listening first is not necessarily malicious. A lot of amateurs who do this are just being lazy or careless. But it is, nevertheless, "willful," and is illegal. In other words, saying that you didn't mean to cause interference is no defense because you did INTEND to tune up or call 'CQ' on that frequency.

By the way, any of the rules on interference you see in the FCC regulations are specifically authorized in the statute. This is true of all FCC rules. They have to have some basis or authority in the law enacted by Congress (and the Congress has to have authority to pass the law based on some part of the U.S. Constitution: in this case it is the so-called Commerce Clause). Title 47 U.S. Code, Section 303(f), says, "...the Commission from time to time, as public convenience, interest, or necessity requires, shall make such regulations not inconsistent with law as it may deem necessary to prevent interference between stations and to carry out the provisions of this chapter." But, as we shall see, the basic prohibitions are all contained in the statute.

Power limitations

One question that popped up in several inquiries (the call signs are withheld to protect the potentially less than innocent) was the use of power. It also happens to be one of my pet peeves. The prevailing opinion among a lot of Amateur Radio operators seems to be that, "as long as I am authorized to use up to 1500 watts, I can use it any time I want." If you believe this, the law is not on your side. In fact, Title 47, U.S. Code, Section 324 says, "In all circumstances, except in case of radio communications or signals relating to vessels

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 1 March 1999.
For more information about the sequential call sign sytem, see Fact Sheet PR5000 #206-S dated August 1996, or contact the Federal Communications Commission, Consumer Assistance Branch, 1270 Fairfield Road, Gettysburg, PA 17325-7245, toll-free 1-888/225-5322.

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØIJ	KIØPK	++	KCØFBU
1	AA1UI	KE1KZ	++	KB1DSM
2	AB2GA	KG2QA	++	KC2ESG
3	AA3SE	KF3CO	++	KB3DLO
4	AF4NO	KU4YO	++	KG4CDR
5	AC5SG	KM5UL	++	KD5GLP
6	AD6HY	KQ6ZR	++	KF6VBR
7	AB7AN	KK7SG	++	KD7EHA
8	AB8DT	KI8HT	++	KC8LVJ
9	AA9WX	KG9KZ	++	KB9UFG
N. Mariana Is.	NHØK	AHØBC	KHØHW	WHØABK
Guam	++	AH2DK	KH2UC	WH2ANZ
Hawaii	NH7V	AH6PS	KH7JZ	WH6DFJ
Amer. Samoa	AH8R	AH8AH	KH8DN	WH8ABG
Alaska	ALØN	AL7RJ	KLØSI	WL7CVA
Virgin Is.	++	KP2CP	NP2KJ	WP2AIK
Puerto Rico	NP3Z	KP3BM	WP3BH	WP4NOM

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

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Thank you!

in distress, all radio stations, including those owned and operated by the United States, shall use the minimum amount of power necessary to carry out the communication desired."

Now the sophists amongst you (and there are many, so I must warn you that I don't suffer fools gladly and have a degree in Put-Down Science from the K.N. Sterba School of Applied Absolute Correctness) may venture that the "communication desired" may be very loud communication. Don't wanna hear it. The meaning here is clear, and common sense is a good measure of the intent. Of course, the Congress was not mandating QRP operation. Nor does the statute require any particular power limitation. If you are trying to run a phone patch to Antarctica from the upper latitudes during a solar storm, you may barely get by with 1500 watts cooking the coax to your 10-element beam. On the other hand, the 75-meter ragchewers who are not content unless they are 50 dB over S9 are violating the law. If they are also using speech processing or other bandwidth enhancing technology, the splatter up and down three or four kilocycles is not only an unnecessary exercise in electronic testosterone, but also is a federal crime. In my personal opinion, any more power than is required to maintain a 5-7 to 5-9 contact is unnecessary. In other words, if you are in a two-way QSO and both parties are reporting 20-30 dB over S9, the law REQUIRES you to turn down the power (whether anyone complains or not). Of course, this also has the additional benefit of reducing the wear and tear on your final. Remember, the next time you hear yourself bragging that your signal was booming at 40 over S9 when you had a two hour ragchew with Alaska, it is legally no different than bragging that you just held up a convenience store for a pack of Twinkies.

Language, false signals and call signs

There are a few other no-no's worth mentioning, and Title 47 U.S. Code, Section 303(D) is the source. That section makes it unlawful to transmit "superfluous radio communications or signals or communications containing profane or obscene words, language, or meaning," or knowingly transmit "false or deceptive signals or communications, or a call signal or letter which has not been assigned by proper authority to the station" being operated. I will leave the precise meaning of "superfluous communications" to those with a greater grasp of the Congressional intent behind this phrase. There is probably a good argument (for argument's sake) that much of what passes for conversation on the amateur bands is "superfluous," but I will not throw the first stone on that one, having exchanged weather reports and equipment lists on more than one occasion without a single word about world affairs, sunspot physics, or the philosophy of Kierkegaard. During one recent QSO when the topic of "superfluous communications" came up, a fellow Ham opined that any mention of Monica Lewinsky should qualify.

The FCC is definitely not going to become the "Ham band thought police" based on the prohibition against "superfluous radio communications." Nor are they going to descend with force on the occasional obscenity or casual cursing, based on Supreme Court decisions narrowing the definition of obscenity. But beyond just the annoying lack of civility and basic skill with the English language, those foul-mouthed operators who seem to populate portions of 75 Meters for hours on end (with things they would not say in front of their mothers, children, or ministers) can be pursued more easily under the interference and power prohibitions in the statute. It should be noted that the Congress was sensitive to the First Amendment issues that this type of restriction can engender. Under 47 U.S. Code, Section 326, the Congress says that "Nothing in this chapter shall be understood or construed to give the Commission the power of censorship over the radio communications or signals transmitted by any radio station, and no regulation or condition shall be promulgated or fixed by the Commission which shall interfere with the right of free speech by means of radio communication."

But what about meting out justice to violators? What kind of teeth did Congress put behind the prohibitions in Title 47? Very sharp teeth indeed, and an array that would make a mako shark proud. The simplest penalty, and one that most amateurs seem to be aware of, is the authority of the FCC under Title 47 U.S. Code, Section 303(m) to "suspend the license of any operator upon proof sufficient to satisfy the Commission that the licensee (A) has violated, or caused, aided, or abetted the violation of, any provision of any Act, treaty, or convention binding on the United States, which the Commission is authorized to administer, or any regulation made by the Commission under any such Act, treaty, or convention" or "(D) has transmitted superfluous radio communications or signals or communications containing profane or obscene words, language, or meaning, or has knowingly transmitted false or deceptive signals or communications, or a call signal or letter which has not been assigned by proper authority to the station he is operating"; or "(E) has willfully or maliciously interfered with any other radio communications or signals." But license suspension (along with refusal to renew a license) is just the tip of the iceberg.

The real enforcement penalties are based on the fact that violations of the statute are criminal misdemeanors. The general penalty under 47 U.S. Code, Section 501 says that "Any person who willfully and knowingly does or causes or suffers to be done any act, matter, or thing, in this chapter prohibited or declared to be unlawful, or who willfully and knowingly omits or fails to do any act, matter, or thing in this chapter required to be done, or willfully and knowingly causes or suffers such omission or failure, shall, upon conviction thereof, be punished for such offense, for which no penalty (other than a forfeiture) is provided in this chapter, by a fine of not more than $10,000 or by imprisonment for a term not exceeding one year, or both; except that any person, having been once convicted of an offense punishable under this section, who is subsequently convicted of violating any provision of this chapter punishable under this section, shall be punished by a fine of not more than $10,000 or by imprisonment for a term not exceeding two years, or both." That is certainly a legal mouthful, but spits out pretty simply: violations are federal crimes. In fact, until the law was amended in 1954, violations were classified as felonies.

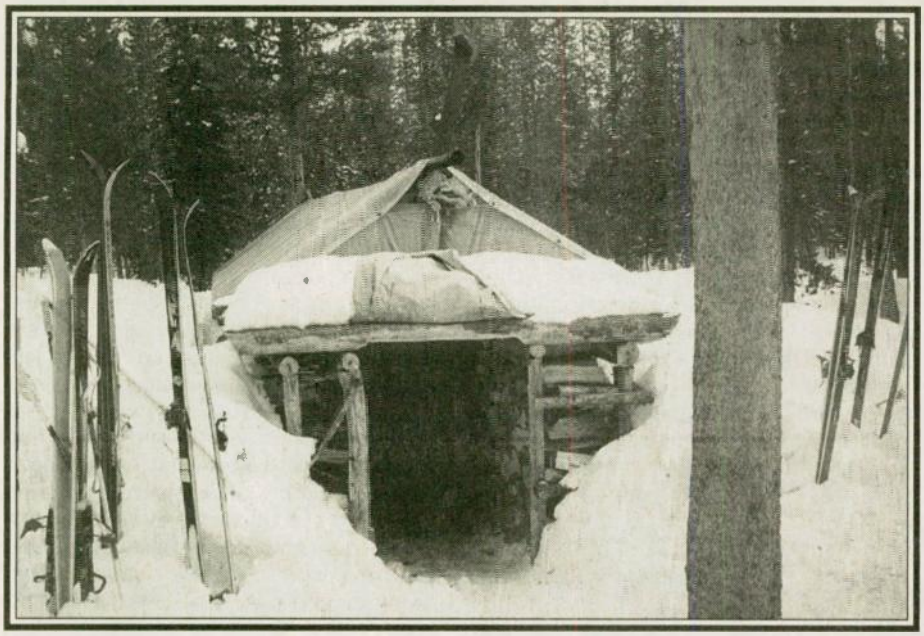
In addition to the heavy duty criminal penalties for violations of the statute, the FCC can impose fines for violations of FCC regulations under 47 U.S. Code, Section 502, which reads, "Any person who willfully and knowingly violates any rule, regulation, restriction, or condition made or imposed by the Commission under authority of this chapter, or any rule, regulation, restriction, or condition made or imposed by any international radio or wire communications treaty or convention, or regulations annexed thereto, to which the United States is or may hereafter become a party, shall, in addition to any other penalties provided by law, be punished, upon conviction thereof, by a fine of not more than $500 for each and every day during which such offense occurs." Those $500 a day fines can really build up.

The FCC doesn't have to just sit out in the street with an RF power meter to catch potential violators. It can come right inside. Under Title 47 U.S. Code, Section 303(n), Congress gave the FCC "authority to inspect all radio installations associated with stations required to be licensed by any Act, or which are subject to the provisions of any Act, treaty, or convention binding on the United States (such as an unlicensed station), to ascertain whether in construction, installation, and operation they conform to the requirements of the rules and regulations of the Commission, the provisions of any Act, the terms of any treaty or convention binding on the United States, and the conditions of the license or other instrument of authorization under which they are constructed, installed, or operated." In other words, by operating a radio station (and using your Amateur Radio privileges) you subject yourself to FCC on-site inspections. They usually arrive with cooperating members of the local constabulary, so don't expect to just tell them to get lost.

In addition to fines, jail time, and loss of license privileges, the FCC has one other hammer for operating without a license or in violation of the terms of a license. Under 47 U.S. Code, Section 510, your equipment may be "seized and forfeited to the United States." Because a four Kw HF transmitter is not a lawful piece of equipment for an Amateur Radio operator to use, they can come and get it.

There you have it: the language of the law that governs proper and lawful Ham operating. While it is important to remember that the renewed efforts of the FCC to enforce lawful Amateur Radio operations are not going to emulate the Gestapo, the law backs up their efforts to obtain voluntary compliance with some pretty stiff penalties for scofflaws. Personally, I don't think that it will take many fines, equipment seizures, or license suspensions to make a real impact. Most of the guys who flagrantly ignore the law and good amateur practice (to say nothing of good sense, ordinary decency, and common courtesy) are the same folks who slow down when they see a cop sitting in his cruiser by the side of the highway. Just knowing the FCC really is paying attention and has some time-tested law behind its enforcement efforts will have a salutary effect.

It will be interesting to see how long it takes (and how many well-publicized crack-downs on the worst offenders) before the Ham bands are safe for children, kindly little old ladies, and those of us who enjoy communicating throughout the world with less power than it takes to light up a baseball stadium.



Our luxurious hideaway in the Idaho woods.

Backcountry adventure

Joe Yelda, KF7AE

The sky was overcast and promised snow before nightfall as we left Ketchum, Idaho. Our destination was Custer County, Idaho, 70 miles north of the Ketchun-Sun Valley area. Custer County is a remote area in central Idaho where rescue times are measured in hours, not minutes. There are no 2-meter repeaters here and cellular telephone service is nonexistent. While this is a popular destination in summer, it was now January in an El Nino year. We were headed for a yurt in the Sawtooth wilderness area above Redfish Lake at an elevation of 8,700 feet. A yurt is really just a large wall tent. It has all the essentials to make winter camping enjoyable; a two burner cook stove, cooking gear, beds, wood stoves, firewood and a sauna. This yurt was operated by Sun Valley Trecking, Sun Valley, Idaho, under permit from the U.S. Forest Service.

Later that morning as we parked our trucks at the Redfish Lake turnout there was already five feet of snow on the ground. There were nine of us going in to the yurt. Eight of us were using mountaineering skis and my 20 year old son Paul was on snowshoes. We were all good friends having backpacked or gone in on similar yurt trips before. Normally on such a trip a guide would be necessary but as some of us had been into this yurt before, a guide was not required and most of our group were experienced backcountry skiers. The majority of our group had packs; I was towing a sled as I was carrying some extra essentials: extra food, some radio gear, several bottles of cabernet, etc. The first two miles into the lodge at Redfish were very easy as it is mostly flat. Then we had to put the climbing skins on our skis for the four miles we had to climb to reach 1500 feet. This trip is recommended for those only in excellent physical shape. The view above Redfish lake was fantastic as we were climbing the ridge. The Sawtooth mountain range has to be one of the most scenic in this county. It took us most of the day to reach the yurt and after dinner we all turned in early as we were all tired!

When we awoke the next morning there were two feet of fresh dry light powder. We had to clear the snow off the roof of the yurt and then most of our group went telemark skiing on the ridge above. It continued to snow all morning and we had to clear the snow off the roof of the yurt again. At lunch some of our group were talking about our wives being worried due to the storm. Russ, one of our group, told the story of his getting stranded in the Tetons in Wyoming on a snow camping trip when they received four feet of snow in one night. His father had called in search and rescue and a helicopter when they had not come out on time . I thought about that and decided I'd try to call the wives.

I brought out my MFJ-9420 ssb 20-meter transceiver, 2 amp power pocket gell cell (4 pounds total weight) and went outside and tied a dipole between two trees next to the yurt. Ten minutes later I came across a net calling for check ins. "KF7AE qrp from the Idaho wilderness area." Joe, a Ham from Texas (I can't remember his call) heard me and turned his beam toward me. It was armchair copy for me and Joe said I was pegging his meter. Not bad for 5 watts and a dipole five feet off the ground. The signal was so good I asked Joe if he could run a phone patch for me but he said he didn't have one. Joe asked me several times where I was (I'm not sure he believed me). He said he would be happy to run a two-way for me so I had him call Jan, one of the wives I knew would be home. From Jan

we learned that the wives were indeed very much worried. The magnitude of this fast moving Pacific storm had caught weather forecasters by surprise and Galena Summit, the pass we had come over the day before, was now closed due to an avalanche and most of the roads in central and eastern Idaho, including the freeways, were now closed. I asked Jan if she would call all the wives to say that we were all fine and having a great time.

All the comforts of a five-star luxury hotel...not!

I spent the next two hours talking to stations all over the U.S., Canada and Mexico. I think most of them thought I was in a cozy ski lodge back in Sun Valley. The band then died and it was about time for dinner. The dinner was excellent that evening as Christian (one of our group) was a chef from a gourmet restaurant in Ketchum. Afterwards we all

Joe Yelda, KF7AE, on dish duty. (Wife says this is very rare!)

enjoyed the wood-fired sauna in the log building next to the yurt. We all slept well that night!

We left at ten the next morning as we had to break trail all the way back to the highway. My son Paul led the way (snowshoes and youth were a great combination). We got back to our trucks about midafternoon and on the way back to Ketchum (Galena Summit was now open) we were already talking about our next yurt trip. Later that winter we were going in to the Fishhook yurt. This yurt was only four miles in and the terrain was mostly flat. It has a wood fired hot tub, which you fill by hand from the creek. Think of it, after a day of cross-country skiing in the wilderness area you are soaking in the hot tub. I'll be sure to pack in my radio!

A trip to New Guinea

Jack Carter, KC6WYX

When a friend invited me to join his group on a trip to New Guinea, I quickly saw the possibilities of operating DX as a P29 station. While hunting DX contacts for the past 3 years, I had always envied the lucky operators on the other end.

The possibility of calling CQ from a Pacific island with an exotic call sign was more than I could resist. Not to mention the possibility of seeing areas of the South Pacific, which had not been viewed by outsiders until early in this century, and the scenes of heavy fighting in WWII. With information from the ARRL, I wrote to Papua, New Guinea and applied for a visitor's license (P29VJC) and started reading everything about New Guinea that I could get my hands on. I also wrote to all the P29 Hams which I had previously contacted, asking for any useful information.

The trip, I later learned, was to be a cruise on the M/S Pearl. The ship was to depart Cairns (pronounced Cans), Australia, on 27 July with stops at Madang and Wewak in PNG, Jaya Pura in Indonesia, Lae and Samarai Island in PNG, then returning to Cairns. It sounded great to me.

All of these places are rich with history and I was ready. Jaya Pura previously know as Hollandia, Dutch New Guinea, was the site of General MacArthur's headquarters after the enemy was neutralized in New Guinea. It was also the jumping off place for the invasion of the Philippines.

I received a letter from Ron Piovesan, P29DY, with lots of information including the name and location of a missionary group in Madang that operates an Amateur Radio station. This was critical in making my DXpedition a success.

With a borrowed Kenwood TS50, two 17.2 ah gel cells, and a 20M dipole, the XYL and I flew out of Los Angeles for Cairns via Sydney. About 24 hours later we were sailing for Madang, PNG, from Cairns.

The weather on the Coral Sea was dominated by an unusual high pressure system southwest of Australia, which brought Antarctic wind and rough riding for the ship. In these same waters in May of 1942, Allied naval forces turned back an enemy invasion task force headed for Port Moresby. Thus the Battle of the Coral Sea stopped a thrust which surely would have been followed by an invasion of Australia.

Things calmed down when we reached the China Strait, the historical route around the east end of New Guinea. As dawn broke on the 28th we were cruising the north coast of PNG on the Solomon Sea. The lush peaceful green coast of New Guinea gave no hint of the desperate, bloody fighting which swept this island during WWII.

Going north toward the eastern entrance of the Vitiaz Strait, between New Guinea and New Britain, we passed Cape Cretin on the afternoon of the 29th. This is near Finschhafen, which was the first European settlement on the north coast. In 1885 an unsuccessful attempt was made to colonize the area by Germans. The area later became a large base for the Allies after they ejected the enemy from the north coast of New Guinea. As dawn broke on the 30th, we were approaching Madana.

As soon as passengers could leave the ship, I headed into Madang. It is a small resort town and is said to be the prettiest town in PNG. I can believe it. The entrance to the harbor is a vision of South Pacific loveliness. As I walked into town, I spotted the local police station and inquired as to the location of the Pioneer Bible Translators (a missionary group with active Hams). They offered to take me there, so the four constables and I piled into their utility vehicle and drove over to a building sprouting a trapped Yagi.

There I met David Parish (P29WY) and XYL Alice. They graciously offered me the use of their facility and antenna, apologizing because they didn't have a transceiver. The constables and I made a quick trip to the ship to get the TS50 and batteries and returned to PBT. In less than 1 1/2 hours after docking, I was receiving a familiar voice, John (KFØUI), 5-7 on the 14.247 DX net. When John gave me a 5-6, my fears of having traveled 8000 miles from home to get skunked by poor propagation, were gone.

Within an hour, I worked the U.S. west coast, midwest, and east coast, British Virgin Islands, Grenada, and Contradora Island, in Panama. When the net closed down propagation was still strong, so I kept the frequency. It also didn't hurt to be sitting on IOTA OC-034 during the IOTA contest. When things slowed up a bit, I QSYed to 14.204 and business picked up again.

The ship was sailing at 6 p.m. and passengers were to be on board by 5 p.m. At 5:14 p.m. (0714Z), I worked my last contact from Madang and went QRT with 146 contacts, 26 states and 12 countries in my P29VJC log. Sandra (P29SZZ) from PBT offered a ride back to the ship, so I didn't have to run the mile with 40 pounds of gear. It had been a great day for a guy who was a Novice three years ago.

After a day at sea we entered Wewak,

to be greeted by a large group of native dancers from a local tribe performing on the pier. We spent the first day touring Wewak and absorbing the local color.

On the second day in Wewak, we had a tour of the Sepik River area in log canoes powered by outboards. The Sepik was the main route into the interior for years and remains populated with tribal villages. Curiously the pidgin (main native language) word for outboard motor is "Johnson" and is a serious marketing problem for the Kawasaki salesman.

The ship cruised overnight to Jaya Pura, and was again greeted by a native dancing group. Here I had the opportunity to fly into the interior highlands to visit the very primitive Dani people of the Baliem valley. These stone age warrior farmers continue to pursue life as they have for thousands of years. Although they are content to ignore clothing, automobiles and airplanes, they have added tobacco to their life style.

That evening we sailed east into the Bismarck Sea (scene of another WWII battle), bound for Lae. Civilization was thrust upon Lae when gold was discovered near there in 1921. Amelia Earhart took off from Lae on her last and ill-fated flight, in July 1937. Lae, while in enemy hands, was heavily bombed by the Allies and recaptured on 16 September 1943. Since then Lae has developed into a thriving port city, with problems familiar to many modern urban areas.

By this time I began to suffer from DX withdrawal pains, so I made plans to operate from our next stop, Samarai Island (IOTA OC-153). In route the ship made a passage through Milne Bay. We passed by Ahloma, where in August 1942 the Australians gave the invading enemy their first land defeat of the war.

At Samarai, the ship had to anchor off the island, so we went in on the ship's motor launch. Samarai was once the capital of Milne Bay Province and the jewel of New Guinea. In half an hour you can walk around the island which now peacefully sleeps, dreams of its past and hopes for the future. A few minutes after arrival, I was introduced to Wallace Andrew, a local "Big Man." I explained that I wanted to operate my Ham station. He lead me to a community building and helped get my dipole up. I worked some Australian stations, but there were only a few weak signals coming from the U.S., and they were not answering. After a couple hours, I packed up the gear and caught the last launch back to the ship. In an hour, we sailed for Cairns.

The Antarctic winds were still whipping up the Coral Sea, only much worse. There were quite a few empty chairs in the dining room that day.

Back in Cairns, we had time for a day of sightseeing and another for a trip to the Great Barrier Reef. We flew out of Cairns at 10 a.m. on 10 August. Strangely, we flew around the world to the east, the sun went west around the world and we arrived in Los Angeles at 10 a.m. on 10 August. I am still under New Guinea's spell and my visitors license is good for another 10 months. Hmmmm.

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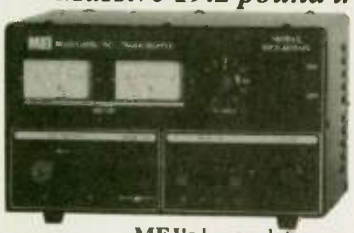

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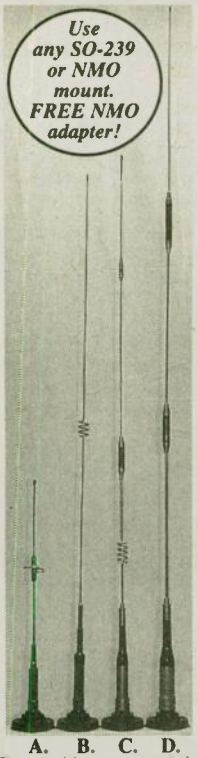

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D. ***RuffRider Hyper Gain*™.** 62½" brute gives a whopping 5 dB gain on ⅞ Wave 2 Meters, ⅝ Wave, 7.6 dB gain on 440 MHz. Our highest gain antenna. Handles 150 Watts.
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MFJ *RuffRider*™ super heavy duty Antenna Mounts

Trunk/Hatchback *Lip* Mount

MFJ-345 Lip Mount is shown mounted vertically to a mini-van's angled hatchback lip. Note extra-wide mount with reinforcing tab at right -- safely secures heavy antennas. Swivel mount is adjusted so antenna is near vertical away from mini-van to clear luggage rack.

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Mounts on lips at any angle. Two axis of rotation lets you position your antenna vertically, horizontally or at any desired angle. Serrated swivel joints locks securely in place with huge 3/8 inch set screw.

Has SO-239 base mount. Use adapter for NMO. Includes low loss coax with PL-259 connector, Allen wrenches and protection caps for SO-239 and locking screw, One year MFJ *No Matter What*™ limited warranty.

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MFJ-340 Pipe Clamp Mount is shown clamped solidly to vertical mirror support rod on a pickup truck. Antenna is slightly swiveled to the left and positioned about 30 degrees from vertical to clear cab of the pickup truck.

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WP2Z CQWW 1998 from Hurricane Alley

Clarence J. Kerous, W4CJK/KP2

For the *CQ* WW SSB contest 1998, members of the Florida DXpedition Group, (FDXPG) began looking for a location to operate from. We began looking in January and in a real stroke of good luck, secured Windwood in the U.S. Virgin Islands after another group cancelled. Windwood is located 900 feet above sea level on the island of St. Croix. When we rented it for 8 days for the *CQ* WW SSB test, we also got the use of the callsign WP2Z, a real advantage during the contest.

The dream team for the *CQ* WW ended up as Bill Gallier, W4WX, expedition leader and founder of the FDXPG, Clarence Kerous, W4CJK, Ernie Orman, Jr., W5OXA, William Beyer, Jr., N2WB, Jim Mornar, AA9TK, and Chris Allingham, VE3FU. Both Bill and myself were veterans of operating at Windwood, as we competed in the CQWW in 1996 as WP2AHW. So we knew the lay of the land and what to expect.

As the months went by, we were all kept busy preparing for the day we would finally leave for KP2 land. We passed a mountain of email messages back and forth, and Ma Bells' pockets were fattened with countless phone calls among the group. Finally, 19 October 1998 arrived, and we departed. Bill W4WX, and myself flew out of Jacksonville International Airport at 7:45 a.m. to Miami. When we arrived at JIA, we were ready to unpack and turn on all our electronic gear, but surprisingly after being x-rayed, we were waved through. By the time we got to Miami, it was overcast and raining. At MIA we hooked up with William, N2WB, and the three of us would fly to St. Croix together, but not without a few apprenhensive moments. Our flight was put on hold as the plane had mechanical problems. Later we were told the plane was taken out of service with engine trouble, and another plane was found and being readied, and all the baggage was being transferred to it. Unfortunately it was located in a different concourse on the other side of the airport, so we had to walk through the entire airport carrying our two carry-on bags of heavy gear, and had to have it x-rayed again. Again, we were waved through without having to open any of the bags, or turn anything or.

Finally an hour and 45 minutes late, we took off for St. Croix. As we approached St. Croix, it again became cloudy and was raining when we landed.

At the airport we were met by Chris, VE3FU, who was from Ottawa, Canada, and was already there. After our volumus baggage was unloaded, we piled all of it and us in a big van and headed for Windwood, located on one of the highest points on the island, and visible from almost any place on St. Croix. As we drove through and out of Christiansted, we could see evidence of damage here and there from Hurricane

Clockwise from the left, William Beyer, Jr., N2WB, Ernie Orman, Jr., W5OXA, Jim Mornar, AA9TK, Chris Allingham, VE3FU, Clarence Kerous, W4CJK, and Bill Gallier, W4WX, posing for the official formal portrait.

Georges, which had raked the island a month earlier. After Georges hit St. Croix, we all spent two and a half weeks waiting for word that the electricity was back on. Luckily for us, the power was restored a week before we landed, as was the telephone service.

As we climbed higher and higher, driving on the left side of the winding roads to get to Windwood, we all became very anxious. For the last mile of the journey up the mountain, the big van was in low gear, and the engine was screaming, pulling us and the driver and all of our gear to the summit. When we finally got to Windwood, it was like a homecoming to Bill and me, as it brought back many good past memories from 1996 and the *CQ* WW as WP2AHW.

We quickly unpacked and stowed our personal gear, and got down to the real and only reason we were here, Ham radio and the *CQ* WW! Windwood has a very complete station consisting of a Yaesu FT-1000MP, an Icom IC-751, an Ameritron AL-82 2-kilowatt amplifier, as well as a bencher paddle, Heil pro-set, MFJ memory keyer, MFJ noise redution unit, MFJ 3-kilowatt antenna tuner, and a desktop and laptop computer.

The Windwood antenna farm has a Force 12 C4 with a 40 Meter add on kit on a 30 foot tower, a Cushcraft A3 tribander on a push up pole, a Cushcraft 402CD two element 40-meter beam on a 20 foot tower, a Gladiator vertical for 80 Meters, an 80-meter sloper, and a 80 and 160-meter trapped dipole, with the dipoles attached to the 30 foot tower and sloping down the hill. Keep in mind that although these antennas are not high above the ground, the ground is over 900 feet above sea level. They all perfomed awesomely and we kept getting reports on how loud we were. There was only one small problem with all of these impressive antennas. None of them were up! Because of Hurricane Georges a month earlier, all were taken down and stowed, and the tower for the C-4 was lying on the ground next to the house. So we had our work cut out for us.

Monday afternoon, shortly after our arrival, we assembled the Force 12 C-4 and mounted it to the mast on the 30 foot tower. The Tailtwister T2X rotor was still mounted and wrapped in plastic to protect it from the elements. We used a come-along and ropes which were stored in the antenna locker in the house, and got the tower and beam up in short order. Unfortunately, whoever took it down didn't keep the bolts together. We found some dropped on the ground around the tower, and scrounged up some more from the utility room and antenna locker.

Once the tower and beam was up and secure, we climbed the tower and put up the two wire antennas. Again, whoever took them down must have been in a real hurry with the hurricane approaching as the wires were just cut and thrown in the bushes on the side of the hill. We found them after some searching in the brush on the side of the hill, and let me tell you that was a real experience as the hill slopes down at 45 degrees and gets steeper as you get down. The footing is very poor with loose and crumbling volcanic rock. By dark of our first day at Windwood, we had about one half of the antennas up and operational. We tried them out briefly. It was like turning on a switch, with an instant pileup when we called "CQ". Wow!

At 8:30 p.m., another member of our dream team flew in from Biloxi, Mississippi. We were all glad to finally get to meet Ernie, W5OXA, in person for the first time. Ernie is a real likable guy who fit right in from the start. This only left Jim, AA9TK, missing. He was arriving the next day from Chicago, or so we thought.

The sun arrives very early in St. Croix, with first light around 5:20 a.m. St. Croix is as far east as you can go in the U.S. and its possessions. We drove down the mountain to Kingshill for a leisurely breakfast at the local McDonalds. Everything tasted the same as it does back in the states. We then stocked up on supplies at the local Pueblo grocery chain store. Then it was back to work.

The Cushcraft A3 was assembled and put up on its push-up pole out in the front yard. The hardest part of the job was pounding stakes in the ground for the guy ropes. We kept hitting lava rock just below the surface, but finally got them in and secured the A3. We used a rope tied to the boom to turn it. We then assembled two 10 foot sections of Rohn 25G tower and mounted it to a concrete pad on the opposite side of the driveway from the A3 and hinged it down, then assembled the 402-CD 2 element 40-meter beam. It was a breeze as everything on the beam, as well as the A3 is marked with color-coded tape. All we had to do is match up the right color tape and assemble them both. We then attached a rope to a Turpentine tree and used the come-along and hauled the 40-meter tower and beam upright and secured it.

Finally all the antennas were up and running. We had a station with the Yaesu FT-1000MP using the C-4 Beam and William put out a CQ. After two fast contacts, the digital display went out. We could not tell what frequency were were on! Amazingly, the rig still worked, but with no display we could

not use it for the *CQ* WW. Ernie, W5OXA had brought along his Kenwood TS-50 with the matching tuner and power supply, and we quickly pressed it into service, and retired the FT-1000 with the bad display. Bill, W4WX brought his Icom IC-706, and using the Astron 20 amp power supply from the Icom IC-751, we now had two rigs on the air.

We were anxious for Jim, AA9TK, the last member of our group, to arrive. We called the airport and were told his flight was delayed due to mechanical problems. Jim was to arrive on St. Croix on Tuesday at 1:30 p.m. He finally arrived at 8:30 p.m. after numerous delays and diversions to different airports all over the eastern U.S. As the old saying goes, better late than never. Jim brought another Yaesu FT-1000MP and an Icom IC-738 with a Drake MN-2000 high power antenna tuner. We now had all the pieces we needed to assemble our running and multiplier stations.

"As time for the contest drew near, we were all a little nervous..."

I brought along an Icom IC-28H 2-meter rig and an MFJ 1274 TNC. Bill packed along a small three element MFJ 2-meter beam. We assembled the beam, mounted it on the side of the tower and aimed it toward Puerto Rico. With the gracious help of a local amateur, Jimmie, KP2BH, who stopped by to help and showed us how, we connected to the node PIRATA on 145.30 in Puerto Rico. From there we connected to KP4ES, and then to either DXC of the WU3V mega cluster in Lafayette, Louisiana, or to DX2, the AC4ET DX cluster in Jacksonville, Florida. This was going to be very useful in finding needed multipliers during the contest.

The days before the contest were spent calling "CQ" and working down the resulting pileups, or sightseeing, or just plain relaxing. But as the old bromide says, ignorance is bliss. On Tuesday evening, as we were grinding down the pileups, the weather took a real turn for the worse, very fast. The sky became very dark and looked really ominous. The rains started and became a torrental downpour like none of us had ever seen. The winds picked up and howled around Windwood like a banshee. It kept this up Tuesday evening, all day on Wednesday and into Thursday afternoon. At times the visibility was absolutely zero. We were on the top of the island and couldn't see anything at all.

We tried to get the weather on TV, but the cable TV was still out from Hurricane Georges a month earlier. Luckily I brought an AM/FM shortwave radio along. I tuned into a local station and we learned of Hurricane Mitch, ravaging the Carribean to the south of us. It did not hit St. Croix, but we got a good battering with high winds and rain for over 2 days. Two major Hurricanes in a month! St. Croix was turning into a real Hurricane Alley. At times the rain static was 20 over S-9 making the bands totally useless. Luckily Hurricane Mitch passed with no damage to any of the antennas, and by Friday morning the sun was shining again.

As time for the contest drew near, we were all a little nervous. Ernie and Jim had never worked a major bash like this before, but it turned out they both did just great. WP2Z for the *CQ* WW SSB 1998 would be a multi-single effort. The running station consisted of a Yaesu FT-1000MP, Ameritron AL-82 amplifier and an MFJ 3-kilowatt tuner. A Packard Bell 486 laptop running CT version 9.37 was used for logging. It was connected to the computer on the multiplier station with a null modem cable. The multiplier station was an Icom IC-738, with a Ten-Tec Centaur amplifier, through a Drake MN-2000 tuner. The laptop was an IBM Pentium Think Pad, also running CT version 9.37. We drew up an operating schedule for the entire contest, four hours on, eight hours off.

To begin the contest, we had our big guns, William, N2WB, on the running station, and Chris VE3FU manning the multiplier station. At last the clock ticked down and the bedlam erupted. "QRZ contest, WP2Z, Whiskey Papa Two Zulu! We started out on 20 Meters. Total chaos at first, but quickly settled into a routine of grinding out the Q's endlessly.

As the hours of the first night wore on, we went to 40 Meters, where we worked split, and then down to 80 Meters, and then to the top band, 160 Meters. I had the 0800-1200Z shift on the running station and 80 Meters was

Clarence Kerous, W4CJK, demonstrating the proper way to pause between contacts.

unbelievable. Thousand of stations all slugging it out for a QSO with WP2Z. I passed out "QSL your 59 08" as fast as I could typed them into the computer, I then dropped to 160 Meters. The noise level was S-9 to 10 over, but we had an ace up our sleeve. A snake receiving antenna laying on the ground and sloping down the hill. It had been erected by a group of EI amateurs. It made all the difference in the world on receiving. Stations that were totally in the noise were S-5 on the snake.

I stayed on 160 Meters until a little after daylight working some gray line QSOs. I then went to 15 Meters with the antenna pointed to Europe. My God! The entire world was on 15. Europeans were everywhere, and once again I worked them as fast as I could log them. My four hour shift was over in what seemed like a few minutes. After I was relieved by another operator, I had a quick breakfast and crashed for about 6 hours of sleep. Then it was my turn for four hours on the multiplier station. It went by in an instant as I combed the bands looking for needed multipliers.

After another eight hours off, I was back on the running station again early Sunday morning. I had some really great QSO rates going at times, and if we needed a multiplier on another band, I would ask them to QSY and passed it to the multiplier station using the ALT-G key to pass messages with CT.

Using the Yaesu FT-1000MP, with two receivers, was like a dream come true. I was transmitting on 40 Meters at 7.096 and was listening on my frequency and 7.220 at the same time. I had two huge pileups going at the same time. Europe on 7.096, and the U.S. on 7.220. This is the experience of a lifetime for any DXer. From KP2 land we could operate 40 Meters SSB down to 7.075, so it made this possible. Once again, the four hour shift went by in the blink of an eye. It was countless "your 5-9 08" and "QRZed from Whiskey Papa Two Zulu".

Shortly after my shift was over, Mister Murphy paid us a visit. The entire island lost power. Windwood has a 3-kilowatt generator for use when the power goes out, but unfortunately, it suffered a mortal wound when used by the caretakers in the aftermath of Huricanne Georges. It was seized up and was only good for use as a boat anchor. All we could do was sit it out and wait for the power to come back on. It seemed like an eternity, but mercifully, it came back on after an hour and a half. Then it was back to "CQ contest from Whiskey Papa Two Zulu."

My last shift of the contest was 12 noon to 4:00 p.m. local time, on the multiplier station. I kept digging out new multipliers, and near the end of my shift 10 Meters was wide open to the Pacific. I picked up a bunch of new multipliers, FK8, T32, FO, VR2, KH2, KHØ, V63, C21, 3D2, C21 and many others. As fast as it began, my shift was over. We broke down the last four hour shift into four one hour shifts to give us one last chance to work the running station. About all I can remember was calling "QRZ." It was a slugfest on 20 Meters almost beyond belief. The hour went by in a heartbeat! Bill, W4WX, had the honor of the last hour on the running station, and he really had a run going, when all too soon it was over, and the bands fell quiet instantly.

We then backed up the logs, saved them to disk and put the disks safely away. Then we went out for our traditional Victory Dinner. We had a great meal at a place on the east end of the island called "Cheeseburgers in Paradise." Open atmosphere with a live Reggae band playing. We downed several cold 807's and had the house special, a 1/2 pound cheeseburger with all the trimmings. What a glorious way to end the *CQ* WW, clear skies, moonlight, cool breezes off the Caribbean.

Now I know why the U.S. Virgin Islands are called "American Paradise." It just can't get any better than this. We then returned to Windwood, and most of us crashed, but Chris got on 40-meter CW. He is truly a QSO machine!

On Monday evening, after the contest was over, William, N2WB got on 15 Meters SSB and experienced a fantastic opening to Japan. He logged literally hundreds of stations in Japan. There were so many, he had to work them split in order to work the pileup down. I was on 20 Meters, and around 2300 the band also opened to Japan. Suddenly there were hundreds of JA's calling me. We then had two JA pileups going at the same time. What an experience that was! William and I both must say that our JA friends are the most courteous operators in the world. When we would go back to one particular station, the rest would all standby, no one else calling, no delayed or tail end calls. It is indeed a pleasure to work such polite and disciplined operators.

Before and after the contest, we all operated leisurely. We all made around 2,000 QSOs each without even trying. Bill, W4WX, made about 320 RTTY QSOs with a Kam Plus he brought along. We also brought along a small 6 Meter vertical which he set up, and about 50 QSOs were made on 6 Meters. When we got home, we all had a pile of QSL cards waiting to greet us. Ernie and Chris flew out on Monday, and the rest of us left to go back home on Tuesday. In my log entry for Tuesday morning before we left, I have a bunch of European QSOs, a lot from the U.S. and several more JA's. My last QSO after calling "CQ" for the last time from St. Croix was VR2KF. This is the stuff dreams are made of!

Our final score and breakdown:

Band	QSOs	QSO/PTS	PTS/QSO	ZONES	COUNTRIES
160	91	184	2.02	4	18
80	409	852	2.08	17	50
40	545	1201	2.20	19	74
20	1619	3617	2.23	30	106
15	1663	3667	2.21	31	114
10	1728	4116	2.38	31	120
Total:	6055	13637	2.25	31	482

Final Score: 8,373,118 points

With the *CQ* WW SSB 1998 behind us, it's time to look ahead to the 1999 bash. We have our sights set on the emerald isle of St. Lucia for a m/s effort as a J6(?). Hope to see all of you in the pileups from there.

For further information see these sites on the web: http://members.xoom.com/FDXPG/ or www.geocities.com/CapeCanaveral/Hall/1204/photo.html. For info. about Windwood go to: www.qth.com/windwood.

Submarines on the air

Carl Raish KGØHS

The Submarine Veterans Amateur Radio Association is planning another radio room activation day to help commemorate the anniversary of the submarine service. We will have as many boats on the air as we can the weekend of 24-25 April. We are looking for as many amateurs as we can to man the radio rooms in all the museum boats with Ham gear. If you have a memorial boat in your area, contact the museum manager and get permission to setup a station in or near the boat.

We had ten boats on the air last year and are hoping for more this year. We have at least 15 stations committed to this years event at the time of writing this article. It would be interesting if we could get some active duty boats to participate. Some of the museum boats have the radio rooms restored and operable with the original equipment. The February issue of ***Worldradio*** magazine had a nice article about the *Pampanito* radio room. Several of the Memorial boats have been issued vanity call signs that were their original Navy radio call signs. We will be operating on or around 3.943, 7.243, 14.243, 21.313, 28.343 and 50.130 MHz. There will be the regular SUBVETS net on at 1700Z on Saturday morning, the stations will spread out from there. Most of the stations will be on the air from 9 a.m. to 5 p.m. local time, except for the ones that start Friday night and end on Sunday night. This will be the third annual event with each year getting more participants. After you make contact with a Boat, send them a confirming card (QSL card) then they will send you a card. Send copies of at least four cards from the boats to the *Tubes Forward* Editor for a participation certificate. There is a fairly active group of Amateur Radio Submarine Veterans that meet on the air every day except Sunday. The most popular meet is on Saturday morning on 14.243 MHz at 1700Z (1600Z winter time). This net was started 25 years ago by the WWII subvets as a means of keeping in touch, and has remained active ever since. A new net has been started on Saturday night at 0100Z (0000Z winter) on 7.243 MHz. To become a member of the SVARA it is only necessary to checkin to the net and give your address to the editor of *Tubes Forward* news letter. There is a patch being made up for the group that can be worn on your vest or jacket. Visit the *Tubes Forward* home page for information and pictures of last years event at www.flash.net/~jflandrs/index.html web site. More information about activities may be obtained from the *Tubes Forward* Editor Jim Flanders at 1539 California trail, Plano Texas 75023-4300 or jaf@sprintmail.com. I can also provide information, Carl Raish at 1873 So. Tennyson St. Denver, Co. 80219 or kg0hs@juno.com.

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Rules enforcement: a new priority with the FCC

Bill Pasternak, WA6ITF

It has been almost fifteen years since there has been any concen trated enforcement action in Amateur Radio by the FCC. It all came to a screeching halt in the mid 1980s after a federal court overturned the license suspension of an Amateur Radio operator who had been charged with using the wrong kind of language on the airwaves. The court ruled that the FCC had overstepped its jurisdiction because it was up to the local community to set the standard as to what was and what was not acceptable on the airwaves. After that decision, the FCC appeared to pull back from enforcing the Amateur Service rules except in the most egregious cases.

As a result, the number of licensed operators flouting the law soon was on the upswing. Along with this grew the number of unlicensed people coming to our bands. On some HF frequencies, and on an even greater number of VHF repeaters, these 'bootleggers' still openly mingle with the wayward licensed Hams. The two groups, many times acting as one, have wrought havoc to an ever increasing number of frequencies. A prime example on the high frequency bands is the organized and ongoing attacks on long established and legitimate 20-meter service nets by self anointed 'frequency cops.' Even after the FCC stated there was no violation of any regulation by any of the nets, these 'guardians of the airwaves' have, unilaterally, determined that the nets violate their warped interpretation of the Amateur Service rules. The situation on 20 Meters has become such a blight on the Amateur Radio landscape that it has earned the unofficial title of the 'Net-Mess.'

On VHF the main effort over the years has centered on one former amateur who refused to leave the .435 Los Angeles 'Animal Farm' repeater after his license was revoked. He actually has been indicted and tried on three occasions and sent to jail twice. Almost as soon as this ex-ham has regained freedom he seems to be back on the air. Other than his case, little interest has been shown by the FCC regarding interference problems in relation to FM and repeaters.

Changes at the FCC

All of this began to change late in 1998. The ARRL took advantage of structural changes within the FCC to meet with several newly appointed key officials. At these meetings the ARRL convinced the FCC that for volunteers to police the Amateur Radio bands, they had to know that the rule of law was behind them. The job was far too much for the Official Observer Corps or the Amateur Auxiliary to handle on its own.

With William Kennard as the new Chairman and Richard E. Lee heading up the Compliance and Information Bureau, the ARRL had found ears willing to listen. In the fall of 1998, a meeting was held between the Wireless Telecommunications Bureau and the Compliance and Information Bureau to decide the future of Amateur Service enforcement activities. At that gathering it was determined that Amateur Service enforcement under the purview of the WTB was not working. CIB Chief Lee suggested that the activity be transferred to his jurisdiction. In short order it was, and Lee appointed an FCC attorney named W. Riley Hollingsworth, K4ZDH, as Legal Advisor for Enforcement to the Bureau. The FCC has him based in Gettysburg, Pennsylvania.

One of Mr. Hollingsworth's first headline-making actions came in early January when he issued a stern warning to an Indian River County, Florida amateur. The FCC claimed that the unidentified radio amateur had been making one-way transmissions information on, among other things, the credit reports, criminal records, and mortgage foreclosures of other Hams and their family members. Hollingsworth termed these as "disclosures and broadcasts made for the purpose of deliberately and maliciously interfering with licensed amateurs and for harassment or perceived retaliation."

Hollingsworth went on to say that the FCC views this as extremely serious and contrary to the purpose of Amateur Radio. Needless to say, this one letter got the attention of the majority of the nation's law-abiding Amateur Radio community and elevated Hollingsworth to the status of an instant 'Amateur Radio hero.'

But that was only the beginning. His next outing was one that went down in the Amateur Radio history books. It took place on 13 January when he turned up unexpectedly right in the middle of one of the biggest eye-sores in today's Amateur Radio, the ongoing controversy on 3.894 MHz on the 75-meter band.

What he did was to break into an argument with the intent of trying to settle things down. This accomplished, he stayed to discuss enforcement issues with the group of radio amateurs who had gathered on that frequency. "A couple of them were pretty shocked," Hollingsworth told the ARRL Letter. "This has never been tried before."

He calls the way he is tackling the problems in Amateur Radio as 'in-your-face' enforcement. Another example took place in the Carolinas a week later. That's when Hollingsworth and other FCC Enforcement personnel descended on the home station locations of John A. Abernethy, K4OKA, in Hickory, North Carolina, and Richard Whitten, WB2OTK, in Easly, South Carolina. FCC officials say that both Hams were the subjects of many complaints about their operations on the 75 and 20-meter Amateur bands. As we go to press, the FCC says that the results of the inspections are "under review."

February 1999 brought even more FCC enforcement. That's when the FCC suspended for six months the HF privi-

leges of Walter P. Miller Jr., W2YEE, of Edison, New Jersey, for basically holding QSOs with nobody. In a license-modification letter dated 16 February, Hollingsworth alleged that Miller's 75-meter operation on the evening of 04 February was contrary to the Amateur Service rules. Hollingsworth said Miller violated Section 97.1, basis and purpose of Amateur Radio; Section 7.101(a), good engineering and good amateur practice; and Section 97.119, identification requirements. The alleged operation took place on 3901 and 3950 kHz, the FCC said.

"Specifically, you were apparently broadcasting and talking to no particular station for several hours, during which time you prevented the use of the frequencies by others and maliciously interfered with other stations attempting to use the frequencies," Hollingsworth wrote.

He added that the Commission also had information indicating similar behavior occurred the next evening on 75 Meters. The suspension of Miller's license followed a warning letter mailed to him by the FCC on 08 January regarding similar operation. In it, the FCC informed Miller that he faced license revocation and fines.

Hollingsworth next turned his attention to the matter of questionable Amateur Radio testing by some VE teams. In a letter dated 16 February, he sent a letter to Sheila Bowden, N3QSS, of Millsboro, Pennsylvania, ordering her to re-take all exam elements because "questions had been raised" regarding how she upgraded to Extra. "You will be granted an Amateur Radio license consistent with any elements that you pass upon re-examination," Hollingsworth's letter said. The FCC told Bowden that she must retake the Amateur Extra Class examination series at an ARRL/VEC session before 19 March or lose her license. (The FCC has the authority under Part 97 to re-administer exam elements previously administered by VEs. The FCC may administer the exam itself or designate a VEC or VE to administer the re-testing session. This normally uses the services of a different VEC from the one who proctored the initial testing session.)

Enforcement beyond HF

And then Riley Hollingsworth turned his attention to the problems in the Amateur Radio world above 30 MHz. On 28 February, he issued an order for the owner of the K7IJ, Grizzly Peak repeaters to remove them from the air because their operation was out of control. By this, he meant that the license holder for the systems was allegedly permitting unlicensed persons to transmit signals through the repeaters and permitting the wrong kind of language to be retransmitted.

Repeater license holder Bruce Wachtell, K7IJ, a merchant mariner, was at sea when word reached him that the four Northern California repeaters operating under his call sign had been ordered off the air for 120 days. In a certified letter, Hollingsworth told Wachtell that his Amateur Radio license could also be in jeopardy for permitting the user abuses. The FCC then proceeded to modify Wachtell's amateur license to prohibit any form of repeater operation for 120 days starting at midnight 28 February.

The FCC has also set aside the license grants of four of the repeater users whom it alleges had operated on the system before their licenses were issued. It has also warned another user about his operations on the repeaters as being in violation of the Amateur Service rules and warned a non-ham user to stop illegally operating a radio transmitter. The FCC also began consideration of punitive action against two of the repeater's control operators whom the agency alleges have helped to foster illegal transmissions to be transmitted through the K7IJ repeater systems. One of these was Blake Jenkins, N6YSA.

On 03 March, the FCC acted in the Jenkins matter. He also had his VHF and UHF operating privileges suspended for 120 days. Hollingsworth's letter also demanded that the Berkeley, California, amateur provide detailed information concerning purported violations that took place over the K7IJ repeater while he was supposed to be in control of the system. The letter also alleges that since the operation of the K7IJ repeater was discontinued, Jenkins has used his own Amateur Radio station to "solicit the jamming of other licensed repeaters in your area."

And in an unusual move the FCC letter also raised questions regarding a site on the world-wide-web ostensibly operated by Jenkins. The FCC asserted that the site provided circuit descriptions of jamming devices and techniques. (That material no longer appears to be available at www.n6ysa.com).

Film at 11

CNN Reporter:
Well, Herr Gutenberg, just why did you invent the printing press?

Mr Gutenberg:
So, that someday there could be a great magazine called
Worldradio.

CNN Reporter:
You mean the monthly magazine that charges only $15 a year for all the latest news, interesting articles and profound colums?

Mr. Gutenberg:
Ja, even I'm amazed by that. Just a dollar and a quarter per issue. I don't know how they do it. Even with my press.

CNN Reporter:
Sounds like a good deal, Where do I find them, maybe I'll do another interview.

Mr. Gutenberg:
They are in America, sunny California. To be exact, in Sacramento at 2120 28th St. and the zip is 95818.

CNN Reporter:
Thank you, sir, for your goot information.

Mr. Gutenberg:
So, send your check or credit card information along with your name and address to Worldradio (see page 9) and they'll start your subscription immediately.

The suspension of Jenkins VHF and UHF operating privileges became effective on 05 March and remains in effect until 23 July. The FCC says these are very serious issues and they must be resolved in order to determine if Blake Jenkins, N6YSA, is qualified to retain his amateur license.

More HF Actions

And then, on 08 March it was back to High Frequency issues. The truckers operating in and around 14.300 to 14.313 MHz. And once again he did it in a variation of his 'in-your-face' enforcement that has become his hallmark. It began with close to two dozen letters of inquiry mailed out to amateur service license holders whose 20-meter SSB signals were said to be "unusually wide, overpowered, or both."

Hollingsworth's letter said information received by the FCC indicates that the stations involved "ignored requests from other licensees operating on adjacent frequencies" to do something about the wide signals. He said the operations in question were believed to be confined to the high end of the 20-meter band, above 14.300 MHz.

Again paraphrasing from the *ARRL Letter*, the notes to the 22 Amateur Service licensees requests fixed and mobile station information about the use of and specifications for any linear amplifiers employed on 20 Meters as well as the use of automatic level control (ALC) and mike gain settings. Those notified have 20 days to provide answers to Hollingsworth and the FCC.

It is hard to know which alleged Ham radio 'bad guy' or 'bad gal' will be targeted next. Hollingsworth does not telegraph his blows before acting. Rather, part of his success lies in that it's always a surprise when a letter from him shows up in an alleged trouble-makers mailbox.

But Hollingsworth is not trying to scare Amateur Radio into submission, Far from it. He has gone to great length to compliment the vast silent majority of the nation's radio amateurs. He notes that those causing the problems are a small, albeit sometimes vocal, minority.

Maybe the easiest way to sum up Riley Hollingsworth comes in his view on compliance with the Amateur Service rules and Regulations. He says the one key to compliance is just getting people to listen to what he has to say. "Most people, if you can just get to them on a one-to-one basis, they'll listen."

This seems to reflect his overall enforcement approach to attempt to reason violators into voluntary compliance rather than writing them up. To make this happen, says Hollingsworth, "We'll be listening more and asking to be allowed in QSOs more."

(*Ed note:* **Worldradio** *expresses its gratitude to the FCC,* Amateur News Weekly, The Hudson Loop, Amateur Radio Newsline *,the* W5YI Report *and especially to Rick Lindquist, N1RL, at the* ARRL Letter *for the information contained in this article. Much of what you read is derived from Rick's news reports and we sincerely hope we have given proper justice to his words.*)

Hamming on the schooner "Zodiac"

John Kray, KA2CNG

Recently while I was out west I had the opportunity to sail the beautiful San Juan islands for five days on the 127 foot schooner "Zodiac." I took along my 2-meter mobile and had a great deal of fun each evening operating maritime mobile from a different island. The "Zodiac" operates out of the Alaska Ferry Terminal in Bellingham, Washington.

For those of you who are 55 years of age or older, you can be part of this great adventure offered by Elderhostel, 75 Federal Street Boston, MA 02110. I highly recommend this trip even though a lot of hard team work was required of the 25 passengers and crew of 8 to hoist and lower the 7,000 square feet of sails each day. The living accommodations aboard are not the Hilton, but the meals prepared by the superb chef were worthy of any cruise line.

Orcas island is the home of the Mt. Constitution repeater and I made quite a few contacts through this machine. I was also able to work a few contacts via a Seattle repeater, all with 10 watts of power. I used a portable gel-cell power supply, a 5/8 wave antenna, and a magnetic mount secured to 270 feet of anchor chain submerged in salt water. This was probably as close as one can get to a perfect ground. The schooner is equipped with both 12 volts and 120 volts so it was no problem to keep the battery fully charged for each evening.

Because I traveled by air from the East coast I did not take along my HF rig. One of you future adventurers might consider this. Those who collect island contacts will surely be waiting for you. However, hamming is for the time the anchor chain goes down each evening (usually 5 PM) until 11 PM when the ships generator is turned off. The rest of the day is kept quite busy responding to your "Sailing Station." Those of you who love to sail and Ham will surely enjoy this adventure combining two great hobbies.

The "Zodiac" was designed and built in 1924 for J. Seward Johnson of the Johnson & Johnson pharmaceutical fortune. In 1928 she was entered in the Trans Atlantic race from New York to Spain and came in fourth. In 1931 the ZODIAC was put up for auction and purchased by the San Francisco Bar Pilots Association. She was stripped of her masts and sails and renamed the "California." For the next forty years she was the "home afloat" for ship pilots operating out of San Francisco. She was retired in 1972 and purchased by "The Vessel Zodiac Corporation." Through the efforts of hundreds of dedicated volunteers, she has been restored to her majestic beauty. On her 60th birthday, "Zodiac" was given back her maiden name. She was placed in the National Register of Historic Places in 1982.

This national maritime treasure, 74 years young is beckoning you Hams to let "Zodiac" transport you back to the age of wonder. Enjoy!

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Armed Forces Day 50th Anniversary military/amateur communications test

Bob Sutton, Chief, Army MARS

The Army, Air Force, Navy, Marine Corps, and Coast Guard are co-sponsoring the 50th annual Amateur Radio communications tests in celebration of Armed Forces Day. The celebration features traditional military/amateur cross band communications test and message receiving test. These tests give Amateur Radio operators and short wave listeners an opportunity to demonstrate their individual technical skills and receive recognition from the Secretary of Defense or the appropriate military radio station for their proven expertise. Special commemorative certificates will awarded to anyone who receives and accurately copies the Armed Forces Day digital message from the Secretary of Defense. All contacts must acknowledge by QSL card or certificate to validate military interest in these operators.

Military/amateur cross band contacts

Military-to-amateur cross band Operations will take place from 1300U 15 May to 0500U 16 May. It will include operations in single sideband voice (SSB) and digital modes (RTTY, PACTOR and AMTOR). Some stations may not operate the entire period, depending on propagation and manning. Participating military stations will transmit on selected Military frequencies and listen for Amateur Radio stations in the amateur bands indicated below. The military operator will announce the specific amateur band frequency being monitored. Duration of each contact should be limited to 3 minutes.

Station	Frequency	Emission	Amateur Band
AAH	4021.5 kHz	Various	75M
	6988.0 kHz	Various	40M
	7312.5 kHz	Various	40M
	10165.0 kHz	USB	30M
	14440.0 kHz	USB	20M
	18212.5 kHz	USB	17M
	20975.0 kHz	USB	15M

Army MARS Radio Station, Bldg 3E95, Fort Lewis, WA 98433-5000

POC: Mr. Chuck Verdon; DSN: 357-2502/3575; Com: 206/967-2502/3575

AAZ	4036.5 kHz	LSB	80M
	6908.5 kHz	USB	40M
	7422.5 kHz	LSB	40M
	13994.5 kHz	USB	20M
	13994.5 kHz	USB	20M
	21825.5 kHz	USB	15M
	27790.0 kHz	USB	10M

Hq USASC, Command MARS Station, Fort Huachuca, AZ 85613-5000

POC: Sgt Joel Boyd; DSN: 879-7072; Com: 520/533-7072

AIR	4025.0 kHz	LSB	80M
	6896.0 kHz	USB	40M
	7315.0 kHz	LSB	40M
	13986.5 kHz	RTTY	20M
	13997.5 kHz	USB	20M
	14408.0 kHz	USB	20M

789th Communications Squadron, Andrews Air Force Base, Washington, DC 20672

POC: Mr. Van Evans; DSN: 858-4746; Com: 301/619-2727

AIR-2	4490.0 kHz	USB	80M
	6996.0 kHz	USB	40M
	13985.0 kHz	USB	20M
	14398.0 kHz	USB	20M

USAF MARS Station, P.O. Box 394, Edwards AFB, CA 93523-0394

POC: Mr. Bruce Mowers; Com: 661/942-5986

NNR	4515.0 kHz	RTTY/LSB	80M
	7346.5 kHz	RTTY/USB	40M
	14480.0 kHz	RTTY/USB	20M
	19956.5 kHz	RTTY/USB	15M

NAVMARCORMARS, Radio Station, 5138 Vermont Ct., Marine Corps Base
Camp Lejeune, NC 28547

POC: SSGT Lopez; DSN 751-5203; Com: 910/451-5203

NAV-2	4015.0 kHz	RTTY/LSB	80M
	7365.0 kHz	RTTY/USB	40M
	14471.5 kHz	RTTY/USB	20M
	20680.0 kHz	RTTY/USB	15M

NAVMARCORMARS, Radio Station, 1050 Remount road, Bldg 3231, N Charleston, SC 29406-3542

POC: RMC(SW) Wright; DSN: 563-0370; Com: 803/743-0370

Station	Frequency	Emission	Amateur Band
NAV-3	4472.0 kHz	RTTY/USB	40M
	7393.0 kHz	RTTY/USB	40M
	13975.5 kHz	RTTY/USB	20M
	20998.5 kHz	RTTY/USB	15M

NAVCOMCORMARS, Radio Station, 9035 Ocean Dr., Ste 3A, Corpus Christi, TX 78419-5234

POC: Bill Menard; DSN: 861-5002; Com: 210/677-8979

NAV-4	4010.0 kHz	RTTY/LSB	80M
	7375.0 kHz	RTTY/USB	40M
	14468.5 kHz	RTTY/USB	20M
	21760.0 kHz	RTTY/USB	15M

NAVMARCORMARS, Radio Station, 615 Preble Ave., Camp Barry Bldg 153, Great Lakes, IL 60088-5705

POC: RMCS(SW) Craig Stundahl; DSN: 792-3783; Com: 847/688-3787

NBL	4040.0 kHz	RTTY/LSB	80M
	7370.0 kHz	RTTY/USB	40M
	14393.0 kHz	RTTY/USB	20M
	20625.0 kHz	RTTY/USB	15M

NAVMARCORMARS, Radio Station, PO Box 161, Naval Submarine Base, Groton, CT 06349-5161

POC: RMC(SW) Ben Thompson; DSN: 694-2061; Com: 860/694-2061

NMH	4005.0 kHz	RTTY/LSB	80M
	7385.0 kHz	RTTY/USB	40M
	14385.0 kHz	RTTY/USB	20M
	20375.0 kHz	RTTY/USB	15M

USCG Telecom. & Info. Systems Command, 7323 Telegraph Rd., Alexandria, VA 22315-3940

POC: LCDR Glidden; Com: 703/313-5601

NPL	4008.5 kHz	RTTY/LSB	80M
	7350.0 kHz	RTTY/USB	40M
	14465.0 kHz	RTTY/USB	20M
	20937.5 kHz	RTTY/USB	15M

NAVMARCORMARS Radio Station, 937 North Harbor Dr., San Diego, CA 92132-5100

POC: RMC(SW) Patrick Leach; DSN: 522-1490; Com: 619/532-1490

NUW	4826.5 kHz	RTTY/LSB	80M
	7380.0 kHz	RTTY/USB	40M
	13530.0 kHz	RTTY/USB	20M
	20954.0 kHz	RTTY/USB	15M

NAVMARCORMARS Radio Station, 260 W. Pioneer FSC Bldg, NAS Whidbey Is., WA 98277

POC: Digger O'Dell; DSN: 820-8038; Com: 360/675-2823

WAR	4018.5 kHz	LSB	80M
	6905.0 kHz	USB	40M
	7361.5 kHz	Various	40M
	13514.0 kHz	RTTY	20M
	14930.0 kHz	USB	20M
	20995.5 kHz	USB	15M

Army HF/MARS Radio Station, Fort Detrick, MD 21702-5016

POC: Mr. Ronnie Owens; DSN: 343-2727; Com: 301/619-2727

WUG-2	4030.5 kHz	LSB	80M
	6824.5 kHz	LSB	40M
	14514.0 kHz	USB	20M
	14665.0 kHz	USB	20M
	14488.0 kHZ	USB	20M

Public Affairs office, Memphis District USACE, Room B-202, 167 N. Main St., Memphis, TN 38103-18894

POC: Mr. Jim Pogue; Com: 901/544-3348

Digital modes transmitting test

Digital modes message broadcast will begin at 2340U 15 May RTTY, 100WPM, narrow shift; 0040Z 16 May (PACTOR), and 0140Z (AMTOR). A 10-minute call for tuning purposes will begin just before each broadcast. The Secretary's message will be transmitted from the following stations on the frequencies listed below: (Note: not all stations may necessarily operate on all the frequencies listed, depending on propagation and available equipment.)

Transmitting station	Freq. (kHz)
AAH	6988.0, 14488.5
AIR	13986.5
AIR-2	4490.0, 6996.0, 14405.0
NNR	7346.5, 14480.0
NAV-2	7365.0, 14471.5
NAV-3	7393.0, 13975.5
NAV-4	7375.0, 14468.5
NBL	7370.0, 14393.0
NMH	7385.0, 14385.0
NPL	7350.0, 14465.0
NUW	7380.0, 13530.0
WAR	13514.0

Submission of test entries

Transcripts of the RTTY, PACTOR, or AMTOR receiving test should be submitted "as received" No attempt should be made to correct possible transmission errors. Provide time, frequency and call sign of the military station copied, including name, call sign, and address (including ZIP code) of individual submitting the entry. Ensure this information is placed on the paper containing the test message. Each year a large number of acceptable entries are received with insufficient information, or necessary information was attached to the transcriptions and was separated, thereby precluding issuance of a certificate. Entries must be sent to following military addresses:

Stations copying AAH, or WAR send entries to:

Armed Forces Day Celebration
Chief, Army MARS
HQ, USASC
ATTN: AFSC-OPE-MA (MARS)
Fort Huachuca, AZ 85613-5000

Stations copying AIR send entries to:

Armed Forces Day Celebration
789CS/SCOJM, Alabama Ave.,SCS-3
Andrews Air Force Base
Washington, DC 20672

Stations copying AIR-2 send entries to:

Armed Forces Day Celebration
SMC/61ABG/DOM (MARS)
2430 E. EL Segundo Blvd Ste Bsmt
EL Sequndo, CA 90245-4677

Stations copying NNR, NSS-6, NAV-2, NAV-3, NAV-4, NBL, NMH, NPL, or NUW send entries to:

Armed Forces Day Celebration
Chief, Navy-Marine Corps MARS
4401 Massachusetts Avenue N.W.
Washington, DC 20394-5460

Hurricane watch net, W4EHW receive achievement awards

The Hurricane Watch Net and the operators of W4EHW at the National Hurricane Center have been selected as 1999 recipients of the National Hurricane Conference's Outstanding Achievement Award. The awards committee cited the Net's outstanding efforts in providing critical lifesaving information on hurricanes Georges and Mitch. The award also recognizes the Net's 33 years of valuable service to storm-threatened residents of the Caribbean and Central America.

The Outstanding Achievement Award to the 30 W4EHW operators comes on the heels of Certificates of Commendation presented in late January by National Hurricane Center Deputy Director Max Mayfield. "The operators of W4EHW are very proud and honored to receive this award from the National Hurricane Conference," said W4EHW Amateur Radio Coordinator John McHugh, KU4GY. Hurricane Watch Net Manager Jerry Herman, N3BDW, congratulated net members. "This is a major award, and to the members of the Net, this is your award," he said. "You should be extremely proud to be recognized for your accomplishments by such a prestigious group."

The National Hurricane Conference is comprised, primarily, of emergency management and meteorological professionals involved in hurricane preparedness, response and mitigation.

The awards will be among several presented April 1 during the 21st annual National Hurricane Conference meeting in Orlando. — *ARRL Letter*

Awards

100 Nations Award

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

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

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

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

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

3. W-100-N is difficult to achieve, yet 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 considered.

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.***

Special Events

TOUR DE LOUISIANA

Springhill ARC is sponsoring special event station W5S celebrating 300 years of Acadian-French influence on the culture of Louisiana and the start of the bicycle "Tour de Louisiana." The station will be on the air fron 0000U 22 May to 2400U 04 June, in the general portions of the 80 to 10-meter bands using SSB and CW. For a certificate send a 9X12" SASE to SARC, Inc. P.O. Box 722, Springhill, LA 71075.

NATIONAL POLICE WEEK

COPS Contest Club is sponsoring W6P(olice), commemorating NPW. W6P will operate 0000U 09 May - 2400U 15 May. Operations will be during the day on the weekend days and during the evening (Pacific Time) during the week.

Bob Ferrero, W6RJ, owner of Ham Radio Outlet and a former law enforcement officer is donating certificates for stations that contact W6P. To obtain your certificate, send a 9x12" SASE with $2 in U.S. funds along with your QSL card. $1 will be donated to the National Law Enforcement Officers Memorial Fund in Washington, DC. QSL cards received which do not contain the appropriate envelope and funds will not receive a certificate. Mail your request to: Jerry Boyd, K6BZ, P.O. Box 252, Igo, CA 96047-0252.

SAMUEL F.B. MORSE

Poughkeepsie ARC will be operating as W2CVT from the home of Samuel F.B. Morse from 1200-2200U on 14 and 16 May. Suggested frequencies will be 7.120, 14.270 21.120 and 28.375 MHz. Certificates are available by contacting Don Stein, W2PTF, 3 Little Rd. Wappingers Falls, NY 12590.

ALTOONA SESQUICENTENNIAL

Horseshoe ARC will be on the air with K3A celebrating the Sesquicentennial. 1400-2200U on 15 and 16 May in the lower 25 kHz of 40, 20 and 15-meter General phone bands and the 10-meter Novice/Tech band. Certificates are available by contacting Ted Holland, 217-19 5th Ave., Altoona, PA 16602 or WB3AVD callbook address.

WACO'S 150TH

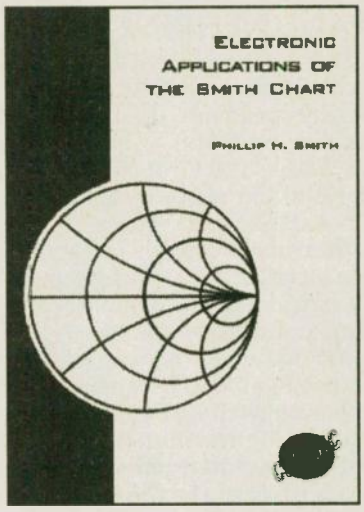
Heart of Texas DX society will operate W5V commemorating the 150th anniversary of Waco, TX. Operation will be from 1500U 08 May until 2400U 22 May. Suggested frequencies are 7.250, 14,250, 21.35 and 28.450 MHz. For a certificate send a QSL card and 9X12" SASE to Larry Merritt, KC5FBM, P.O. Box 3501, Waco, TX 76707.

The Smith Chart

Electronic Applications of the Smith Chart

by Phillip H. Smith

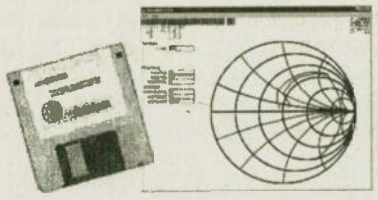
This is an updated edition of the original, classic reference book by the legendary Smith Chart inventor himself. This book describes how the Smith Chart is used for designing lumped element and transmission line circuits and includes tutorial material on transmission line theory and behavior, circuit 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

*win*SMITH

An easy-to-use computerized Smith Chart for your PC



winSmith, *by Eagleware Corp*

With ***winSMITH,*** engineers can have their PCs draw the Smith Chart and measure the distances from one point to another. Easily creates ladder networks of up to nine elements, which can be transmission line segments, inductors, resistors or capacitors, or user-defined elements. Schematic entry simplifies circuit definition, and the Smith Chart display makes manipulation of values a simple task. Can do frequency sweeps, fine or coarse tuning as needed, and provides precise numerical results.

One 3.5" disk. Runs under Windows 3.1, 95 or NT.

Our Price $79.00

Introduction to the Smith Chart

This video teaches the Smith Chart in 50 minutes. ***Introduction to the Smith Chart*** is all engineers need to start using the chart to solve all types of transmission line and matching problems. This is a painless way to learn about the chart, designed to accompany the book *Electronic Applications of the Smith Chart* and the *winSMITH* software package described above. An excellent way for young engineers to learn this important visualization tool and a good review for experienced engineers.

Our Price $99.00

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Silent Keys

PAUL NEHRING, W9GCD

Paul Nehring, W9GCD or DeKalb, IL. died 16 February 1999. He was born in nearby Sycamore, IL. in 1911 and was the vice president of Nehring Electrical Works, The First National Bank of DeKalb and was president of Genoa State Bank. Paul received his license in the early 1930s. His father had a station installed at his workplace, Nehring Electrical Works, using used Collins gear and a large 3-element 20-meter beam mounted on the roof. Every chance Paul had, he was on the radio. In his spare time, Paul was one of the guiding lights that helped put the DeKalb repeater, one of the first between Chicago and the Iowa border, on the air in 1970.

HAL (HAROLD) E. NAHMENS, W6JK

Hal Nahmens, W6JK, of Pinole, CA. died 29 December 1998. He was an early Section Manager for the ARRL in the 1930s. Hal got his start in Amateur Radio by using a high powered spark transmitter. One of his early calls was W6HT. Having lost his sight, Hal remained active on 40 Meters CW, and was very skilled in the use of a "Bug" and was a master of genuine Marconi Morse code. Hal was an active member of the "Society of Wireless Pioneers."

JOHN BAUGH, KA9JKR

John Baugh, KA9JKR of Sycamore, IL. died 23 February 1999. He was born in Martinsville, In. in December 1952. John was a pressman at Castle Printech and as a computer operator at Kishwaukee Community College. He was mostly active on 2 Meters and was one of the early computer and PACKET enthusiasts. For the past several years, he was the "hat man" at Illinois Hamfests and at the Indy 500. As a racing fan, he attended every Indy 500 since early childhood.

JOHN ALLAWAY, G3FKM

International Amateur Radio Union Region 1 Secretary Dr John Allaway, G3FKM, of Birmingham, England, died 07 March after a long illness. Allaway was elected IARU Region 1 Secretary in 1984 and was re-elected for four more three-year terms. In that capacity he served on the IARU Administrative Council.

Over the years Allaway, a physician and an eminent and widely respected Amateur Radio figure, had held a number of high-profile posts. Former RSGB General Manager David Evans, G3OUF/VE6DXX, recalls that Allaway served on all major RSGB Committees including the Telecomms Liaison Committee and was Chairman of the Finance and Staff Committee for many years. "He worked very hard for the cause of Amateur Radio and attended just about every RSGB meeting possible," he said.

John Allaway was also RSGB president twice, in 1976 and again in 1982. His remarkable commitment to the hobby was highlighted by his many years on RSGB Council, where he served four terms as an Ordinary Member during a 30-year period.

ARRL Executive Vice President David Sumner, K1ZZ, remembers Allaway's attendance at the IARU Region 2 Conference in Buenos Aires in 1986. "That was a low point in relations between Argentina and Great Britain. The memories of the Falklands War were still fresh," he recalls. "John had to obtain his visa via a third country, and he was a bit nervous about the sort of reception he might receive. He needn't have worried: the combination of the graciousness of our Argentine hosts and John's own humble, yet engaging, personality turned the event into the sort of minor triumph of personal diplomacy that is so often the hallmark of Amateur Radio."

An ARRL member and dedicated HF operator, Allaway's call sign appeared on the DXCC Honor Roll for many years. Allaway also wrote the HF column in the RSGB journal RadCom from 1966 until 1998. Recently, he was dubbed a Knight of the Order of the Golden Key by the Norwegian Radio Relay League for his many years of service to the RSGB, the IARU, and Amateur Radio in General. The award is the NRRL's top honor. — *K1ZZ, RSGB, ARRL Letter*

(Ed. The April 1999 issue of **Worldradio** *listed the callsign of James Jarvis (SK) as W9KGM. His correct call was W9KCM)*

Station Appearance

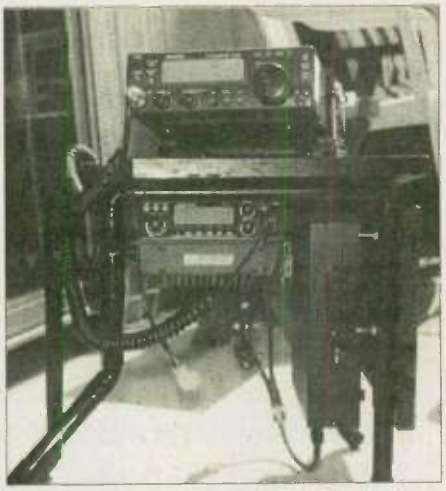
*Send **Worldradio** a picture of your shack and the staff will choose a winner to receive a free one-year subscription to **Worldradio**! Stations will be judged by neatness (wires tucked away, etc.) and accessibility of equipment. Monetary value of equipment is not a consideration.*

Bob Pratt, W9ZC

I wanted to mount my mobile radios at a comfortable height and to clear the 4-wheel drive shift lever mounted on the floor. I like to work with 3/4 inch copper tubing and the results are as shown in the pictures. This could also be accomplished using smaller copper tubing or plastic tubing.

On top is a Kenwood TS-50 HF rig. The tuner is mounted next to the Radio Shack HXT-212 2-meter rig. The mount straddles the drive shaft hump and gives me room to move the 4-wheel drive shift lever.

My antennas include a 2 meter magmount 5/8 wave on the roof and "Ham Stick" antennas mounted on each end of the metal rear bumper. I usually have a 20 and a 40-meter whip mounted but do have "Ham Stick" antennas for the other HF bands when needed. I use a two position antenna switch to switch between the two antennas.



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**!*

The key to good music.....

A friend recently gave me a keyboard she couldn't manage, but for two or three weeks she couldn't find the plug-in pedal for the keyboard. This pedal is very impoortant for musicians that want to play the keyboard well and smoothly.

Being the genius that I am, I dug up an old telegraph key and used it as a pedal until the real thing was found.

John Wolozyn, W9ORS
McFarland, WI.

Letters to the Editor

Remembering JY1

I have been involved in Amateur Radio ever since 1961 when I received the call of WN2ETV. I was living in Northern New Jersey at the time, and I had an old DX-40 and an old Hallicrafters SX-140 receiver with a Mosley vertical antenna on my roof about 60 feet in the air. I can still recall the cold winter nights I would fire up my DX-40 and sit there and work the different states and the thrill it was to receive a QSL card from the stations worked. As time went on, I went to college and got away from Ham radio for a while. In 1967 I went back to it and at that time I received my Advanced license and received the call of WA2QHV. Now I had a brand new Swan 500C with a full KW and a three-element Mosely beam about 100 feet in the air! I was introduced to something called SSB. I went off of CW for a while and worked SSB 90% of the time.

I can't recall when it was, but I believe it was back in 1969, when I remember reading in *QST* that King Hussein of Jordan had received his Amateur Radio license and was on the air as JY1. I also remember reading how a U.S. amateur (I believed it was Don Miller, W9NWV) took a trip to Jordan to help the King set up his Drake line and to show him the basics of Amateur Radio.

One night, while listening to the 20-meter band, I came across a very strong signal and a gentleman with an accent calling CQ. When I heard that it was JY1, I almost fell out of my seat! I couldn't believe it! It was King Hussein! After he said, "This is JY1 calling CQ and standing by" I gave him a call. I heard many stations calling him. I will never forget hearing, "WA2QHV this is JY1, good evening to you my friend, this is Hussein." I just couldn't believe it! What a thrill! I remember we had about a two minute QSO and I asked him for a QSL. Later on throughout that year, I remember talking to him again a few more times, and signing onto a net he conducted called the "Arabian Knights" net on 20 Meters in which we worked "cross-band" with him. There were people from all over the world signing into this net. What a thrill! In later days I worked his wife, Muna, who was JY2, and a Captain in his army, JY3.

It was very sad to hear about the recent passing of King Hussein. He was a great ambassador to Amateur Radio and a friendly voice on 20 Meters. 73, Your Majesty.

Lon Cerame, KE6MLH
Camarillo, CA

USS *Hornet*

In reference to the article on the USS *Hornet* in the April issue of ***Worldradio.*** On 19 July 1998, there was an Amateur Radio station, K6PUD, claiming he was on the USS *Hornet*. I worked him at 1847U on 14.227 kHz. I am sure that I got his call correct. I sent a QSL with an SASE, but nothing received back. Perhaps this was a pirate or phony set up. If you know of anyone else who might have contacted this party, perhaps some light could be shed on this situation.

K.B. "Red" Anderson, W7LQU
Rigby, ID

Joe Walsh to entertain at Dayton Banquet

Entertainer Joe Walsh, WB6ACU, will be this years Dayton Hamvention banquet entertainment. According to Hamventon Chairman Dick Miller, N8CBU, Walsh and his band will appear in concert at the gathering.

For those of you not aware, in addition to being an avid Amateur Radio operator, Joe Walsh has created some of the most memorable guitar work in the history of rock and roll. This in his own solo work and as a member of the group — The Eagles.

1999 marks the second consecutive year that the Dayton Amateur Radio Association has opted to sponsor a musical event as a part of Hamvention. Last year, country singer Ronnie Milsap, WB4KCG, provided a truly knock-out show.

For more information on Hamvention '99 visit its website at www.hamvention.org. — *DARA, Newsline*

W-100-N

No applications were processed for the Worked 100 Nations Award during the month of February 1999.

CATZ

The following DXer was awarded *Worldradio*'s CATZ award during the month of February 1999:

8. Josef Tomas OK1ZP All CW
25 Feb 1999

I received a response from one applicant I rejected for not identifying the location of the contacts. He stated his cards were inspected by two fellow amateurs; therefore, he did not have to identify them. The purpose of the certification by others is to verify that the applicant does have the cards in his possession. I had told him that two of his cards, HK6KKK and VKØWH, could not be identified. His response was, "the two operators who verified my cards knew the location of all my cards."

If you do know the exact longitude it would be very helpful to me when checking applications.

The applicant also claimed that his contacts were based on the 24 time zones found in the Rand McNally World Atlas. No, they are based on longitude, in 15-minute increments. It clearly states this in the rules.

Libya (5A)

The *Ohio/Penn DX Bulletin* notes that Abubaker, 5A1A, continues to be active on 10-meter CW, mostly weekends around 28.040 MHz from 1545 to 1630 UTC. On SSB listen for him on 28.445 MHz about the same time. Abubaker recommends when requesting a QSL card from him to use registered mail only via P.O. Box 74421, Tripoli, LIBYA.

Tanzania (5H)

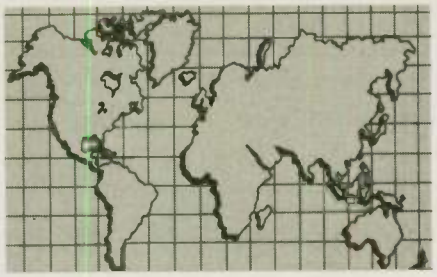
Also noted in the *Ohio/Penn DX Bulletin*, Ralph Karhammar, 5H3RK, is very active from Tanzania, especially on CW. His preference is the lower bands when possible. Attached to the Swedish Embassy, he should be active for the next couple of years.

Also active from Tanzania is Dave Heil, K8MN, signing with 5H3US.

Burundi (9U)

The following is an important note from the DXCC Desk regarding the DXCC status of 9U Burundi contacts.

Over the years since 1994, the DXCC Desk has received several pieces of documentation for operations from 9U, Burundi. This documentation was accompanied by license copies, complete with stamps and signatures. However, the DXCC Desk had heard rumors that these documents were in fact forgeries, and not authentic documents.



Director General of ONATEL, the communications authorities in Burundi, contacted us by fax inquiring as to whether we had seen licenses from Burundi. After several faxes back and forth, they informed us that the licenses were forgeries. The signature on the documents was that of an official who had not been in that position for some time.

Since that time, the DXCC Desk has been rejecting cards for those operations concerned. As soon as it is possible for the DXCC computer program to do so, all contacts from those operations will be purged from the DXCC database. This affects all operations since 1994 using a 9U prefix.

The submission of forged documentation is a clear violation of DXCC Section 1, Basic Rule 7, and Rule 12 (a).

Palestine (E4)

With this new entity now on the list, all contacts with this one after 01 February 1999 will count. Those former Palestine (ZC6) contacts you made prior to 30 June 1968 do not count for this entity, as there is no commonality or administration. Palestine (E4) will be a new one for everyone. Please do not submit for DXCC credit before 01 October 1999.

During the month of February activity from Palestine was on the bands. Martti Laine, OH2BH, Pekka Kolehmainen, OH1RY; Pekka Holista, OH2TA; and Bernie McClenny, W3UR, fired up E44DX for the first time shortly after 1200 UTC, 16 February, from the Palestine Hotel in Gaza City. The historic event had the full support of the Palestinian National Authority's Ministry of Posts and Telecommunications. This call is assigned to the Palestine Wireless Society. Two stations were active during this initial period which lasted through 23 February.

The highlight for the DXpedition team was their meeting with Palestinian leader Yasser Arafat, who expressed his support for Amateur Radio and sent his regard to the worldwide amateur community. The operation managed to collect 33,775 contacts during the operation. This total included 14,640 unique calls.

Following this affair another team of seven members, the International Amateur Radio Volunteers (IARV) led by Yoshi Hayashi, JA1UT, was active and had planned to be active with E44MPT. However, no activity was reported using this call. Members of the team used their own calls, including JA1UT/E4, and Toshi Kawanishi, E44/JA8RUZ. Also with the Japanese team was Hiro Tsukahara, JP1TRJ.

Other calls reported during the first month of this new entity included Ali Yashruti, JY4NE and ex-ZC6A, signing with E44A, Sami, ex-ZC6B, signing with E44B, and E44I, all active since 13 February.

Very active on CW from 23 February was E44/HA1AG, an operation by four Hugarians: Zoli Pitman, HA1AG; Gyula Felber, HA1TJ; Anti Hudanik, HA3OV; and Laci Alisca, HA3NU, with two stations on the air, 24 hours a day. They were active through 03 March. The team also spent some time working SSB and RTTY. However, the bulk of the contacts was CW, over 18,000. Some activity was on 80 Meters, and every time they keyed the rig the hotel phones would begin to ring, limiting their power to 60 watts.

Central African Republic (TL)

Alex van Hengel, PA1AW, reports the TL5A/TLØA group collected over 75,000 contacts during their operation from the Central African Republic.

I O T A

Here are a few calls reported during the month of February. I may have missed some as I was out of town between 11 and 21 February.

AF-038 E3ØLA	Dahlak Archipelag	01 Feb
AF-040 5Z4LI	Lamu Island	18-24 Feb
AF-080 E3ØLA	Sheikh Said Island	02-03 Feb
AF-080 E3ØMA	Sheikh Said Island	03 Feb
AF-081 E3ØLA	Gerebsasa Island	06-07 Feb

DX Prediction — May 1999

Maximum usable frequecy from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 939, Vienna, VA 22183). The numbers listed in each section are the average maximum usable frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa—Kenya/Nairobi, Asia—Japan/Tokyo, Oceania—Australia/Melbourne, Europe—Germany/Frankfurt, and South America—Brazil/Rio de Janeiro. Smoothed sunspot number = 143. Chance of contact as determined by path loss is indicated as bold ***MUF** for good, plain MUF for fair, and in *(parentheses)* for poor. UTC in hours.

CENTRAL U.S.A.

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	*(19)*	***19**	***25**	**16**	***20**
10	23	***16**	***22**	***22**	***21**
12	29	***22**	***20**	***26**	***29**
14	33	***22**	***19**	***28**	***35**
16	***35**	18	18	***30**	***39**
18	***36**	*(17)*	17	***28**	***42**
20	***35**	23	35	***26**	***43**
22	***29**	26	***42**	***23**	***43**
24	25	***29**	***44**	***19**	***35**
2	***22**	***29**	***44**	***16**	***29**
4	***23**	26	***42**	***19**	***25**
6	24	***23**	***36**	***19**	***22**

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	*(19)*	***20**	***23**	*(17)*	***24**
12	27	***16**	***21**	23	22
14	31	***19**	***19**	***26**	***30**
16	34	19	18	***29**	***36**
18	***36**	***24**	18	***27**	***39**
20	***35**	***29**	***35**	23	***42**
22	***29**	***30**	***42**	18	***41**
24	25	***31**	***43**	16	***37**
2	22	***30**	***44**	14	***31**
4	***23**	***29**	***43**	***22**	***26**
6	***28**	***27**	***37**	***23**	***23**
8	23	***24**	***26**	***19**	***21**

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	***25**	19	***29**	16	***21**
9	27	*(17)*	***22**	***21**	***20**
11	***34**	23	***20**	***26**	***29**
13	***39**	***24**	*(19)*	***28**	***35**
15	***43**	20	*(18)*	***29**	***39**
17	***42**	*(16)*	*(17)*	***29**	***41**
19	***38**	22	27	***28**	***43**
21	***32**	26	39	***26**	***43**
23	***27**	***28**	***43**	***23**	***39**
1	***23**	***28**	***44**	***20**	***32**
3	***19**	25	***43**	***17**	***27**
5	***28**	***23**	***35**	***20**	***24**

AF-081 E3ØMA	Gerebsasa Islasnd	06 Feb
AN-006 EM1LV/P	Peterman Island	02 Feb
AN-006 EM1LV	Galindez Island	07-28 Feb
AS-005 RZ9DX/Ø	Dickson Island	04 Feb
AS-008 JF1RWZ/1	Izu-Ooshima	27 Feb
AS-008 7K3EOP/1	Miyake Island	06 Feb
AS-012 JA6LCJ/6	Amakusa Archipelago	12-14 Feb
AS-015 9M2TO	Pinang Island	01-07 Feb
AS-015 9M2/JE1ETU	Pinang Island	28 Feb
AS-017 JS6PSV	Okinawa Island	24 Feb
AS-024 JS6PMR	Yonaguni Island	09-28 Feb
AS-024 JR6USF	Isigaki Island	01-24 Feb
AS-028 UAØQBA	Kotelney Island	09-27 Feb
AS-028 UAØQMU	Kotelney Island	01-26 Feb
AS-040 JH6TYD/6	Goto Island	27 Feb
AS-043 7N4FMZ/1	Nampo Archipelago	07 Feb
AS-053 HSØ/IK4MRH	Phuket Island	23-27 Feb
AS-079 JA5CKD/6	Miyako Island	02-17 Feb
AS-083 RA9LI/9	Belyy Island	02-28 Feb
AS-136 BI4CM	Chongming Island	19-22 Feb
EU-008 GM3PGY	Tiree Island	21 Feb
EU-009 GM3POI	Orkney Islands	03-26 Feb
EU-009 GMØHTG	Mainland Isl (Orkneys)	06-09 Feb
EU-010 GM4CHX/P	Outer Hebrides	24-26 Feb
EU-016 9A4RU	Brac Island	07 Feb
EU-016 9A2GF	Brac Island	07-24 Feb
EU-020 SM1LF	Gotland Island	21 Feb
EU-029 OZ1ENH	Falster Island	21-23 Feb
EU-031 IC8WIC	Isle of Capri	02 Feb
EU-034 ESØNW	Hiiumaa Island	21 Feb
EU-037 SM7DLZ	Oland Island	02-10 Feb
EU-042 DJ9LV	Sylt Island	06 Feb
EU-049 SV8DTP	Lemnos Island	25 Feb
EU-049 SV8DCY	Lesvos Island	06-28 Feb
EU-049 SV8DTD	Lesvos Island	22 Feb
EU-049 SV8CRI	Lesvos Island	09 Feb
EU-049 SV8CYV	Samos Island	10 Feb
EU-052 SV8CKM	Kefalonia Island	27-28 Feb
EU-052 SV8JE	Kefalonia Island	27 Feb
EU-052 SV8CS	Zante Island	25 Feb
EU-061 LA/DL4MN/P	Tjome Island	01-03 Feb
EU-062 LA6OP	Helligar Islands	25-27 Feb
EU-064 F5SGI/P	Noirmoutier Island	21-26 Feb
EU-067 SV1CIB/SV8	Andros Island	24-25 Feb
EU-075 SV1TP/P	Poros Island	21-24 Feb
EU-082 U1ZA/A	Kildin Island	24 Feb
EU-096 OH1LEG	Kemio Island	21 Feb
EU-120 G3KFG	Isle of Wight	27 Feb
EU-120 MØBTP	Isle of Wight	26 Feb
EU-124 GWØSLM	Anglesey Island	09 Feb
EU-124 GWØMOI	Anglesey Island	07-23 Feb
EU-124 MWØAUX	Anglesey Island	01 Feb
EU-124 GWØHYF	Anglesey Island	26 Feb
EU-133 R1ASP	Kotlin Island	02-10 Feb
EU-136 9A6DCR	Krk Island	06-24 Feb
EU-137 SM/DL2MX	Ven Island	02-07 Feb
EU-137 SM/DL5RFF	Ven Island	03-07 Feb
EU-146 PA/IV3UHL/P	Showen Island	23-24 Feb
NA-034 KM4RX	Anna Maria Island	23 Feb
NA-034 AH6JN/4	Anna Maria Island	17-27 Feb
NA-036 VE7GDJ	Vancouver Island	23 Feb
NA-036 VE7IM	Vancouver Island	09-22 Feb
NA-051 VE7QCR	Quuen Charlotte Is.	10 Feb
NA-055 AK1L	Vinylhaven Island	01-28 Feb
NA-057 AH6PN/HR6	Roatan Island	02-14 Feb
NA-062 K2ZR/4	Key West	22-28 Feb
NA-062 N3OC/M	Key West	26 Feb
NA-062 K4SUS	Key Largo	05 Feb
NA-065 N6FD/7	Fidalgo Island	10-28 Feb
NA-071 HP3/F5PAC	Boca Brava Island	15-17 Feb
NA-072 HP1/F5PAC	Contadora Island	10 Feb
NA-072 HP1XVH	Contadora Island	07 Feb
NA-080 WA3WSJ/C6A	Abaco Island	23 Feb
NA-088 HP4/F5PAC	Isla Colon	20-21 Feb
NA-123 V31RL	Turneffe Island	02-04 Feb
NA-123 V31JZ	Turneffe Island	01-05 Feb
NA-168 KB5GL/5	Grand Isle	21 Feb
NA-202 HP2/F5PAC	Isla Grande	22-24 Feb
OC-011 V63KU	Truk Island	01-14 Feb
OC-027 FO5QG	Nuka Hiva Island	01-23 Feb
OC-046 FO5JV	Tahiti Island	01-05 Feb
OC-050 FOØXUU	Rurutu Island	02-10 Feb
OC-050 FOØAWI	Rurutu Island	01-10 Feb
OC-059 V63AO	Kosrae Island	01-27 Feb
OC-065 H4ØFN	Pigeon Island	01-05 Feb
OC-065 H4ØMS	Pigeon Island	02-28 Feb
OC-129 K9AW/DU6	Negros Island	06 Feb
OC-143 YB5QZ	Sumatra Island	09 Feb
OC-149 H44NC	New Georgia Is.	01-25 Feb
OC-169 A35RK	Ha'apai Island	07-26 Feb
OC-199 VK6ISL	Malus Island	20 Feb
OC-210 YC8RBC	Sangihe Island	27 Feb
SA-026 PQ5Q	Anhatommirim Is.	13-26 Feb
SA-046 PY7ZY/7	Itamaraca Island	06-16 Feb

IOTA Contest

The annual RSGB IOTA Contest expects some very interesting activity this coming July. If you are collecting islands this is a good contest to be involved in. Another feature of the program is if you operate from an island you can claim credit for having worked the island.

This year the event will be the weekend of 24 and 25 July. The following island groups are planned to be activated:

EU-011	St Mary's Island	G5M
EU-038	Texel Island	PA6TEX
EU-064	Yeu Island	
EU-065	Quessant Island	
EU-123	Bute Island	MM8Y
NA-165	Tatoosh Island	
SA-046	Itamaraca Island	ZX7XX

SWODXA Annual Dinner

For those of you attending the annual Dayton Hamvention, the gathering of deserving DXers at the Friday evening DX dinner is one of the highlights. Sponsored by the Southwest Ohio DX Association, this year's event will be on 14 May at the Crowne Plaza Hotel. Tickets cost $31 each and can be ordered from Steven A. Caesar, NH7C, P.O. Box 273, Beavercreek, OH. For addition information please contact Steve Bolia, N8BJQ, at (937) 788-2803 or n8bjq@erinet.com.

Most Wanted List

In past years I have listed the most wanted DXCC entities, which was prepared by *The DX Magazine*. This selection comes from a survey taken from subscribers to *425 DX News*. The list contains a total of 50, which is half of the amount poled by *The DX Magazine*. As in the past I will settle for just the top 10. The results are from over 500 subscribers who responded:

P5	North Korea	100.00
A5	Bhutan	56.70
VU4	Andaman & Nicobar Is.	55.65
BS7	Scarborough Reef	49.91
3Y	Bouvet Island	47.13
VU7	Laccadive Islands	42.78
7O	Yemen	42.26
3CØ	Pagalu Island	38.96
VKØ	Macquarie Island	38.61
KH5K	Kingman Reef	36.17

If interested the full results of this survey are available from www.425dxn.org/survey/mostwntd.html.

CW - Alive and well?

End of Road for Morse Code's Dots and Dashes. This little item was forwarded by Stu Greene, WA2MOE, from an article in Reuters, a London based publication which I found very interesting. I have included the item which reads as follows:

"LONDON, Feb 1 (Reuters) — Morse Code, which spelt out the demise of the

Titanic and the end of two World Wars, on Monday fell victim to the relentless march of technology. For those in peril on the sea, three dots, three dashes and three dots once spelt out SOS — the universally recognized call sign for a ship in distress.

"Now Morse is being replaced by a satellite-based 'Mayday' system on all ships over 300 tons which have to carry satellite and radio equipment for sending and receiving distress alerts. 'Morse is a system that has played an incalculable part in the development of trade and history itself — but it has now died of old age,' said Roger Cohn of the International Maritime Organization. It was invented in 1832 — appropriately enough on a Transatlantic sea crossing — by Massachusetts portrait painter Samuel Morse. His system, the 19th century precursor of the Internet, was hailed in its heyday as 'the instantaneous highway of thought.'

"By the time of his death in 1872, the world boasted 650,000 miles (one million km) of telegraph lines on land and 30,000 miles of submarine cable.

"With Marconi's invention of the wireless, Morse Code was given a new lease on life. In 1899, the first shipwreck was reported by Morse code in the English Channel

"By 1910, Morse had even trapped its first murderer when the notorious British killer Dr. Crippen was trapped. A message was tapped out to the liner Montrose on which he was trying to escape to Canada with his mistress.

"Tragedy struck in 1912 when the fateful message 'SOS. Come at once. We have struck berg' was tapped out by the *Titanic*. Hundreds of lives could have been saved by the liner *California*, just miles away. But its radio operator was not on duty and never heard the message. From then on, all ships maintained a 24-hour radio watch.

"The radio telegraph station in Isahaya, Japan, closed on Sunday after more than 90 years of operation.

"And Scottish coastguards, who picked up a Morse Code message from a listing cargo ship last month, confessed they were so surprised that they thought it was a joke.

"The *London Times*, reflecting nostalgically on the 19th century answer to e-mail, said in an editorial on Monday: 'Morse broadcast the ceasefires of both

World Wars. It was used by generals and spies, speculators, journalists and prisoners communicating with the next cell.'And then it concluded sadly...'Over and Out.' *(Copyright Reuters Limited 1999.)*

More Morse

Bud Weisberg, K2YOF, added some pertinate information for the above article and comments: "With respect to the Reuters dispatch that Stu forwarded...I hate sharpshooting such an illustrious entity as Reuters, which has been a purveyor of information and misinformation for so many years but, whatever Samuel Finley Breese Morse actually did invent while at sea in 1832, it wasn't the telegraph or the code. The first electro-magnetic telegraph was invented by Joseph Henry, who exhibited it in 1831 at the Albany Academy, Albany N.Y. (Bibliographies upon request). That was the year before Sam went sailing.

"The first telegraphic communication system in which dots and dashes represented letters was invented by Alfred Vail of Morristown, N.J., in September 1837. Vail was a student at NYU and an assistant to Professor Morse. I don't imagine Morse objecting to his name being attached to the code.

"What he, Morse, probably engineered while crossing the Atlantic, was the marriage of the hardware and software into a viable commercial system...which was as valuable as the conception of its parts.

"Enough of this... let's get on with the burial of CW."

That last statement is that of Bud — not me. Although CW may be considered antique there are still many amateurs who love it. And, let's keep it in Amateur Radio.

Rumors!

Jim Reid, KH7M, comments that the FCC has been receiving too many complaints about locations vs. call sign prefixes and is seriously considering returning to the former rule of requesting calls to be appended with the prefix of the call area they are operating from if they differ as such. So, those of you who have those vanity calls that don't agree with where you are residing, guess what?

Antique QSL Department

Here is another selection of antique QSL cards. The ES5C card was provided by Bob Truhlar, W9LNQ, and comes from the estate of Roy Weisbach, W9UX, who had resided in Chicago.

The date of the contact was 06 April 1934. At that time Estonia had not been grabbed up by Joe Stalin. Note that Estonia once again has this prefix. ES5C was very active in those pre-World War II days. I have included this particular call twice before: in May of 1983 and 1990.

The second card was also from Roy for a contact made in 1958 with FF8AD of Dakar in French West Africa. The card is silver with red call letters. Two years later this one joined the deleted countries list.

Here is another pre-war card, this one dating from 17 March 1934. KA1NA was from the Philippines and the time was given as 0637 PST, which I assume meant Philippine Standard Time. The operator was given as Redgrove. This card was provided by Al Miller, VE7KC, which was from the collection of a friend, J. King Cavalsky, VE7AL, of Vancouver; the call in those years was VE5AL, as there was no 7th call area.

QSL Information

When requesting a QSL card direct from a manager in Germany be sure to include two green stamps, as the cost of an airmail return is about DM3.00. That amounts to about $1.80 in U.S. dollars. This is a case where it would be less costly to send a single IRC for return postage.

Earl Gosnell, N7NZ, recommends sending overseas QSL cards as marked "Small Packets." However, each must include Form 2976 (green label). I am not sure if this will go via air mail and exactly how much you can save in postage. I would suggest you inquire at your local post office for further informtion.

Roberto Diaz, EA4DX, says a total of 15,500 contacts were made with the 3D2DX DXpedition last September and QSL requests should have been received by now. If not, you can reach Roberto by e-mail at rdiazg@nexo.ea and he will check on the status. Do not send requests to him via the bureau. All the remaining contacts that were not requested via direct response will automatically be sent via your bureau system beginning this July.

Ken Sobel, W3JJ, reports he was informed by H4ØMS that all QSL requests will not be answered until after July 1999.

Thanks go to the following contributors for this month's column: EA4DX, PA1AW, VE7KC, N2AU, WA2MOE, K2YOF, W3JJ, N4GN, KG6AR, KH7M, N7NZ, K8JP, W9LNQ, Northern Arizona DX Assoc. (W7YS), American Radio Relay League (NC1L), WebCluster (OH2AQ), *425 DX News* (I1JQJ,), *The OPDX Bulletin* (KB8NW), *DX-News* (NJDXA), *The Low Band Monitor* (KØCS), *Island/DX News* (N5VL), *The Daily DX* (W3UR), *QRZ DX* (N4AA), and *DX News Sheet* (G4BUE).

Hope you all landed E44DX for a new one. Unfortunately for me, I was in Alaska during the big event. Winter in Alaska is just as great as being there in the summer. 73 de John N6JM. — *John F.W. Minke III, N6JM, can be reached at: P.O. Box 310, Carmichael, CA 95609-0310 or via e-mail: n6jm@pacbell.net.*

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UE9AZA UA9AB
UG/UV3ZZ UA9AB
UI8/UA9AN UA9AB
UJ8RA UA9AB
UJ9A UA9AB
UK7R UA9AB
UK8AX UA9AB
UK8GK RW6HS
UK8OM IK2QPR
UK9AAN UA9AB
UK9ADT UA9AB
UL7VV UA9AB
UN2L UA9AB
UN4L UA9AB
UN7EG DL8KAC
UN7LT UA9AB
UN7VV UA9AB
UP50V UA9AB
UR4NWW Radio Club Station, P.O.Box 8100, Vinnytsya, 286050, Ukraine
UR4NWW/P UR4NWW
UR5NX UR4NWW
UR5U UX1KA
US9AWA UA9AB
UT2UB P.O.Box 99, Kiev, 252010 Ukraine
UT5NR UR4NWW
UT7QF UA9AB
UT9NA UR4NWW
UW8V/UA0UBGUA9AB
UW9AR UA9AB
UX0FF Nikolay Lavreka, P.O.Box 3, Izmail Centre, 272630, Ukraine
UX1KA Roman Bratchik, P.O.Box 88, Kiev, 252191, Ukraine
UX3FW Yurij Kucherenko, P.O.Box 60, Izmail Centre, 272630, Ukraine
UX6F UX3FW
UZ9AXB UA9AB
UZ9AYA UA9AB
V26MM K3MM
V26O N5NJ
V26RA K3RA
V31JP KA9WON
V31LG AB2DM
V31RC WG9L
V44KJ WB2TSL
V47KP K2SB
V51HZ DL6OBS
V63HC KQ1F
V63HO KQ1F
V63X KQ1F
V63YP KQ1F
V73LN W7LN
V73UX V73AX
VI3GP VK3ER
VK2CE Kevin J.Mulcahy, P.O.Box 300, Merrimbula 2548, Australia
VK6HD Michael E.Bazley, P.O.Box 5594, Albany, WA 6332, Australia
VK8AN VK4AAR
VK8AN/6 VK4AAR
VK9EEH W8WC
VK9XX W0YG
VO2YR Dan Murray, P.O.Box 478, Station A, Goose Bay, Newfoundland,A0P 1S0, Canada
VP2EY HB9SL
VP2VW Worrell A. Bertrand, P. O. Box 8, Road Town, Tortola, BRITISH VIRGIN ISLANDS
VP5GA N2GA
VP5GA N2GA
VP8CRB K4QD
VP8CSA DL1SDN
VQ9DX AA5DX
VQ9KV N1TO
VQ9QM W4QM
VQ9VK N1TO
VU2AKN Asoke K. Nandy, 14, Narasingha Avenue, Dum-Dum, Calcutta-74, INDIA
VU2ELJ Sabu Mathew, Kadavil Manakal, Kaippanchery, Sulthan Bathery, Wayanad, Kerala 673 592, INDIA
VU2EPRPrem, P.O.Box 26, Kerala 673 101, INDIA
VU2JF Jivanlal N. Adiecha, 304 Arti Apartment, Kashivishwanath Plot, Rajkot 360 001, INDIA
VU2JPS VK9NS
VU2OGO S. R. Santhosh, P.O.Box 55, Payyanur P.O., Kerala 670 307, INDIA
VU2RNC R.N. Sharma, 37A/76, Madhu Nagar, Agra 282 001, INDIA
VU2RTF R. R. Balasundharam, 10-A, Parameswaran Lay Out, Pappanaickenpalayam, Coimbatore 641 037, INDIA
VU2ZUS Md. Sofiullah, HMT/Computer, 138 (IND) Field Workshop, A.P.O. 56, INDIA
VU3RNC Sandhya Sharma, 37A/76, Madhu Nagar, Agra 282 001, INDIA
VU3RSB VK4AAR
VU3VLH OK1MM
VU3WIA D. S. Rajan, 282, Kongu Main Road, Tirupur 641 607, INDIA
W6XR N2AU
WP3A W4DN

FCC a coordinator?

The failure of a frequency coordination counsel has forced the FCC to decide a mutual interference problem between two repeaters. In a letter to New Jersey's West Morris Amateur Wireless Association, the regulatory agency says that the trustee of the club repeater must cease the adjacent channel interference to an established WR2M repeater operating on an adjacent channel pair about ten miles away.

The mutual interference situation seems to have come about as the result of the disappearance of frequency coordination in the New York City, New Jersey and Southern Connecticut area.

Unable to solve the mutual interference and no longer having the Tri State Amateur Repeater Council to intercede, William Lupo, WR2M, wrote to the FCC demanding relief. The FCC's answer was to warn the newer of the two machines, W2WMW, that its trustee would be in violation of Commission rules regarding malicious interference if it did not eliminate the disturbance to communications on the WR2M system.

But the FCC involvement did not end there. The FCC's Riley Hollingsworth also sent a letter to the mayor and city council of Hopatcong, New Jersey. In it, Hollingsworth explains what a repeater is and why both open and closed repeaters are permitted under FCC rules.

Hollingsworth has also questioned the legality of a fully automatic repeater to Internet Eyephone link operating on the W2WMW machine. He has asked the system license holder to supply detailed information regarding the connection and to show how it is kept under positive control.

The hills are alive with coordination

Almost three decades ago I helped to write the original coordination rules used by the old Southern California Repeater Association. That was back in the early 1970s and at that time we addressed a number of issues that are apropos even to this day.

Recently, someone posted a set of questions to the Repeater Owners Reflector that asked those of us on the remailer to judge the quality of coordination over the years. From my standpoint as both a former repeater owner, coordinator and observer of the times, here is the information that I provided. Remember: This is based on California terrain. Things may vary a bit where you live.

Remailer: Are machines [repeaters] subject to contour intervals or co-channel distance?

WA6ITF: Originally — no. In fact, SCRA was basically formed to protect the small number of systems that existed in the late 1960s (by comparison to today) from interfering with one another, and from other modes. But as time went on and more repeaters began seeking operating spectrum, the contours and separation guards were changed. While I am now out of the loop, and have been for over a decade, there is little contour protection possible with thousands of repeaters sharing the same spectrum in the same repeater subbands — providing the same service to the same user bases.

Today's answer appears to be user group separation by voluntary CTCSS coding. If growth patterns in repeater and user bases continues as they have, this coding and possible 'user assignment' to a given repeater will become mandatory. These are factors that no coordinator can really control.

Remailer: Are there any restrictions for drastic coverage improvements requiring re-coordination or loss of co-ordination? Are any areas subjected to construction permits or modification applications?

WA6ITF: No. If you live within the contours of your coordination, it is good for as long as you own/operate your repeater. BUT coordinations are not transferable with repeater hardware. If you lose interest and take your repeater off the air, the frequencies revert to the coordinators pool of available channels for reassignment. If you decide to make major changes — such as moving mountaintops or major power increase, then you must notify the coordinator in advance. When we were SCRA we required 90 day pre-notification. I don't know what it is these days.

Remailer: Are all repeaters treated as the same coverage, or are there "classes" of coverage or other means of classification?

WA6ITF: We have a very, very complex system based on both technology and politics. We have four classes politically (open, closed, private and 'individually and privately owned and operated Amateur Radio remote base station') and four technological basis (local, wide, super-wide plus a pair of non- protected testing channels). Each repeater fits into one of each.

Remailer: How many of you are tolerating interference from nearby repeaters that were placed on the air 10+ years after your machine (club, group, etc.), much against your technical advice at the time?

WA6ITF: In our case it has been as much as 30 years that some machines have been tolerating interference from newer machines. It's a part of the landscape that comes with operating a repeater in the most heavily RF saturated Amateur Radio corridor in the world.

The answer is simple. He who was there first has won the right of being there first and receives maximum protection. He who comes along later is legally bound to protect the rights of those occupying the channels before. If a newcomer causes interference to an established repeater it is the legal responsibility of the owner of the new repeater to mitigate the interference, regardless of the cost, or the hardship to himself, or to his user base.

Remailer: Any cases where interference problems were resolved and the resolutions were satisfactory to all involved?

WA6ITF: In this day and age where there are lots of new amateurs wanting repeaters and no spectrum on which to put them (this area is completely filled on every band, on channel, five and six layers deep, since the mid 1980's). The only thing a coordinator in this region can do is to coordinate for theoretical minimum interference, taking into account that in more and more cases you have new repeater applications from those wanting coverage of the same geographic area as one or more existing systems on a band or frequency pair that may already have five or six repeaters doing that, using CTCSS to separate user groups.

Final comment

There seems to be a misconception that repeater coordinators and spectrum managers are also spectrum policemen. We, they, are not. They are merely advisors whose decisions are based on an understanding of both radio relay technology and the politics of a given region.

Twenty-five to thirty years ago, voluntary repeater coordination was 100% technology based because the repeater owners of the day were almost 100% technocrats. Today, most repeater owners are people who go to a local amateur supply store, buy a pre-packaged repeater and antennas; rent a mountain top site and hire a commercial vendor to put it together and put it on the air. They have no concept of coordination and care little. It's only when a situation, akin to a lawyer from an existing group serving them with a law suit for massive interference to existing channel traffic, that they pick up their heads and come crying to the local coordinators for help. Then it's as a demand rather than a request.

Remember that coordinators are VOLUNTEERS! Unpaid volunteers! Eventually they tire and go away. Look at the NYC-NJ-CT area, where everyone has lost interest in coordination. The entire repeater community walked away from the Tri State Amateur Repeater Council. Now, as noted in the WR2M vs. W2WMW story reported on earlier — beginning to reign..

For years, coordinators asked for acknowledgment of their services from the FCC and/or other government agency. To date this has not happened. Mainly because the coordinators blew the one opportunity handed them four years ago at the BOM in St. Charles, MO. The FCC said do it now — the coordinators took over a year to get their act together, during that year the window closed, never, ever to open again.

The bottom line — coordination is nothing but a 'recommendation.' There is nothing binding and no law to enforce it other than the laws of mankind regarding good will toward others. That law seems to be slowly fading in favor of greed and avarice — even in the world of Amateur Radio.

Repeater jammer websites targeted

The nation's repeater owner operators have targeted a pair of Internet Service Providers who are hosting web sites that appear to promote jamming of repeaters and harassment of law abiding amateurs. The repeater owners want the sites off the web now.

The grass roots protest campaign began last week after information regarding the two URLs was posted to the Repeater Owners reflector. One site is located on the East coast. The other appears to be hosted in the San Francisco Bay area. Both seem to carry the message that jamming is a constitutionally protected freedom of expression. And in both cases the site sponsors have gone to great length to amass and publish information on those amateurs who are dedicated to tracking down that area's repeater jammers and getting those operators taken off the air.

The nation's repeater owners look at these web sites and the activity they promote as an organized threat to Amateur Radio relay communications. They want the host Internet Service Providers to remove these sites from their servers. Copies of the protest letters are also being sent to Riley Hollingsworth, K4ZDH, at the FCC's Compliance and Information division.

Yaesu does it again

In their advertisements, Yaesu constantly says "YAESU HAS DONE IT AGAIN!" And this time it's no advertising hype as the big "Y" announces the world's smallest (at this time) tri-band handheld transceiver on earth. It's their "new" VX-5R and boy is it a loaded radio.

According to my friends over at Yaesu, the VX-5R is a miniature tri band FM transceiver with extensive receive frequency coverage, providing leading-edge features for 6-meter, 2-meter and 70-centimeter amateur communications along with unmatched monitoring capability. Besides the 50, 144, and 430 MHz transmit operation, the VX-5R provides receive coverage of the AM and FM broadcast bands, HF short-wave bands up to 16 MHz, VHF and UHF TV bands, the VHF AM aircraft band, and a wide range of commercial and public safety frequencies. With its unique optional Barometer pressure sensor unit installed, the VX5 even provides readout of barometric pressure and altitude while mountain climbing and hiking.

The transmitter section provides five watts of clean power output on the 50 MHz and 144 MHz bands with the supplied FNB-58LI high- capacity Lithium-Ion battery pack, 7.2V @ 1100 mAh and 4.5 watts output on 430 MHz. When 13.8 V DC power is supplied from external source, power output is 5 watts on all bands.

VX5 Specifications:

Frequency Coverage
Wide Band Receive
RX: 0.5-15.995 MHz, 48-728.990 MHz
800-998.990 MHz (Cellular Blocked)
TX: 50-54 MHz, 144-148 MHz, 430-450 MHz
5 W Power Output (430MHz: 4.5 W)
220 Memory Channels plus Home Channels
Ten Auto-Scan Weather Channels (North American Version) MIL-STD 810 Rating
Aluminum Diecast Case
AM Aircraft Receive
AM Broadcast
FM Broadcast

CTCSS Encode/Decode, Digital Coded Squelch (DCS) Backlit Keypad
Auto Range Transponder System (ARTS
8 Character Alpha Numeric Display
Time Out Timer (TOT)
Dual Watch
Dot Matrix LCD
Smart Search
Spectrum Analyzer
Temperature Display Read-Out
Barometric Pressure Sensor (Optional SU-1 Unit) Automatic Power-Off (APO)
ADMS-1E Windows PC Programmable (Optional) High-Capacity Lithium-Ion Battery 7.2V @ 1100mAh (Supplied) Super Thin Profile/Lightweight Design
16-Digit 9-Memory DTMF Autodialer
Busy Channel Lock Out (BCLO)
Innovative Multi-Section Antenna

UK gets fill-in repeaters

Ever hear of a "Fill-In Repeater"? Well, amateurs in Great Britain now have them and they say that they are working exactly as they had hoped.

As its name suggests, a Fill-In Repeater is a new type of repeater for filling in the gaps between areas presently served. Under recently enacted U-K rules, these machines can be on either the 144 or 430 MHz bands. They are low power units with carefully tailored service areas.

GB3KY is the first fill-in Repeater to become operational. It's a 2-meter unit at Kings Lynn,running 10 watts and a highly- directional antenna. It is on 145.750 MHz and reports should go to its trustee, G1HYU.

From the email box

Subj: The Kenwood VC-H1

From: Fred N2FOZ

Have been meaning to drop you a line regarding your fine column in ***Worldradio*** for some time. I really enjoy reading it, and always seem to learn something, too. Your discussion a few months back regarding the VHF situation here in the NY/NJ area since TSARC's demise was right on target, as was your recent article on the "balkanization" of Amateur Radio by license type and class.

Your mention of Kenwood's new VC-H1 SSTV unit prompted me to write. I wasn't able to visit Dayton last year, but shortly thereafter I was the proud owner of a pair of VC-H1's. I echo your comments about this device's public service possibilities. Being able to transmit pictures back from the field to our 'customers' in the various served agencies and organizations has tremendous potential. As a matter of fact, I'm planning in the near future to approach the local NWS here in the NJ/NYC area to see if they'd find pictures of potential severe weather useful to them.

The only thing that I condsider a bit of a glitch with the VC-H1 is its default back to 36-second Robot Color mode after turning it off. This mode really doesn't have sufficient resolution for the type of work I'm envisioning. Luckily, it's fairly simple to have a computer-based home station (or one at a served agency) send the proper VIS tones for the high-resolution Scottie or Martin 110-second modes, which automatically switches over the VC-H1. Of course, if one has a laptop hooked up to the unit in the field that'd be unneccessary, since the modes can then be changed manually.

Incidentally, there's an excellent PC-based SSTV program that I'm using as a complement to these units. It's called EZSSTV by Pasokon (I'm currently using the freeware Lite version that's available over the Internet). It uses a standard HamComm-type interface on a serial port of any 486 or better PC, and has a feature that I've never seen on any other program. It will function as a simplex SSTV repeater! Pretty neat function. And sadly, a necessary one in this area, it seems. Even with all the repeaters in northern NJ/NYC (2M and 440 are filled solid), trying to find one that'll tolerate public-service-oriented SSTV has been difficult, to say the least.

Thanks again for a fine column, Bill, and vy 73... de Fred, N2FOZ

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Jerry Wellman, W7SAR

Staging area operations

I've mentioned many times over the years that response to an emergency event can tolerate few delays. When help is needed, it's needed now. An on-call search manager keeps the 'time to respond' (TTR) at the top of his or her readiness list. What if the response is 'down south"? What resources can be quickly deployed for the best TTR?

Usually in a city or county, the TTR is not a critical factor — but when it comes into play the incident commander (IC) sets up a staging area, and that's what I'm going to talk about this month. What is a staging area and why have one?

We might first consider a fire scene. The IC wants enough resources on hand to battle the blaze and also wants to rotate crews for safety considerations. If the blaze is large or complex, extra units will be called and held in a staging area. Perhaps the event is a search for a missing aircraft. An IC might need to cover a significant amount of terrain and will need many search craft. It's efficient to launch aircraft and have others ready to launch from a central point as leads develop during the search. The IC might need specialty craft such as a helicopter ready to respond from a staging area.

What about communications support? Because schedules, fatigue, equipment limits, and other factors influence how long an operator can remain on assignment, extra people are often needed. These extras might be asked to respond and wait at a staging area.

A staging area serves many functions, the most important being a place for resources to gather and organize for immediate deployment. A staging area might be used for temporary feeding and housing, for briefings, for repairs and support, or to contain large numbers of unexpected convergent volunteers. What it means for the IC is a body of resources is available that can move immediately; they're ready, they're equipped; they're close at hand.

Staging area resources are also 'counted.' They're a known quantity. You might argue that you could sit comfortably at home and head in to help if called. But you are not a 'known quantity.' You might have car trouble getting to the scene, you might have the wrong equipment, your phone might be busy if the call comes. The IC is busy with the event operations and dealing with the unexpected — knowing he or she has resources immediately on hand to deal with the unexpected makes the IC's life a little easier.

An Emergency Life Cycle

When the call for help is received, an emergency life cycle (ELC) starts. The first action phase is an 'initial response.' It might be an immediate search by a deputy sheriff, an electronic scan by a direction finding team, or a drive through by a SAR team. Often the initial response resolves the emergency and the ELC ends.

While the initial response is underway, the responsible agency is gearing up for an extended ELC which includes additional people, planning, and support. If the initial response fails to resolve the incident, the IC moves into the "first operational period." It is here the IC sizes up the event, calls additional resources, develops an incident action plan (IAP) and essentially formalizes the incident response. As the ELC continues, additional operational periods are planned and executed until the event is resolved (the victim is found) or suspended.

Most ELCs end with the initial response phase. A deputy finds the walk-away from the nursing home while en route to the scene. An overdue aircraft is found during a ramp check and the flight plan was simply not closed. The responding fire engine discovers a smoky grill in a back yard. An overdue skier is found with a broken binding by the ski patrol during a hasty search.

The responsible agency, however, is considering plans should the initial response not quickly resolve the incident. One portion of those plans is a forward response base which might include a staging area. A battalion chief monitoring a fire response is thinking, "What if this goes multi-alarm? Where do we pull water from and where do we stage additional equipment?"

A staging area is needed when potential resource needs exist and exceed immediate demands. Let's explore that statement. The staging area is where you put your "extra" resources until they're deployed — a reservoir, if you will, of talent. Perhaps you're looking for a lost hiker. You want to populate a search area around the clock and have fresh search teams enter a search area as a 'tired' resource is pulled out. It's not good search management to send 'everyone and everything' into an area, not find the subject, and then take an eight-hour sleep break.

The Unexpected

What happens if the missing person is unconscious and awakens while your search is "resting"? If all your fire crews are exhausted, do you tell the forest fire to pause while your crews sleep? The staging area, then, allows for efficient crew rotation on a timely basis. Another benefit is when the unexpected happens. Let's say a roof collapses on a fire scene. It's a life-and-death issue if an engine company responds from across town or from the staging area. I recall a search for a missing balloonist where an aircraft from a staging area was able to check out a lead, find the downed balloon, and guide a ground team into the area just before a storm front brought heavy snow to the area. Had the aircraft not been immediately available, the rescue would not have happened.

The downside of a staging area can be viewed from the responder perspective and from the IC perspective. If a large number of volunteers arrive, the area resources can be overwhelmed and the resulting confusion can cause 'lost' resources. This is the logistics nightmare any staging area manager dreads — keeping track of available resources. When people just show up on their own, the IC doesn't want them simply turned away, but it does pose

problems with how to use them.

From the responder perspective, you don't want to kick your heels for long periods of time waiting for an assignment. You're there to get involved, to help, to respond. You don't want to just sit and wait. Sometimes the IC requests extra teams 'just in case.' Sometimes the IC asks for a 10-member team and the 100-member team responds in full force.

Dealing with Frustration

If you respond only to wait too many times, you look for other ways to volunteer your time where you can get involved. It's frustrating, but less so when you understand the incident dynamics. You might use these times to help the command staff learn incident management as you discuss your "waiting" during the critique. The IC might not have known how many resources were available or that on the past three events, your team was on standby and you really want to get into the field next time. When you all discuss the issues during a critique, you all learn.

The worst staging area scenario is when hundreds (or thousands) of willing volunteers show up to help search for lost 'Timmy.' They're untrained, they're ill-equipped, they're out of shape, but they're there and willing. From an elected official perspective, they're also voters and you don't want to make them angry.

Using vast numbers is a future topic for a search manager course, but what interests us is how your trained, equipped, and requested team avoids getting lost should you find yourselves in the midst of a sea of volunteers. When you arrive, let the staging area manager know you were specifically requested and that you have certain skills. The manager might have been alerted to divert you to a briefing area for immediate dispatch — but may not know how to recognize your team. So step one is: communicate.

You might also let the staging area manager know where your team will be (or what frequency you're on) so delays can be avoided when you are deployed. Sometimes the IC or operations chief will call the staging area manager and simply request a particular specialty team. If you're a team of that specialty, being near the staging area manager (or where he or she can find you) means you get the call.

Stay Together

My second point is that you stay together as a team. It's easy to get lost or separated when you are called so you need to be together and ready to respond. You'll also want to keep an eye on your gear. I've heard tales of well-meaning (but unequipped) volunteers "borrowing" gear so they'll be used on a search.

Another suggestion to avoid being put on hold or lost in the crowd is to ask for a specific assignment and deployment time. As you are called out, it's good to simply ask "What will our assignment be?" and "What time do you expect to get us into the field?" This gives you some specific guidance and forces the command staff (the IC and the planning section) to write you into an operational plan. You might not be deployed on time, but you're part of a plan. You also get a sense of the urgency with which your team is needed and how quickly you need to be on scene.

Finally, prepare to wait. Bring along a book to read or spend the time getting your gear in better shape. Occupy your waiting time with something productive — or simply take a nap and prepare for a strenuous assignment. Just be ready to roll the instant the assignment comes. That's why you're in a staging area!

It's difficult for me to hear something happening on a search channel and resist the urge to pack up and head to the scene. I have to remember that by doing that, I put someone in an awkward position to either send me home or find something for me to do, or worst case, displace another volunteer who was requested.

Keep in mind that if you are called to coordinate a particular resource during an emergency or public service event, you should consider a staging area. It keeps resources ready to respond and if planned properly, keeps people out of the critical operations area. You don't want to create spectators if at all possible, so your staging area is selected because it relieves operational congestion, affords easy access to roads, trails, and operational access points. You will also need to ensure there is space for teams to get gear ready and perhaps repaired.

A staging area can be used to feed volunteers and as a place for general briefings — both of which cause some interference to an ongoing operation if you do everything within close proximity. This is also the place you direct the curious so you can determine what they can do to help the event and at least keep them out of harm's way.

As you get ready for those summer public service events, include a staging area in your planning and practice how to select and use such areas. Appoint someone as a staging area manager and start the learning process during practice exercises so you're ready when the callout comes. 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

Jim Wades, WB8SIW

Emergency Preparedness

Recently, much press has been given to the supposed 'demise' of Amateur Radio as a disaster communications resource due to the deployment of such systems as cellular telephones, the Internet, and the Iridium satellite system. Often, this argument is based on the idea that commercial or military communications systems are capable of much faster data rates and have higher circuit capacity than Amateur Radio networks. As a matter of fact, in a recent editorial in a major national Amateur Radio magazine the writer attempted to compare CW circuits with a digital communications system being deployed by the U.S. Army Signal Corps (no doubt costing millions of dollars). His argument may be paraphrased as follows: 'Ham Radio is doomed to obsolescence because we can't match the data rates achieved in commercial and military systems.'

While the prophets of doom are prostrate at the altar, worshipping the god 'baud,' or worse, making maximum use of the Internet's sizable circuit capacity by playing interactive electronic games, let's consider just one of many characteristics, which will continue to render Amateur Radio of value in the future:

Training

In recent years, I have had the responsibility of supervising disaster communications during a number of national-level operations for a well- known relief agency. Interestingly, I have yet to see one or two, let alone hundreds of every-day citizens report to our headquarters offering to provide disaster communications services with their cellular telephones and PCs. Why? They don't know how (not to mention the fact that the infrastructure upon which these devices rely, often fails during emergencies).

While working with numerous Emergency Management Agencies, I have yet to see a local Director recruit citizens with personal wireless devices for emergency communications. Why? They're not trained! They don't understand how the agency works, how to interface with public safety or relief personnel, how to process and deliver message traffic, nor how to improvise when their beloved wireless device fails (i.e. the batteries die or the circuit crashes).

While there is no doubt that it is necessary for Amateur Radio to integrate newer technologies into all of its public service activities in order to remain viable, the most valuable asset we have remains that of the trained operator. This means:

· Understanding the concepts of message prioritization, how to use standard prowords and prosigns, net discipline, proper message transmission techniques (for accuracy).

· The ability to conduct effective disaster communications planning and emergency communications resource allocation.

· Having access to redundant communications networks and emergency power supply capabilities.

· Knowing how to improvise in an emergency (For example, how to construct an emergency antenna, or perhaps rig two lantern batteries for a temporary source of power, or how to debug unfamiliar software).

Amateur Radio continues to offer public and private relief agencies access to a wide range of communications technologies and skilled personnel in a highly cost-effective manner (namely 'free'). The fact that Amateur Radio operators are organized through such programs as ARES and RACES insures that our disaster communications resources are allocated in a far more efficient manner than typically occurs through the random application of public communications facilities.

While participating in ARES and RACES organizations is valuable for the knowledge of emergency planning and deployment it imparts, traffic nets offer a different type of training geared to the art of 'communicating.' Unfortunately, there seems to be a dichotomy between the NTS and ARES programs in many parts of the Country. This is to the detriment of Amateur Radio. The traffic handler needs to understand how public safety and relief agencies operate and how to prepare for an emergency. Likewise, many ARES programs seem to be in need of the basic skills taken for granted by the experienced traffic handler. ARES leadership should encourage their members to become involved in the NTS, and more traffic handlers should join their local ARES program (or an equivalent organization).

Health and Welfare Traffic

While the need for originating health and welfare messages in time of emergency has diminished in recent years, situations still arise where it is necessary in the absence of 'traditional' communications infrastructure. Problems arise when inquires arrive from outside the disaster area and delivery is attempted. Large disasters displace individuals. Landmarks and street signs disappear. Local phone service is often

inoperative and not enough personnel are available to track down addressees. In addition, each message that arrives as a disaster welfare inquiry requires a response, thereby doubling demands on already limited communications circuit capacity. As a result, little of this traffic is ever delivered and even fewer timely replies are originated.

For traffic handlers and ARES programs, a simple rule to remember is that 'it is better to give than to receive.' Have a plan in place for originating health and welfare messages on behalf of displaced individuals (in shelters and otherwise). A convenient tool for originating such messages is ARRL Form FSD-244 entitled Disaster Welfare Message Form. Quantities of these forms can be distributed to shelter residents, each having specific identical ARL texts checked-off (e.g. 'ARL One ARL Six'). Through the use of 'book traffic' techniques, large quantities of this traffic can be originated quickly delivered outside the disaster area via local or section NTS nets, or via special point-to-point circuits using packet radio or a simple telephone and fax machine. For example, volunteers at a nearby Red Cross Chapter in an unaffected area could place phone calls to deliver traffic received from the disaster area via a temporary point-to-point circuit, resulting in timely and efficient delivery of health and welfare traffic.

Another important rule to remember about handling health and welfare traffic in an emergency is this: Do so only with the consent of the originating party. Many relief agencies, such as the American Red Cross, have policies in place protecting the confidentiality of shelter residents. One may also wish to consider the use of such modes as packet radio, CW and other methods not easily intercepted by the general public.

Winter Storm Emergency Activation

During the New Year's Weekend Winter Storm, which struck much of the Midwest, NTS members in Michigan provided a service to the National Weather Service, which may be worth imitating in other areas. Under the auspices of the Michigan Net (QMN), NTS and ARES members made snowfall observations every three hours throughout the storm's duration and transmitted their reports to the NWS using the standard ARRL radiogram format. The radiogram format offers some significant advantages for organized reporting of weather conditions since the format is already structured to include such data as:

- Station of Origin
- Place of Origin
- Date and Time of origin

Reports were transmitted on the QMN frequency of 3663 kHz (CW) and the Michigan ARPSC frequency of 3932 kHz (SSB). Alternate frequencies on the 40-meter band were used during the afternoon hours when necessary. Some participants in SE Michigan used VHF packet radio as well.

The use of NTS facilities provided the NWS with data from many rural areas, which lacked sufficient amateur population to support a fully staffed two meter Skywarn net typical of more urban locations. Likewise, many smaller ARES programs took advantage of the 'ready-made' infrastructure provided by Section level NTS Nets to transmit regular reports. This type of activity is a fine example of how quality public service communications can be accomplished when CW, SSB, and digital interests work together.

The Michigan Net has had Standard Operating Procedures in place to provide the NWS with both routine and emergency weather data for several years. The data collected through this system is used to supplement existing precipitation data, which is often obtained through automated observation systems. Many of these systems tend to under-report snowfall or are too widely dispersed to provide a complete "picture" of local variations in precipitation. If you are on the Internet, and wish to learn more about the QMN-NWS program, check out the QMN Web Page at http://qrp.cc.nd.edu/qmn/.

A final thought

Consider this: mere possession of two-way radio capability is no longer enough to make Amateur Radio unique nor a valuable national resource. We must be trained and prepared. One can not obtain this training by sitting at home and rag-chewing or through participation in DX contests (all perfectly fun and honorable activities). If you wish to make an investment in the future of Amateur Radio, join your local ARES or RACES program, check-in to an NTS Net and originate some meaningful traffic, and be prepared to help in time of emergency. When you do help, be sure to let the media, your elected representatives, and the public know!

Need a county? Try a contest!

In the March 1999 column I waxed eloquent about the merits of hunting counties in the various state QSO parties. Many states have a weekend contest giving all of us the opportunity to contact their elusive counties. I gave details about the Virginia QSO Party, but as it turns out there was also an Ohio and Alaska QSO party that same weekend. Hopefully, you contacted a lot of new Virginia, Ohio and Alaskan counties. Speaking of Alaskan counties, the exchange in the contest for the Alaskans was their city, rather than their county. That's because they do not have counties and there's a lot of confusion about what is considered a county in Alaska. But, that's another story and I've already written extensively on Alaskan boroughs, census areas and judicial districts. Incidentally, *CQ* Magazine counts the four Alaskan judicial districts for their USA Counties Award (USA-CA).

MARAC CW and SSB Contests

The Mobile Amateur Radio Awards Club (MARAC) is conducting their 33rd annual CW contest and concurrently their 28th annual SSB contest the same weekend in May. In previous years, the CW and SSB contests were on different weekends; however MARAC decided to change all that and conduct both contests simultaneously. The contest runs from 0000Z Saturday 01 May to 2400Z Sunday 02 May 1999. Mobile and Fixed operation from every county in the U.S. is welcomed and operation from less-active counties is encouraged. What that means is all of our readers should jump in the contest and give out a few contacts from your county. Who knows, you might actually give someone a new multiplier for the contest or give them an all time new county for their award pursuits.

The rules are fixed stations may be worked only once on each band, but U.S. mobiles (identified by signing /M after call) may be worked each time they change counties or band. When operating on county lines, a contact with a mobile counts as one QSO, but the receiving station may count each county as a separate multiplier. Multi-transmitter operations are permitted; however, only single transmitter entries are eligible for an award. In other words, if you're in the contest to win an award, use a single transmitter.

The QSO exchange in the contest includes signal report, county, and state for U.S. stations; signal report, province (Canada) or country for other stations. Count one QSO point for contact with fixed NA stations, 15 QSO points for each U. S. mobile contact and five QSO points for NA station contacts with DX. The final score is the total QSO points times the total number of counties. CW and SSB contests are scored separately for total score.

Mobile operators changing states during the contest should calculate their scores for each state certificate and total score for the overall plaque. Total overall score must not count a county as a multiplier more than once regardless of the county or band.

For those of you planning to use contacts from the County Hunter's Net frequencies, guess again! Controlled net contacts are invalid for contest purposes, i.e. you can't use those CH net contacts. (Makes you wonder if contacts on the net frequencies are valid when the net is in open session, you know, without control??? I guess I have a warped mind to think of these angles!) So, don't use the net frequencies, instead use the following frequencies: on CW; 3,575. 7.040, 14.050, 21.050, 28.050 KHz and on SSB; 3880, 7240, 14270, 21340, 28340 KHz. Fixed stations should operate above these suggested frequencies and mobiles should operate below these frequencies.

MARAC will give contest certificates to winning stations in the following categories: First place fixed station in each State, Province, and Country; First place mobile operator in each State. MARAC will also award contest plaques to the first and second place mobile operator in the U.S.; first and second place U.S. fixed station; first place Canadian station; and first place DX station. For contest purposes, DX stations are any station operating in a country other than the U.S., Canada, and Mexico. Send your completed logs and summary sheets by 04 June 1999 to Norm Beavers, W3DYA, 3320 McMillan Dr, Tyler, TX 75701-8239 for the CW contest and Alan Fischer, K8CW, 259 W. Cook Rd, Mansfield, OH 44907-2497 for the SSB contest.

Now it's time for me to subject you to my opinion. I don't understand why MARAC decided to conduct the CW and SSB contests simultaneously unless they offer three classes of entries: CW only, SSB only and mixed mode. Having the contests on the same weekend without the mixed mode entry and having logs sent to two different locations makes no sense to me...but they didn't ask for my opinion and you're just stuck reading it.

Texas QSO Party

In March I wrote about the new Worked All Texas Counties Award. Well, here's a great opportunity to make contacts to help you achieve that award. The Texas DX Society (TDXS) is sponsoring the Texas QSO Party only a couple of weeks after the MARAC County contest. The TDXS lists two purposes for their contest; to provide competition for Amateur Radio operators by contacting as many Texas stations in as many different Texas counties as possible and to provide county hunters the opportunity to contact rare Texas counties during the published contest time. TDXS does a great job

County Hunter

drumming up activity from the many Texas counties. Last year there were over 25 mobiles running counties for the contest. Plan on activity from at least 200 of the 254 counties over the contest period.

The contest starts at 1400Z on 22 May and ends at 2200Z 23 May 1999 with no off times required; use of spotting nets, repeaters, packet nodes, simplex operation, telephone or any other means is permissible for multi-op and assisted entries; operation on all bands and modes is permitted, except on 30, 17 and 12 Meters; stations may be worked once per band per mode; however, Texas mobiles may be worked once per band/mode from each county and Texas mobiles may work stations once per band/mode from each county; and separate logs may be submitted for each mode and Texas mobiles can use separate logs per county.

The Texas DX Society has a category for everyone, including single transmitter QRP (less than 10 watts phone and less than 5 watts CW and other modes), multi transmitter QRP (less than 10 watts phone and less than 5 watts CW and any other mode), single operator, single operator assisted, multi-transmitter multi-operator, multi-operator, single transmitter, Texas mobile single operator (includes assisted), Novice/Tech, Texas mobile multi-operator, and club category.

Scoring for Texas stations includes QSO points times number of multipliers. For QSO points, count two points per SSB QSO and three points for CW QSOs. Multipliers include states contacted, plus the number of Texas counties contacted, plus each Canadian province contacted (13 total) plus each DXCC country contacted excluding USA, Canada, Alaska and Hawaii. Scoring for non-Texas stations includes two points for SSB and three points for CW contacts with Texas stations times the number of Texas counties contacted (254 possible). Scoring also includes bonus points for Texas, non-Texas stations and Texas mobiles (100 points for every ten Texas mobiles worked per band per mode), and also for Texas mobiles (5000 points for every five counties operated from).

Look for Texas QSO Party activity on the following suggested frequencies: CW — 30 kHz up; Novice/Tech 30 KHz up, SSB — 25 kHz up in General segments and 28.300-28.500 MHz, VHF — 50.200 MHz, 144.200 MHz, 46.55 MHz. Contact exchange includes RS/T, State, Country, Canadian Province or DX country for non-Texas stations and RS/T and county for Texas stations.

All logs and summary sheets (dupe sheets are required for all stations submitting more than 200 contacts) must be submitted by 30 June 1999 by mail, disk or e-mail to TDXS, POB 540291, Houston, Texas 77254 or e-mail: W5HNS@aol.com. If you'd like a list of planned mobile activity, contact TDXS by mail or e-mail.

Work 'Em All Club

Congratulations to the latest recipients of the USA-CA award for contacting all 3076 counties:

969 Richard Neumann, KC9EU 02-24-99
968 Orville Duecker, NKØN 01-09-99

C'ya in the contests!

Hopefully, you'll get some spare time to chase counties in these contests. If you'd like me write about a specific topic related to county hunting or if you have any county hunting questions, please contact me. — *Ace Jansen, N3AHA, 42857 Hollywood Park Places, Ashburn, VA 20147; email: jansens@tidalwave.net.*

Terry Douds, WB8CKI

More birds going up!

Hello everyone! Spring is here, and, for me, that means it's almost time for Dayton! As usual, May brings my annual pilgrimage to the southwest (90 minutes) to Hara Arena, where you can see anything and everything that is Amateur Radio. After stopping by the ***Worldradio*** booth to get your latest copy of the magazine, and the obligatory trinkets/books/etc. (plus, of course, saying hello to Armond and Rick), stop by the AMSAT booth in the old hall and check out the latest in information, books, software, and the 1999 edition of various T-shirts & hats! I should be there most of the weekend (as I always am), and I look forward to meeting many of you as you pass by.

Now, on to the important stuff — the latest in the satellite world. More birds keep going up! The most recent event was the launch and acquisition of SUNSAT, a new South African amateur satellite. SunSat, which stands for Stellenbosch University Satellite, takes its name from the South African university whose students constructed the payload. The University of Stellenbosch is not far from the southern tip of the African continent just east of Cape Town.

The SunSat package includes digital store-and-forward capability and a voice 'parrot' repeater system that will be used primarily for educational demonstrations. The satellite has two VHF and two UHF transmit-receive systems. Current downlink activity from SunSat is on 436.250 MHz, using a FSK Bell 202 format at 1200 baud. A complete description of SunSat (along with photographs) is available in the September/October 1998 issue of *The AMSAT Journal*.

The SunSat command team, headed by Garth Milne, ZR1AFH, reported telemetry signals were received from the new satellite during the very first orbit. "We uplinked commands to Sunsat and were overjoyed to hear UHF telemetry start at 1200 baud, just as we wished," said ZR1AFH. However, after 12 hours in orbit, uplinking would become much more difficult, mainly because the spacecraft was still tumbling. Cliff Suttschardt, K7RR, reported that after making many changes, including increasing power and installing new antennas on the ground, the Vandenberg command team received loud and clear return signals from the bird. Ground control at Stellenbosch University is now currently busy with the commissioning of the satellite, including deployment of the gravity boom to help stabilize the bird. At the time of this writing, the command team is planning general Amateur Radio service by the end of March, so hopefully it will be available when you read this! For more information on SunSat, visit the following URL: http://sunsat.ee.sun.ac.za.

In my last column I mentioned PanSat, the Petite Amateur Navy Satellite. This bird, developed by the Naval Postgraduate School and launched from the shuttle Discovery last October, appears alive and well after several months in space. "It appears to be operating well," according to PanSat team member Dan Sakoda, KD6DRA. Sakoda did express some concern about battery life, saying that the temperatures are a bit lower than they expected, and that they need to really baby the batteries if they want to have a long satellite life.

The satellite, also known as PO-34, carries a spread-spectrum communication package fabricated by student officers and faculty members at the Naval Postgraduate School. The spacecraft is set to provide store-and-forward digital packet communication using direct sequence spread-spectrum modulation. Amateur Radio operators will soon be able to utilize PANSAT via a bulletin-board type user interface.

AMSAT-NA Vice President for Educational Liaison Steve Bible, N7HPR, recently said, "It's been a busy year so far in the Amateur Satellite Service and I've updated the satellite information web pages on the AMSAT-NA web site." Check out Steve's updates at the following URL: http://www.amsat.org/amsat/sats/n7hpr/satsum.html. He has listings for all current operating Amateur Satellites, so it's a great resource for you who want to know more.

I was asked by my editor, Rick McCusker, WF6O, to discuss the Y2K phenomenon as it relates to the Amateur Satellite community. Obviously, any satellite tracking software utilizes date information to determine the orbital path, so it would be a logical question to ask if there will be any problems. Orbits from 1900 certainly would not be the ones you will want in 2000! I cannot answer concerning software other than that available through AMSAT, but I know that all software currently being offered by AMSAT is Y2K compatible. In this regard, N4HY's venerable program, *Quiktrak*, was deleted from the offerings before Dayton 1998! Many people on the AMSAT-BB Internet mailing list have discussed this problem, and a couple of them were going to try and fix it as well, as N4HY felt it wasn't worth the effort considering the age of the software (and the non-Windows application as well).

When discussing the AMSAT-BB I have been asked if there is any way to look at old information, threads, etc., on an archive somewhere. The question was asked on the BB recently, and Paul Williamson, KB5MU, internet guru for AMSAT, said, "Yes, back to July 1998, in daily digest form, at: ftp://ftp.

amsat.org/archive/amsat-bb-digest/."

Another point of recent excitement on the birds has been the sending of SSTV pictures to earth via Mir. The Cosmonauts have placed a camera out the window of the command module, and have been sending SSTV down to anxious viewers. Many have been using *ChromaPix* or *W95SSTV*, two shareware programs available around the Internet. These programs utilize a SoundBlaster type sound card to take the audio from the rig and convert it into images. From the few pictures I have seen uploaded by various recipients, it looks like a lot of fun! It has also put some other people's creative juices into high gear. Due to the successes here, some others have been attempting to do a similar thing utilizing FO-20, and sending their own pictures thru the bird. This was a popular activity on certain weekends on AO-13 before it burnt up, and with the availability of easier decoding of SSTV now, I'm sure it will return stronger than ever.

Unfortunately, even with this new excitement for the amateur community, it seems that the Mir space station might be discarded as early as August because investors who were supposedly planning to fund it have backed out. The RKK Energia company, which built and runs the 13-year old station, said in December it had found a private sponsor to keep Mir in orbit for another three years, but apparently the problems were never worked out. Mir's estimated budget is $250 million a year.

This means that the newest crew members, Viktor Afanasyev, Jean-Pierre Heignere and Ivan Bella will probably be the last Cosmonauts/Astronauts aboard the space station, which has seen more than 100 men and women living in space.

Dr. Bernard Pidoux, F6BVP, President of AMSAT-France announced recently that French astronaut Jean-Pierre Heignere will spend six months aboard Mir and is scheduled to perform two EVAs. One of the planned EVAs will give him the opportunity to hand launch yet another Sputnik nano-satellite built by AMSAT-France. This small satellite, the third in the series, will be called Sputnik 19. The 'launch' date is not known, but stay tuned to the AMSAT web site or any of the amateur news services for further details.

That's about it for this installment! We are all waiting for positive words from our German counterparts about launch opportunities for Phase 3D, and you'll learn about them as soon as they are announced in ***Worldradio.*** That information will get in regardless of where we are in my quarterly article schedule. So keep your eyes to the sky, and I hope to work you all soon on the birds! — *Terry Doudes, WB8CKI, can be reached at: 344 E. Fifth Ave., Lancaster, OH 43130 or via email at: wb8cki@amsat.org.*

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.*

Hello, Mom

Connie Bowen, WAØMYF, of Omaha handled a huge share of the phone patches which came out of Viet-Nam during the U.S. involvement. As a member of Navy MARS (Military Affiliate Radio System) she ran one call after another between servicement and stateside families.

"But this one call I could never forget," she comments. "A favorite hangout of our men was bombed and pretty much demolished. Death messages were sent in the formal way to the relatives of those killed in the blast. However, a couple of days later two Marines were found still alive in the rubble.

"The next day they were carried to the MARS station to run phone patches home in the hope of beating the death messages. The first call went through well as the family had not received the sad message. He told them he was OK and to remember the date and time they were speaking in case the formal message arrived.

"The second call was more difficult. As usual, I placed the call telling the operator to say it was from the serviceman. The first time the mother answered the phone I said I had her son on the radio and he would like to talk to her. She just hung up immediately.

"The next time I asked the Marine to holler 'Hello, Mom' when she answered. She couldn't recognize his voice and hung up crying. The third time a minister answered and asked us to please not call again as they were having a bad enough time without prank calls. After pleading with him to hang on and listen to what we had to say, he got the mother back on the phone while the Marine reeled off her and his father's names and birthdates.

"She said it didn't sound like her son and anyone could get that information. Then the Marine started giving the names and birthdates of his brothers and sister and special gifts he had received, etc. The Marine would not let his mother hang up. After a short time she began to believe. The father got on the line and also talked. Before long we were all in tears and it was hard to understand what anyone was saying...

Visit Your Local RADIO CLUB

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

ARIZONA

Arizona Repeater Association. P.O. Box 35758, Phoenix, AZ 85069-5758. Operates 20 VHF & UHF rptrs. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., APS 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. 5/99

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

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

Beach Cities Wireless Society. P.O. Box 4016, San Clemente, CA 92674. Meets 2nd Thurs./monthly, 7:30 p.m., Ole Hansen Beach Club, 105 W. Avenida Pico, San Clemente. Rptr. 146.025(+) PL 110.9. 8/99

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. 5/99

Contra Costa Communications Club, Inc., WD6EZC/R. P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 0630, Baker's Square Rest. in Richmond, CA. Info: E. Caine, KA6OFR, (707) 996-0962. 2/00

Downey Amateur Radio Club Inc., W6TOI. Meets 1st Thurs./monthly, 7:30 p.m., So. Middle School cafetorium, 12500 S. Birchdale, Downey, CA. VHF net W6GNS rptr. 146.175(+) Thurs., 7:30 p.m. 5/99

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 Triangle Amateur Radio Club. P.O. Box 1335, Wildomar, CA 92595. Meets 4th Mon./monthly, 7 p.m., Sharp Health Care, 25500 Med. Cntr. Dr., Murrieta, CA 92562. Rptr: KE6UES 146.805(-) PL 100. Info: Norb Dean, AD6F, (909) 767-0449. E-mail: norbjudy@pe.net 7/99

Livermore Amateur Radio Klub, (LARK). Meets 3rd Sat./monthly, 9:30 a.m., City Council Chamber, 3575 Pacific Ave., Livermore, CA. Net Mon. 1900 on 147.12(+). For info: LARK Secretary, P.O. Box 3190, Livermore, CA 94551-3190. (925) 373-1386. 2/00

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

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 8 p.m., Our Savior's Lutheran Church, 1035 Carol Lane, Lafayette, CA. Net Thurs. 7:30 p.m. on 147.06(+) PL 100Hz. Info: (510) 932-6125. 8/99

Nevada County ARC. Meets 2nd Mon./monthly, 7 p.m., Salvation Army Bldg., 10725 Alta St., Grass Valley, CA. Net Tues. 7 p.m. 147.015. Contact Linda Johnson,KE6HWE,lindasue@mail.telis.org (530) 273-2008. 8/99

Sacramento "Old Timers" Amateur Radio Society and Sacramento Valley Chapter #169 QCWA (Quarter Century Wireless Assn.). Meets 2nd Wed./monthly, 8 a.m., Lyon's Restaurant, El Camino Ave. & Watt Ave. For info contact Paul Wolf, W6RLP (916)489-8112. 12/99

Santa Clara County Amateur Radio Assoc., (SCCARA) W6UW & W6UU. P.O. Box 6, San Jose, CA 95103-0006. (408) 249-6909. Meets 2nd Mon./monthly, 7:30 p.m., Hewlett-Packard, Bldg., #48, 19483 Pruneridge Ave., Cupertino. Net all other Mon., 7:30 p.m. W6UU/R 146.385(+), 442.425(+) PL 107.2. 5/99

South Bay ARC. P.O. Box 536, Torrance, CA 90508. Meets 3rd Thurs./monthly, 7:30 p.m., Torrance Memorial Hosp., 3330 Lomita Blvd., Torrance, CA. Talk-in on WB6MYD rpt. 244.38(-). Info: (310) 328-0817. 8/99

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., Covenant United Methodist Church, corner of Towne Ave. & San Bernardino Rd. in Pomona, CA. Info: Chuck, KQ6NX at kq6nx@juno.com or (909) 949-8145 3/00

This month ... Maryland Mobileers Amateur Radio Club, from Severn, MD, 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.

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 contact: 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 Drive, 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. For 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 at noon on rptr. W6AK/R 146.91(-). Steve Cates, KC6TEV, (916) 391-7341 or Les Ballinger, WA6EQQ, (916) 393-4775. 2/00

Trinity Country ARC. P.O. Box 2283, Weaverville, CA 96093. Meets 2nd Wed./monthly, County School Adm. Bldg. in Weaverville, 7:30 p.m., Rptrs: WA6BXN 146.73(-) PL 85.4, W6HOR 146.925(-) PL 85.4. 1[illegible]99

United Radio Amateur Club, K6AA. L.A. Maritime Museum, Berth 84, Foot of 6th St. San Pedro, CA 90731. Meets 3rd Fri./monthly (except Dec.), 7:00 p.m. Monitors 145.52 Simplex 10 a.m.—5 p.m. 8/99

Vaca Valley Radio Club. Meets 2nd Wed./monthly, 7:30 p.m. (Board mtg., 7 p.m.) Vaca Fire Dist. Stn.,Vine St. in Vacaville, CA. Rptr. WD6BUS 145.47(-) PL 127.3. Gerald Grossardt, (707) 447-0869. 5/99

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

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

Westside Amateur Radio Club. P.O. Box 11092, Marina del Rey, CA 90295. Meets 4th Tues./monthly, 7:30 p.m., West Dist. Red Cross Bldg., 11355 Ohio Ave., W. Los Angeles, CA (VA Cntr. grounds). Net every Tues., 8 p.m. 146.67(-) except mtg. night. Website: http://www.qsl.net/wa6rc Voice mail: (310) 917-1100. 7/99

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.zapcom.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 Chiles 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

Bolder Amateur Radio Club (BARC). Meets 3rd Tues./monthly, 7:30 p.m., NIST Bldg., 325 So. Broadway, Rm 1107, Boulder, CO. Talk-in: 146.70(-) & 100Hz CTCSS. Info: (303) 380-6540, e-mail:BARC@pobox.com or www.thisistrue.com/barc.html 8/99

CONNECTICUT

Tri-City Amateur Radio Club. P.O. Box 686, Groton, CT 06340-0686. Meets 2nd Tue./monthly, 7 p.m., St. Lukes Lutheran Church of Gales Ferry on Rt. 12. Info: Bob Dargel, KA1BB, (860) 739-8016. 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 8/99

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 rptrs. 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., Ashworth Middle School, 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. 12/99

HAWAII

Big Island Amateur Radio Club. P.O. Box 1938, Hilo, HI 96721-1938. Meets 2nd Sat./monthly, 2 p.m., Keaau Community Ctr., behind Fire Station on Old Volcano Rd., Keaau. Talk-in on 146.88(-). Lunch, 11 a.m. Fridays, Pizza Hut, Puainako Twn. Ctr. 7/99

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

Koolau Amateur Radio Club, (KARC). 45-145 Mikihilina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Botanical Garden., Kaneohe, HI. Info: (808) 235-3042. http://www.chem.hawaii.edu/karc/ 8/99

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. 8/99

Dupage Amateur Radio Club. (DARC). P.O. Box 71, Clarendon Hills, IL 60514. Meets 4th Mon./monthly, 7:30 p.m., 6015 S. Cass Ave., Westmont, IL. Net Sun., 9 p.m. on 145.25. W9DUP repeaters 145.25(-) 107.2PL, 442.55(+) PL 114.8, 224.68(-). Info: (630) 985-9256 6/99

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. 8/99

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(-). 6/99

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, K9ZZE, (630) 365-0213, k9zze@aol.com 8/99

INDIANA

Land of Lakes ARC. Meets 4th Tues./monthly, 7 p.m., Steuben Co. Annex Bldg., Angola, IN. For info: Theresa J. Limestahl, KB9NNR, (219) 495-5403. Call-in 147.180 PL 131.8. E-mail: llarc-k9hd@yahoo.com 7/99

MARYLAND

Maryland Mobileers 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

MICHIGAN

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.wØsv.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: nøpr@onelist.com 12/99

NEVADA

Frontier Amateur Radio Society, (FARS). Meets: 2nd Sat./monthly, bkfst. mtg. 8 a.m., Country Inn, SE cor. W. Sunset, Valle Verde, Henderson NV. Club info: Jim Frye, NW7O, (702) 456-5396 or Bill Scarborough, WA6ASI, (702) 269-9551. 8/99

Sierra Intermountain Emergency Radio Assoc., (SIERA). Meets 2nd Tues./monthly, 7:30 p.m.. Carson Valley United Methodist Church, 1375 Centerville Ln., Gardnerville, NV. Contact: George Uebele, WW7E, (702) 265-4278, 147.330 MHz. 1/00

Wide Area Data Group, Inc. P.O. Box 3132, Sparks, NV 89432. Meets 1st Sat./monthly, 8:30 a.m., Bonanza Casino/Restaurant, 4720 N. Virginia, Reno. Info: (702) 356-8200. Call on 147.30(+) MHz. 5/99

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. 6/99

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. 8/99

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

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 Coving- ton, 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. 5/99

OHIO

Ashtabula County ARC. Ken Stenback, W8KS (964-7316). County Vo-Ed 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.tmrahamradio.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

Western Reserve Radio Assoc. P.O. Box 81252, Cleveland, OH 44181-0252. Meets 2nd Wed./monthly, 7:30 p.m., Jenkins Communications Cntr., Main St., Olmsted Falls, OH. Info: B. Beckman, N8LXY, Pres., 146.73(-), 444.900(+) MHz. 8/99

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

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, WD6EAW, Telephone/FAX: (541) 883-2736. wd6eaw@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: W6VDF/R 146.90(+) or (541) 673-2747. 6/99

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

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 or 146.655. 10/99

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 Klub, 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. 5/99

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. 7/99

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

WISCONSIN

Cntrl Wisconsin Radio Amateurs, Ltd. Meets 2nd Wed./monthly, 7:30 p.m., UWSP Science Bldg., A107. Info: Al Mallek, N9WBS, 246 Georgia St. North, Stevens Point, WI 54481. Call in on 146.985 or 146.670 5/99

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

Is CW dead?

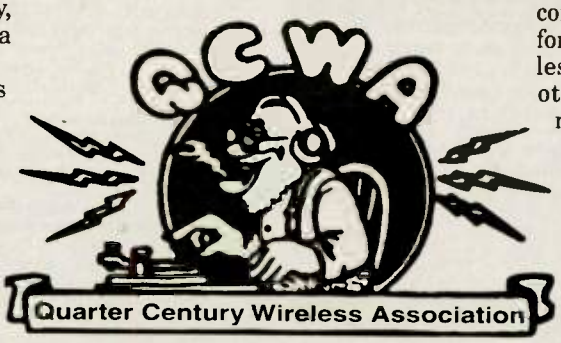
The answer is "no." It may be sick, but to paraphrase Mark Twain, reports of its death are premature.

The following brief history of CW is offered as proof that CW is, hopefully, here to stay, and it may disappear as a requirement, but not as an option.

During the past two to three years the requirement for Morse code testing for an amateur license has been contentious. The focus of the debate has been the ITU requirement, in its Radio Regulations, that "any person seeking a license to operate the apparatus of an amateur station shall prove that he is able to send correctly by hand and to receive correctly by ear, texts in Morse code signals. The administrations concerned may, however, waive this requirement in the case of stations making use exclusively of frequencies above 30 MHz."

The origin of this requirement probably goes back to 1912 and the *Titanic* disaster. At that time the use of radio for ship-to-shore, shore-to-ship and ship-to-ship communication was becoming commonplace; but the lack of international regulation allowed monopolies to develop which impeded the effective use of radio for emergency communications. An ITU radio conference had been scheduled in London in 1912, and the *Titanic* disaster accelerated deliberation on adequate regulations for use of radio aboard ships, particularly to enhance life-saving activities.

Not every ship had scheduled or full-time "radio watches," and other radio users, including radio amateurs, were encouraged to "keep an ear open" for distress calls. To enhance the possibility that distress calls would be heard (and to silence all but distress traffic) every operator (including radio amateurs) was required to be proficient in Morse code.



Virtually all new inventions attract a group of experimenters and hobbyists. Clint DeSoto, in reference 3, says, "Every field of scientific and intellectual research owes a great debt to the amateurs it has attracted and from whose achievements it has benefited." In the case of wireless, their activities involved transmitting as well as receiving, and so from the beginning their activities were regulated domestically and internationally.

These regulations govern generally the frequencies used by amateurs and the major technical characteristics of their emissions, prescribe the degree of technical knowledge required for various classes of licenses, and require testing of proficiency in sending and receiving Morse code in compliance with the extant ITU Regulation.

As an aside, remote signaling and communicating was a human objective for centuries before the dawn of wireless. Smoke signals, semaphore and other means were in use from the middle ages; but Morse code was the first attempt at electrical signaling. In 1840, Samuel F. B. Morse patented a wire-line telegraphy system which used a very efficient message encoding scheme. The ratio of the length of Morse's characters and the frequency of usage of the letters in the English language was, and still is, about 95% efficient.

Many other codes were devised besides the Morse code; and a variation of the Morse code itself (originally called the Austro-Germanic code) was compiled at an international telegraph conference held in Berlin in 1851. This alphabet is still in use and is known variously as the Continental, international or universal code. It's employed on European Morse lines, and is used almost universally in radio telegraphic service.

Until World War II and for some years afterward, this Continental version of the Morse code was the dominant method for commercial radio communications, including the Maritime Mobile Service. (Of course, we must not forget that voice was used for broadcasting and for wireless telephony.)

Technological advances during and after World War II led to the invention of electronic navigation/position-fixing systems — Shoran and Loran, for example. Such systems gave ships the ability to determine their location accurately irrespective of cloud cover which might preclude celestial navigation. At first these systems allowed a ship to accurately and continuously determine its own position; CW was used at MF and HF for ship-shore communication, especially distress communication. However, the advent of satellite systems for maritime communica-

tions and position-fixing in the 60s and 70s gave maritime communications new and better tools.

One consequence of these developments has been that, during the past five years or so, the radio watch maintained on 500 kHz for decades has been virtually abandoned, and CW has given way to data transmission for maritime communications at HF.

This move away from CW had its repercussions in the amateur community, within which there had long been dissention over the real necessity for the Morse proficiency requirement, given that CW was being phased out for distress communications.

In 1998 the FCC proposed substantial changes to its Regulations governing the Amateur Service (see #4 of the Bibliography), including changes in the requirements for testing Morse code proficiency, particularly for operation below 30 MHz. The Commission asked for comments on the proposed changes by 01 December 1998, and reply comments by 15 January 1999.

This was part of an ongoing, Congressionally-mandated action pursuant to Section 11 of the Communications Act of 1934, as amended. This time it was the Amateur Service's turn to be reviewed and amended. (In the introduction to the NPRM the Commission stated, "With this NPRM we commence a proceeding to examine our rules for the Amateur Radio Service in an effort to eliminate unnecessary and duplicative rules, as well as to streamline our licensing processes. We also examine streamlining initiatives for the Amateur Radio Service in addition to those already described in our proposals concerning the Universal Licensing System."

More than 2,000 comments were submitted. Some comments expressed disappointment that the Amateur Service was allegedly being "dummied down," particularly in terms of reducing the number of license classes, lowering the requirements for Morse proficiency, etc. Actually, the proposed changes reflect the changes in technology, the decreased use of Morse code, and the trend in Government to downsize and deregulate.

Many viewed the proposed changes as "unprecedented." Actually, the history of regulatory changes in the Amateur Service paints an ever-changing picture, in which the proposed restructuring is just another element. This is clear from the text of "Postscript: 80 Years of Licensing," from *The FCC Rule Book; Complete Guide to the FCC Regulations Governing Amateur Radio*, 1995 by The American Radio Relay League. The text is reproduced here, with permission from ARRL.

"Until 1912, there was no licensing, no regulations and no governing body to oversee wireless activities on the airwaves. Before long, however, it became evident to federal authorities regulation was needed to maintain order. Conflicts between amateur stations and those used by the Navy and commercial services were on the increase. The first regulation came in the form of licensing.

"The era of mandatory licensing began when the U.S. Department of Commerce and Labor, under the authority of the Radio Act of 1912, created the Amateur First Grade and Amateur Second Grade operator licenses. The two classes bestowed identical privileges and, at least theoretically, required identical qualifications.

"Amateur First Grade applicants took written tests on radio laws, regulations and the proper adjustment and operation of equipment. The code sending and receiving tests, originally 5 wpm, increased to 10 wpm by 1919. Candidates for Amateur Second Grade, in contrast, certified to Radio Inspectors by mail that they could meet these requirements, but were unable to attend an examination..

(Due to the length of this article, the second half will appear in the QCWA column in the July issue. — Ed.)

Old-time Radio

How I got started in radio

James Welch, KK6N

It was 1924 and radio was the current rage. One afternoon my father brought home a crystal radio. It was a simple thing — black sheet metal box about six inches by eight inches, about two inches high. There were four binding posts, two for the antenna and ground, two more for the headphone tip jacks.

The deal also included about 100 feet of bare stranded copper wire, a pair of insulators and the insulated lead-in wire. That little set received KPO, KGO, KJBS and other local broadcasters, but it wasn't long before I started hankering for another receiver. I had the bug

That was when I discovered that the local Woolworth's carried some simple texts on building crystal sets, and all the needed parts were for sale in the store. The big catch was, I didn't have any money.

That was about the time a neighbor started a new venture and was looking for a delivery boy and I got the job. It was a piece of cake; my neighbor had me deliver packages to his customers around the neighborhood. I was so young and innocent that I realized only years later the nature of the neighbor's business, but I did notice that the customers usually were having a lot of fun.

My life in radio continued; learn the code, get a Ham license, get a commercial telegraph license, work as a ship operator, go to work as a land station operator, work in a vacuum tube factory, go into the service, work in broadcasting and finally, become an aerospace communication engineer.

It all developed from my initial funding working for the neighbor.

Richard Fisher, KI6SN

The amazing NorCal NC20

Whether by happenstance or design, the Northern California QRP Club is ushering out the 20th Century with a bang! One being heard, quite literally, 'round the world.

As first announced in the August 1998 ***Worldradio*** QRP column, NorCal's Doug Hendricks, KI6DS, and a worldwide supporting cast of designers, builder/testers, writers and distributors have developed a 20-meter QRP transceiver kit called the NC20, built to withstand the rigors of DX-band QRM found anywhere on the planet.

Of the 1,000 kits packaged, 500 would be sold by NorCal to QRPers anywhere, and the remaining 500 would be given away to radio amateurs in Third World countries. The QRP Club of Great Britain, under the leadership of the Rev. George Dobbs, G3RJV, is handling this massive distribution of free kits.

In February, the first kits shipped to 500 buyers, and the smell of melting solder wafted across the land.

For many projects of this magnitude, unfortunately, the hype often outstrips the intrinsic value of the final product. Great bluster is followed by ho-hum.

Having just completed the NC20 and having had a few days to run the radio through its paces, NorCal has outdone itself once again, as hard as that may seem to believe, with a kit of superb quality and performance.

Perhaps the best news of all is that the kit soon will be produced commercially for all to build, use and enjoy. As soon as those details are available, I'll bring them to you.

Designed by David Fifield, AD6A, the NC20 comfortably churns out 5-watts of nice sounding CW and has a superhet receiver that matches the sensitivity, selectivity and clarity of some of the best commercial rig lines today.

Beyond the fundamentals, however, are some bells and whistles that make the NC20 a pure joy to operate:

— An audible frequency annunciator (AFA) was designed specifically for the NC20 by Mike Gipe, K1MG, providing instant frequency identification. It can be integrated either to automatically announce the operating frequency each time the operator moves the dial, or to announce the frequency only when the operator asks for it, by pressing a convenient front panel button. Either way, the AFA sends in CW a two-digit readout. For example, when the operator happens to be on 14.041 MHz, the AFA paddles "41."

— To scale back the brain-numbing and overwhelming CW QRM so common on 14 MHz, the NC20 has an RF attenuator adjustment easily reached on its rear panel. The NC20's filtering and automatic gain control (AGC) circuitry was painstakingly developed, too, to make the best of bad operating conditions.

"There are some bells and whistles that make the NC20 a pure joy to operate."

— The rig is housed in a pre-drilled, sturdy and handsome aluminum case made specially for the project by Doug Hauff, KE6RIE, of San Luis Machine Co., San Luis Obispo, CA. It's five and one-eighth inches wide and deep, and two and one-half inches high.

— A TiCK keyer from Brad Mitchell, WB8YGG, and Gary Diana, N2JGU, of Rochester, NY-based Embedded Research is integrated into the radio's PC board circuitry. A TiCK-2 chip comes with the kit. But upgrading to the top-of-the-line SuperTiCK-3 is as simple as popping in the new IC. There is an override if the operator wants to use an outboard keyer.

All of these nice features do not come without a price, however. This is not a simple kit.

There are hundreds of parts, some of them quite tiny, and 12 challenging-to-wind toroids tightly packed onto the NC20's four and three-eights by five-inch printed circuit board. Traces are very close together in some places, and the high quality, plated-through board design is unforgiving to the builder who solders a part in the wrong place, or has to replace a defective component.

Beginning builders beware. The NC20 might be a bit more than you're ready to handle.

For the seasoned homebrewer, though, the NC20 is nirvana. Upon arrival here at KI6SN via Priority Mail, the NC20's multiple parts baggies were opened and inventoried. The design team has parsed the components into tidy groups that make this task easy.

A nicely written and illustrated 37-page (8.5 X 11) instruction manual accompanies the kit, taking the builder through construction in a measured 'build a section, test a section' manner. For those with a thirst for understanding how and why RF and audio circuits do what they do, this is an excellent learning exercise. Fifield directs the builder to make multiple voltage checks as the rig comes together, assuring that the circuitry attended to at the moment is operating properly before proceeding to the next section.

Testimony to the worth of this building method is that of the hundreds of NC20s already distributed and built, I've not heard of one that isn't working.

It took me fully 25 hours to put the NC20 together — over several days at the workbench, of course.

We start with some basic hardware assembly. The PC board is married to the front and rear panels, held in place by the NC20's potentiometers and input and output jacks. Not only does this create the physical foundation for the radio, but it raises the PC board above the surface of the workbench, making a wonderful plane on which to solder parts — and solder you will!

Section by section, the NC20 comes to life. First is the power and voltage regulation circuitry, followed by the VFO, then the VFO buffer/amplifier, TUNE and RIT control circuitry, audio amplifier, audio pre-amplifier, audible frequency annunciator, VFO adjustment procedure, keyer and transmit control circuitry, receiver, automatic gain control (AGC), and finally the transmitter.

To make sure that the NC20 had the

A QSL card from Dean Manley, KH6B, in Hawaii confirms one of the first contacts made with the new NorCal NC20 transceiver at KI6SN in Southern California.

receiver and transmitter bravado to perform well anywhere in the world, Fifield went out of his way to 'bullet-proof' its design. This translates into some current demands that fly in the face of the design methodology of Fifield's predecessors. On receive alone, the NC20 draws fully 150 milliamperes. Power-up requires 10 to 14 volts DC. Though it weighs only 1-pound, 2 ounces, current requirments make it clear that the rig was not really designed for the backpacker.

The NC20's single conversion superhet receiver bandwidth is about 300 Hz, providing narrow skirts for comfortable operation in crowded conditions, such as those encountered routinely in Europe. The filtering, coupled with two audio-derived AGC loops and two-watts of audio makes the receiver side of the house world-class. Indeed, there's so much audio from an LM380N, the manual cautions operators about being kind to their ears.

Some builders have opted to use a 10-turn potentiometer for the NC20's main tuning control, and Fifield has provided for such a substitution on the PC board. No detail has been overlooked in this design — believe me.

The NC20's IF is 9 MHz, and dual crystal filters (a four pole main, and single roofing) keep incoming signals in line. Stopband attenuation is -70 dB. Receiver incremental tuning (RIT) is adjusted via the front panel. RF attenuation is on the back panel.

The rig's VFO is varicap-tuned using a potentiometer on the front panel, covering 30+ KHz of the band. The builder chooses which portion of 20 Meters to tune. After initial warm-up, the NC20 is rock solid. A rugged 2SC1969 final transistor is fixed to the NC20's back panel — providing plenty of heat sink area for cool operation.

Once completed, tune-up and alignment takes about 10 minutes by adjusting a series of board-mounted trimmer capacitors and potentiometers. The only test gear needed is a voltmeter and a separate monitoring receiver — simple.

With the exception of having to replace a faulty 100 MHz crystal in the AFA circuit, my NC20 went together smoothly and was putting a solid 5-watts to the antenna moments after alignment. Indeed, this rig can comfortably run QRO at 7 watts, given a suitably hefty power supply.

Daylight was waning on the afternoon of the NC20's inaugural voyage. Only a few CW signals dotted the band between 14.040 and 14.075 MHz — the 35 kHz of 20 Meters my NC20 had been set to tune. A station in Texas was calling CQ, and coming in about 569. "What the heck," I thought. "I'll give him a try." We ended up having a solid 15-minute QSO. The rig sounded great. After 25 hours of solder fumes and squinting at small parts, that contact felt very, very good.

A couple of days later, I called CQ on the 20-meter QRP calling frequency (14.060 MHz) even though the band sounded deader than the proverbial doornail. Out of the noise comes Dean Manley, KH6B, an avid QRPer and head of the Hawaii QRP Club. He lives on the big island of Hawaii in Hilo.

We had met at the West Coast QRP Symposium at Pacificon a couple of years earlier, and it was great to renew an old friendship. What made the contact even more special was that this was Dean's first 20-meter contact using a brand new Elecraft K2 transceiver kit. New rigs and high-fives all around!

Subsequent forays on the air have yielded dozens of contacts, even though band conditions have not been at their best. Considering I'm using a droopy, coaxial-fed dipole cut for 40 Meters, I'd say the NC20 has performed superbly.

From project manager Hendricks and designer Fifield to the entire development, testing and distribution team, this project has been a fantastic effort from start to finish.

With the unveiling of NorCal's NC20, radio amateurs both here and in the Third World are in for a real treat, indeed.

— Richard Fisher, KI6SN, can be reached at: 1940 Wetherly Way, Riverside, CA 92506 or via e-mail: KI6SN@aol.com.

An extraterrestrial visitor

I hope you enjoyed last month's lighter-side column. The first thing that should have rung an alarm bell was the first sentence with the reference to "30 February." And all of the names, references, and even the electron density profile of Figure 1 came from the old Rocky and Bullwinkle TV show. Enough leg-pulling for now — let's get back to the serious stuff.

An interesting thing happened one day last summer — we had an extraterrestrial visitor. Ok, what is this? Another April Fool column? Nope. It's true, and here's the story.

On 27 August 1998 an extremely intense gamma ray flare passed through our solar system at about 1022 UTC. It lasted for five minutes or so. At the time the flare hit, the Earth was oriented such that the flare encountered the night-time side of the ionosphere.

This flare originated from a distant star in our own galaxy (the Milky Way) about 23,000 light years away. I think that qualifies it as an extraterrestrial visitor! The star is described as a dense ball of super heavy matter weighing more than our Sun and no larger than a mountain. It has a magnetic field far greater than anything known to exist in the Universe. This star is named SGR (for Soft Gamma Repeater) 1900+14.

As a result of this flare, the ionization in the night-time ionosphere increased to daytime levels. How did this affect propagation? It turned the night ionosphere into a day ionosphere for several minutes. Did anyone catch this event to actually see what happened to signal levels?

Yes, someone did. It was Stanford University. They maintain a network of four VLF transmitters: one in Hawaii, one in Washington State, one in Maine, and one in Puerto Rico. The signal level of these transmitters is monitored at a site in Colorado.

The path from Hawaii to Colorado went through that part of the night-time ionosphere that was hit by the flare. Figure 1 is a plot of the signal level of the Hawaii transmitter as received in Colorado. Note the significant drop in signal level around 3:30 a.m. Colorado local time — that's exactly when the gamma ray hit as observed by the Ulysses satellite. It increased the D region ionization to daytime levels. The signal from Hawaii was absorbed as if it was daytime. The reduced signal strength didn't last too long, though — within 5 minutes or so the normal night-time signal level was back.

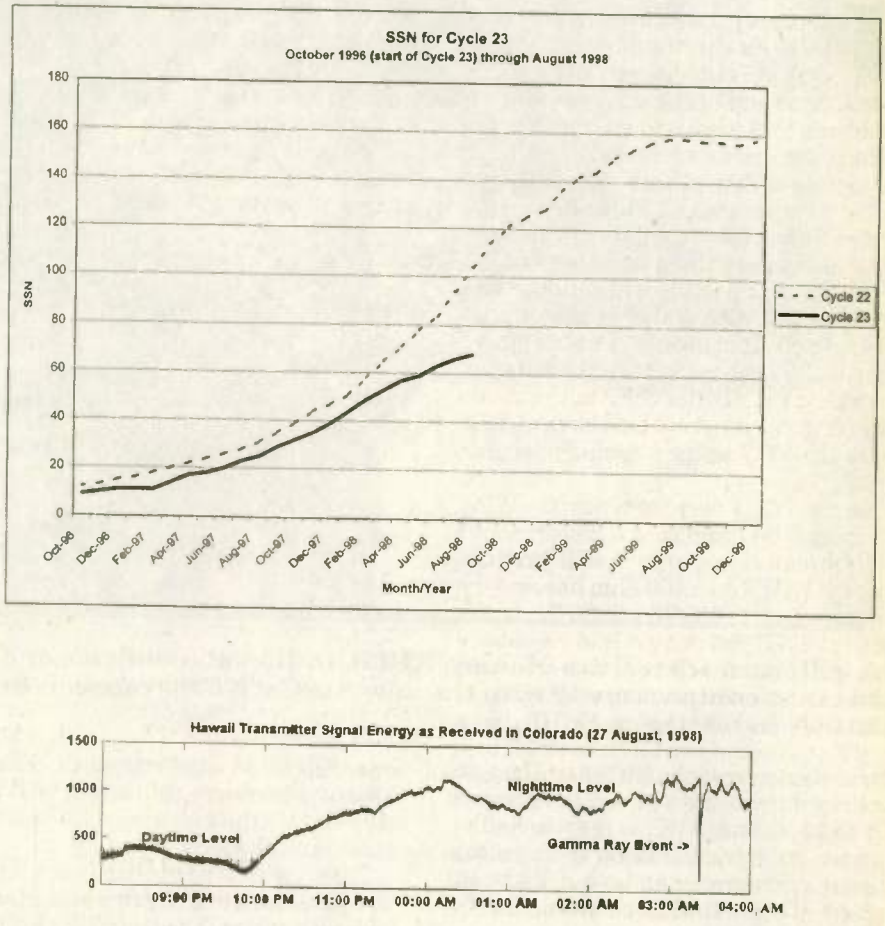


Figure 1

Our extraterrestrial visitor didn't stay too long, but it sure let us know it was passing through. I find this whole thing kind of interesting to think about — something 23,000 light years away affected our ionosphere. As a reference, our Sun is only .000016 light years away.

For more details about this flare and the Stanford University VLF monitoring system, check out http://hail.stanford.edu/gammaray.html.

Finally, another update of Cycle 23 is included this month. It's interesting to note that the recent issue of *CQ* (March 1999) predicted an SSN of 78 for August 1998 and the recent issue of *Communications Quarterly* (Winter 1999) predicted 94. But it came in at 68. It's easy to see by the plot that Cycle 23 isn't rising as fast as Cycle 22, and it also appears that it's not meeting its high expectations — at least not yet. Hopefully it'll still be a big one, just taking a little longer to get there. Only time will tell.....

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

Kurt N Sterba

The cruel world of antennas

It seems to be a never-ending task to keep the fundamental principles of antennas straight in this cruel and unrelenting world. Misleading and sometimes completely wrong assertions are found in print. In print there are editors who take out most of the trash. The editor-free Internet forums are another story. Anyone can say anything and many do.

In a recent posting a questioner had a dipole fed with 400-ohm ladder line. It had a SWR of about 4:1 at the transmitter. He wanted to trim the antenna length to get a better SWR at the transmitter and was afraid he'd have to measure the SWR at the antenna to do this properly.

In the many responses not one of the "experts" told him that a dipole (about 75 Ohms) at resonance will produce over 4:1 SWR on a 400-ohm line, maybe even over 5:1 (400/75 = 5.3). Since the lowest SWR you can get is at resonance his antenna most likely was resonant and any antenna pruning would almost certainly make things worse.

They also did not tell him that since he had measured the SWR at the transmitter, there was no need to measure at the antenna. SWR is the same anywhere on a transmission line, unless there are significant losses, and you aren't going to find much loss on a 400-ohm open line.

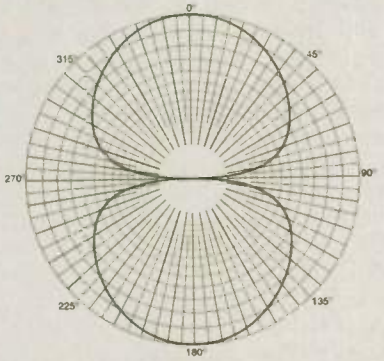
To make matters worse the poor soul was led to an antenna where the SWR was made low by changing the length of a transmission line. At first reading I'm afraid the neophyte might misunderstand what was being done. Let me repeat: You can't change the SWR by changing the length of the transmission line.

Many of these problems and misunderstandings arise because many of us use antenna tuners and forget what the whole system looks like. Kurt will straighten this out by getting down to basics.

In the typical installation the antenna is connected to the antenna tuner by a transmission line. We'll call this transmission line "A." The transmitter is connected to the tuner with a short coaxial line we'll call transmission line "T." The SWR meter is placed in line "T."

The load for line "A" is the antenna and the SWR on this line does not change as you tune your tuner. If you don't believe Kurt, and if line A is coax, put your SWR meter in line with it and try to change the SWR with your tuner. Can't be done.

The load for line "T" is your tuner. You can adjust the tuner so as to get 1:1 SWR on this line by adjusting the tuner so its transmitter input is 50 ohms resistive. The tuner acts as a variable



transformer to transform whatever impedance is at the end of line "A" into 50 Ohms resistive for line "T."

So when we "tune the antenna" with our tuner we are adjusting the tuner to give 1:1 SWR on line "T." Line "A" keeps the same SWR it had before. Keep this in mind and many confusions will go away.

Impedance

SWR is Standing Wave Ratio. Ratio of what? Ratio of the maximum voltage along the line to the minimum voltage. The voltage changes along the line (standing waves, remember) and so does the current. Because of this the impedance along the line changes even though the SWR does not. (Ohm's law: Z = E/I). So the impedance at the end of the line changes with line length. You can use this to get a more favorable impedance at your tuner just by changing line length.

That's the principle used in the antenna mentioned above where the SWR was made low by changing the length of a transmission line. The length of one transmission line was changed to reduce the SWR on a second transmission line by presenting it with a matching impedance. Lil would never let me put this maze of wires in the house; she thinks I have more than enough wire running around already. But I'm sure it works just fine. You can see it at www.bigfoot.com/-w6rca.

Coax vs. Ladder Line

As I read on into the advice given the Internet questioner, tears came to my eyes again as a renowned antenna expert told him that ladder line to a balanced antenna does not give any better current balance that feeding with coax. So why do we have a cottage industry busily making baluns (balanced to-unbalanced transformers) to connect coaxial cable to balanced antennas? And why don't we have a similar industry selling bal-bals (or whatever you want to call a balanced-to-balanced transformer) to connect ladder line to balanced antennas? Kurt can tell you why.

A balanced antenna like a dipole, fed with a balanced line such as ladder line is a balanced symmetrical system. There are equal currents on each of the ladder line wires. Where they connect to the dipole, current flows from one of the ladder line wires into one side of the antenna and an equal current flows from the other wire into the other side of the antenna. There is no problem of any kind.

But when a balanced antenna is fed from coaxial cable there is a problem. It's brought on by the fact that all of the current coming up the coax is confined to the inside of the cable. There is current on the center conductor and on the inside of the shield but none on the outside of the shield. Up where the coax meets the antenna, current flows from the center conductor to one side of the antenna. An equal current flows out of the inside of the shield and should flow onto the other side of the antenna. But, look! There's another "wire" connected at this point: the outside of the shield. What prevents the current from flowing down it? Nothing. So the current divides and we have less in that side of the antenna than in the side connected to the center conductor. How to cure the problem? Put on a balun!

Yes, in the real world there can be unbalance with ladder line if the line doesn't come straight down from the antenna, or if there are metal structures nearby. "Common mode" currents can flow on ladder line. But if the installation is neat and proper, there's no problem. On the other hand a neat and proper coax installation without a balun can have the problem and probably will.

(Alas, there are those who will, sadly, never accept the truth, unfortunately for themselves and others whom they will mislead. Onward, Kurt, Onward and Upward!)

Dave Goodwin, VE2ZP/VE9CB

Contest information in print

There are a number of regular printed sources of information about Amateur Radio contests. The first sources for many people are the contest columns in Amateur Radio journals. In the U.S., there are three general-interest magazines about Amateur Radio that include a monthly column with information about contests: *QST*, published by ARRL, *CQ* magazine, and ***Worldradio***.

QST's "Contest Corral" column provides abbreviated rules for contests sponsored by organizations around the world. There is no commentary provided and no other information available in this column. However, ARRL sponsors a large number of contests, including some of the biggest HF and VHF events, and the results with complete commentaries do appear in *QST*.

Well-known and accomplished contester John Dorr, K1AR, has been writing the contest column in *CQ* magazine for several years. John's column is an interesting combination of summarized rules for contests sponsored around the world, along with commentary on current issues in contesting and some hints for new hams and beginning contesters. *CQ* magazine also sponsors seven of the world's most significant contests, including the premiere HF DX events (*CQ* WW DX) and the most important 160M contests (*CQ* WW 160M DX). Full results of these contests, with commentary are a regular feature of *CQ* magazine.

As regular readers of ***Worldradio*** know, this column includes summarized rules for many HF and some VHF contests. The accent in this column is on introducing people to contesting, complete with examples of how to make contest QSOs.

Around the world, national organizations, such as the Radio Amateurs of Canada (RAC), the Radio Society of Great Britain (RSGB) and the Radio Club Argentino (RCA), just to name three, publish magazines for their members that try to cover Amateur Radio in those countries as comprehensively as they can. Most include a regular column on contesting, often focusing on the achievements and activity of contesters in that country.

Specialized Magazines

In the English language, there are two major specialist magazines for contesters. Both are published in the U.S., and are well worth the cost of a subscription.

The *National Contest Journal* (*NCJ*), is the more senior of the two. Now in its 27th year of publication, the bimonthly *NCJ* started out as a labor of love, painstakingly hand-typed and photocopied. It's physical quality was crude, but its content had and still has a well-deserved reputation as an intelligent forum where the best and brightest of U.S. contesters share their ideas, observations and experiences. Dependant as it was on an all-volunteer crew, *NCJ* had several near-death experiences before they linked up with ARRL several years ago. ARRL now provided *NCJ* with many professional services, including subscription management, layout and publication.

NCJ is still a bimonthly, but it is now a very professional-looking magazine. More than half the magazine consists of feature articles, ranging from technical articles and equipment reviews through tales of contest expeditions (like a DXpedition, but for a contest), "first-person" stories of one's experiences in a particular contest, and opinion articles on a myriad of contest-related subjects. The technical articles are generally of excellent quality, reflecting the caliber of some of the readers, and the chattier pieces are generally well-written, reflecting well on the care taken by the editor.

NCJ's regular columnists cover the waterfront: VHF/UHF contesting (a completely different world from HF contesting), RTTY contests, contest expeditioning, and a column of helpful contesting hints contributed by readers are just a few of the regular features.

NCJ also sponsors ten of its own contests, and the full results of these events can be found there. I quite like *NCJ*. It is well-written, informative, and contains a nice balance of material ranging from the purely technical to the purely operational. At 56 pages once every two months, it is a substantial read, and old issues are well worth keeping.

While there is plenty to read about DX contests, *NCJ* has long had a deserved reputation for its emphasis on the ARRL Sweepstakes, among other "domestic" contests. For the SS fan, *NCJ* is a great place to find detailed analysis on this contest. For those who are indifferent to the SS (like me), these articles can be perplexing and tedious. The "all-SS issue" is now a thing of the past with *NCJ*.

NCJ also has a web site if you want to learn more about the magazine. Point your browser to www.waterw.om/~ncj/ and you may get a better idea of what *NCJ* has to offer.

If you want to subscribe, current rates for U.S. addresses are: $18 for regular mail, $26 for first class mail. Send your order to: Circulation Department, ARRL, 225 Main St., Newington CT 06111, or call toll-free in the U.S.: 1-888-277-5289.

CQ Contest is one of two new specialist magazines published by the same folks who have been producing *CQ* magazine since 1945. *CQ Contest* is now in its fourth year. As much as *NCJ* may be oriented towards domestic contests, *CQ Contest* leans towards the DX contests, especially *CQ*'s own *CQ* WW

DX contests.

CQ WW fans will find additional results, beyond what you see in *CQ* magazine's writeups of its own contests. Analyses of logging accuracy, detailed results of subsidiary categories, like the *CQ* WPX "Tribander and single-element LF antenna" (TS) and "Rookie" categories get full play in *CQ*-Contest. They also publish *CQ* WW records zone-by-zone.

CQ Contest is generally long on columns, on such themes as antennas, VHF-UHF contesting, tower erection and maintenance tips, the history of contesting, women in contesting and interviews with prominent contesters. *CQ Contest*, however, has attracted fewer technical articles or other features. While *NCJ* feels like a magazine for and about American contesters, *CQ Contest* has a more international character.

CQ Contest is published ten times per year, each issue running averaging forty to fifty pages. A one-year subscription costs $30.00 for residents of the United States. You can order your subscription from *CQ Contest*, 25 Newbridge Road, Hicksville NY 11801, by telephone at (516) 681-2922 or by fax at (516) 681-2926.

Contests of the Month

Clearly the largest contest this month is *CQ*'s WPX CW contest. This is one of the six largest DX contests every year. This one was profiled as "Contest of the Month" in the May 1998 issue of ***Worldradio***. You may want to look up that issue.

Otherwise, May provides a buffet of U.S. State QSO Parties and interesting national contests.

The U.S. States with QSO parties include: Massachusetts (MA), Connecticut (CT), Oregon (OR), Nevada (NV), Indiana (IN) and Texas (TX). Of these, the largest is the Texans' affair in late May, but the biggest weekend for state QSO parties is 8-9 March, where at least three states will run events. If you're a county-hunter, these could be very productive contests for you, and fun to boot.

National contests include those sponsored by national amateur societies in Italy, Russia, and the Baltic countries of Latvia, Lithuania and Estonia.

These contests all have distinct rules, but there is one general theme: work stations in those areas only. Of course, there's nothing to prevent you from working several contests at once.

New VHF Contests

I confess only a very rudimentary knowledge of the VHF contest scene, but I am learning, as after almost a quarter-century in this hobby, I am taking my first tentative steps into the realm beyond 29.7 MHz. ARRL sponsors most of the most popular VHF contests in North America, and until recently, they had also sponsored some very short single-band "sprints" every spring. ARRL recently announced that because of the low number of entrants, they have abolished these sprints. Into the breach, dear friends, strides *CQ VHF*, the VHF-oriented sister publication of *CQ* magazine. In their February issue, *CQ VHF* announced their sponsorship of three new VHF contests, one each of weak-signal modes (CW and SSB), FM and so-called "specialized modes." This month features the third of these (print deadlines prevented me from reporting these earlier), focused on "specialized modes," such as video, RTTY, AMTOR, packet and other digital modes. What's more, each of these events is actually nine short "sprints" of six hours each. That means you can work the same station on the same band every six hours.

From my very limited experience above 50 MHz, VHF contests are very different affairs from HF contests. First, on the weak-signal modes (CW and SSB), contests are the time when the bands can come alive, as there is often little activity at other times. Second, no one exchanges signal reports in VHF contests anymore. Grid squares, a four- or six-character geographic identifier (I live in FN25), are the universal exchange in every VHF contest, so if you want to take part, be sure to figure out your grid. Third, most people on VHF and above use antennas that are unbelievable directive by HF standards. To work stations, it is absolutely critical that both parties point their antennas the right way — if you don't, you simply won't hear anyone. The treat comes when a seemingly quiet band suddenly yields a shockingly strong signal.

Next month, I will feature the ARRL VHF QSO Party as "Contest of the Month."

73 and good luck in the contests. — *Dave Goodwin, VE2ZP/VE9CB, can be reached via e-mail: ve2zp@rac.ca; packet:* VE2ZP@VE3NAV.#EON.ON.CAN.NOAM

Contest Calendar

Contest	Date & Time	Bands	QSO points	Multipliers	Exchange	Entry Categories	Entries
Massachucetts QSO Party (USA)	1800z 1 May 2100z 2 May 0400-1100z off time for all entrants	All bands	1pt/Phone QSO 2pt/CW, digital, sstv QSO	Stns outside MA Work MA stns only; MA stations work everyone. Stns outiside MA: MA counties (14) on each band MA stns: MA counties, US States, Canadian Provinces and territories, DXCC on each band.	RST QTH	- Outside MA - MA Single op - MA Multi-op - MA Portable - MA team (5 MA single ops)	6 Jun FARA POBox 3005 Framingham MA 01701 USA or e-mail to n1tyh@aol.com
ARI DX (Italy)	2000z 1 May 2000z 2 May	160-10m CW, SSB and RTTY	0pt/VE 1pt/NA 3pt/DX 10pt/Italy	Italian Provinces (103) + DXCC on each band Is will send a 2-letter province abbreviation.	RST Ser#	Single op: All modes, single mode Multi-op, single tx SWL	1mo. Box 14 27043 Brioni (PV) Italy
Connecticut QSO Party	2000z 1 May 2000z 2 May 0400-1200 off time for all	160-2m Phone, CW, & RTTY	1pt/Phone, RTTY 2pt/CW QSO 5pt/QSO w/W1QI or W1AW	Connecticut counties CT stations count CT counties, US States, Canadian Provinces and Territories, DXCC countries.	RST QTH	Single op: fixed, mobile, Novice, QRP Multi-op: Single tx, multi-tx	5 June CARA, POBox 3441, Danbury CT 06813-3441 USA
Nevada QSO Party	0000z 8 May 0600z 9 May	160-6m CW, SSB, RTTY, Packet	1pt/Phone QSO 2pt/other modes	Nevada counties Nevada stations count Nevada counties, US States, Canadian Provs & Terrs, DXCC countries	RST QTH	unknown	NW7O
Oregon QSO Party	0000z 8 May 2359z 9 May	All bands (exc 10, 18, 24MHz) All modes	1pt/Phone QSO 2pt/CW QSO	Oregon counties (36) Oregon stations count Oregon counties, US States, Canadian Provs & Terrs, DXCC countries	RST QTH	Single Op Multi-op Mobile Novice/Technician	30 June K9QAM
A. Volta RTTY (Italy)	1200z 8 May	80-10m RTTY 1200z 9 May		DXCC + Call areas in Canada, Australia and USA	RST Ser# CQ Zone	Single Op: All bands, single band Multi-op single tx SWL	31 Jul Box 55 22063 Cantu
Indiana QSO Party	1800z 8 May 2300z 9 May	160m-70cm CW and Phone	2pt/Phone QSO 3pt/CW QSO	Indiana counties: Indiana stations also count US States, Canadian Provinces and territories and DXCC countries	RST QTH	Single Operator Multi-operator VHF/UHF	11 June Sharon Brown, 905 W Parkway Dr, Pleasant Lk, IN 46779 USA
CQ-M Int'l DX Contest (Russia)	2100z 8 May 2100z 9 May	160-10m +satellites CW, SSB & SSTV	1pt/own country 2pt/other NA 3pt/DX	DXCC countries + Russian automous oblasts, Arctic islands, Crimea (UU), 4U1VIC (see full rules)	RST Ser#	Single Op Single band: Mixed mode, CW only, SSB only, Satellites Single Op All Bands: Mixed mode, CW only, SSB only, QRP Multi-op single tx SWL; World War II veterans; SSTV only	1 July CQ-M Ctte Box 88 Moscow Russia or e-mail to: cqm98@mai.ru
European Spring Sprint SSB	1500z 15 May 1859z 15 May	80-20m SSB	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days DL6RAI
Baltic Contest (Lithuania)	2100z 22 May 0200z 23 May	80m CW & SSB	2pt/QSO Work ES LY YL only	None	RST Ser#	Single Op: Both or single mode Multi-op, single tx SWL	1 Jul Box 210 Kaunas LIT
CQ-VHF Spring Specialty Modes Activity Weekend	21-23 May Nine 6-hour periods starting @ 1800 local time	Video, RTTY, AMTOR, Packet and other digital modes on all Amateur bands above 50MHz	1pt/50, 144MHz 2pt/222, 432MHz 3pt/902, 1296MHz 4pt/2304MHZ & higher QSO	Work each station once per band in each 6-hour period. Grid squares worked on each band Repeaters may be used	Grid square	Single Op Fixed Station: - QRP (max. 10w) - QRO (more than 10w out) Multi-op Fixed station: - QRP (max. 10w) - QRO (more than 10w out) Rover	30 days CQ-VHF Magazine or e-mail to weekend@ cq-vhf.com
Texas QSO Party	1400z 22 May 2200z 23 May (0500-1400 off-time for all)	80-2m CW & SSB	1pt/SSB 2pt/CW 5pt/Mobiles 7pt/Mobiles in CW	Texas counties (254) Texas stations count Texas counties, US States, Canadian Provinces & Territories and DXCC countries	QTH	Single op: Fixed, Mobile, QRP Multi-op: Fixed, Mobile, QRP	30 June Box 540291 Houston TX 77254-0291
CQ WPX CW	0000z 29 May 2359z 30 May	160-10m CW	0pt/VE 2pt/NA 3pt/DX x2 on 160 80 40m	Total of prefixes worked, regardless of band	RST Ser#	Single Op: All bands, Single band, Assisted, Low power, QRP Multi-op: Single or Multi-tx	1mo. CQ mag
IARU Region 1 50MHz	1400z 5 Jun 1400z 6 Jun	6m CW & phone	1pt/km (to convert degrees to km, mult by 112.2)	None	RST Ser# Grid locator	Single op using own equipment; All others	7 weeks OZ1EYN
Portugal Day Contest	0000z 12 Jun 2400z 12 Jun	80-10m SSB	6pt/CT, CU 3pt/others 0pt/own country	Portuguese districts and DXCC countries worked on each band CT, CU will send name of District or region	RST Ser#	Single Op All Bands only	31 July PO Box 2483 1112 Lisboa PORTUGAL
TOEC Field Contest SSB (Sweden)	1200 12 Jun 1200 13 Jun	160-10m SSB	1pt/NA 3pt/DX 3pt/any mobile	Total of Maidenhead "Field" locators. The first two letters of your square are your "Field."	RST + Grid grid (ie. FN25)	Single Op: All band, Low power, Single square Multi-op: Single or multi-tx Single op entrants may not use use PacketCluster	1mo. band Box 2063, S-831 02 Ostersund Sweden
WW South America CW (Brazil)	1500z 12 Jun 1500z 13 Jun	80-10m CW	0pt/VE 2pt/NA 4pt/DX 8pt/South Am.	DXCC + South Am. prefixes on each band Final score is the sum of band-by-band scores	RST Ser#	Single Op: All bands, Single band, QRP Multi-op: Single or multi-tx	30 days Box 282 RioDeJan. 20001-970, Brazil
ARRL VHF QSO Party	1800z 12 Jun 0300z 14 Jun	50MHz to microwaves	1pt/50 or 144MHz 2pt/220 or 432MHz 3pt/903 or 1296MHz 4pt/above 2304MHz	Grid squares worked on each band NOTE: do not use 146.52 or any repeaters	Grid Square	Single Operator: Multi-band, single band, QRP portable (max 10w out) Rover (single or multi-op, operating from at least two grids) Multi-op Limited Multi-op (max four bands)	30 days ARRL or e-mail to contest@arrl.org

Addresses: CQ and CQ-VHF - 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.

Hamfests — May

ALASKA

Birmingham Hamfest/Computer Show 01-02 May, at Zamora Temple (off I-459 E. of Birmingham). For info... Dealers call: Eddie Oliver, KD4BWW, 205/956-9636. Flea Market space call: Walter Cooney KF4AAG, 205/823-8249. Tailgaters call: Dan Morgan KB4MDI, 205/681-5019, or contact the Hamfest Chairman, Glenn Glass, 205/681-5019.

CALIFORNIA

North Hills Radio Club Swapfest 23 May, 6 a.m.-12 p.m. at Bella Vista High School (8301 Madison Ave., Fair Oaks, CA) Admission FREE. Tables: $10. Refreshments and lots of parking. For info: Earl Mead, K6ESM, 916/331-1115. Email: nhrc@k6is.org.

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Fresno Hamfest 08 May, at Riverland Resort in Kingsburg. Free camping and RV facilities are available for Fri. night at site. Coffee and doughnuts in the morning, smoked Tri-tip Barbeque at noon. Free flea market, door prizes. Tailgate "showrooms" OK. Dealers welcome. Talk-in: 146.94 MHz (W6TO). For info: Pat, W6YEP, 559/222-3105.

COLORADO

Pikes Peak Radio Amateur Association Hamfest 01 May, 8 a.m.-2 p.m. at Lewis-Palmer High School (1300 Higby Rd., Monument, CO) Admission: $4 (17 and younger FREE). Tables: $12 first table, $10 each additional table. Talk-in: 146.97 (-) and 146.52 simplex. For info: Bob Ryals, KIØGF, 719/265-9950. Table reservations: Dennis Major, NØABC, 719/535-1160.

FLORIDA

St. Petersburg ARC's Lake Maggiore Swap Meet/Tailgate 02 May, 8 a.m.-1 p.m. at Lake Maggiore Park (9th st. & 38th Ave. S.) FREE admission. For info: Gerald Turner, N2MNC, 10132 64th St. N., Pinellas Park, FL 33783-3040. Phone 727/548-7474. Email: n2mnc@arrl.net or gdturner@earthlink.net.

ILLINOIS

Kishwaukee ARC DEKALB Hamfest 02 May, 8 a.m.-1 p.m. Vendor set-up 6 a.m. Free tailgating. Talk-in: 146.73 (-), Simplex 146.52. For info: Bob Yurs, W9ICU, 815/895-3219. Email: w9icu@tbcnet.com. Website: http://tbcnet.com/~jleonard/hamfest.htm.

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Moultrie Amateur Radio Klub annual Hamfest, 25 April at Moultrie/Douglas County fairgrounds, off of Route 133 behind the high school. Open 8 a.m. - 1 p.m. Adm. $5, under 14 free. Limited indoor space with tables. Tables $10 in advance. Hourly forums. For information call 217/543-2178 (day) or 217/873-5287 (eve).

LOUISIANA

Baton Rouge ARC Hamfest/Computer Show 30 Apr, and 1 May, 5-9 p.m. Fri. and 8 a.m.-4 p.m. Sat. Admission: $4 advanced, $5 at door. Door Prizes, and VE testing. For info: Herb Ramey, W5LSU, P.O. Box 68, Greenwell Spga., LA 70739. Phone: 225/654-6087 or 800/256-FEST. Fax: 225/654-5730. Email: w5gix@aol.com. Website: www.brarc.org.

MARYLAND

Antietam Radio Association Great Hagerstown Hamfest/Computer Show 02 May, from 8 a.m.-3 p.m. at Hagerstown Community College. Admission: $5 (kids Free). Tables: $15. Tailgating: $5. Door prizes, VE testing, and food . Talk-in: 147.090 (+) . For info: Tina Jones, Chairman, KB8ZQM, 304/728-7769. Fax: 304/728-3024. Email: kb8zqm@intrepid.net. Website: www.erols.com/rjlong61/ara.

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Maryland FM Association Hamfest 30 May, 8 a.m.-2:30 p.m. at Howard County Fairgrounds. Adm. $5. Tables: $20 advanced, $25 at door. Tailgate: $5. Talk-in: 146.76, 224.76, 444.00. For info: Craig, WA3TID, P.O. Box 19, Annapolis Junction, MD 20701, 410/987-6042.

MASSACHUSETTS

MIT Radio Society and **MIT Electronics Research Society** Flea Market 16 May, 9 a.m.-2 p.m. Albany and Main St, Cambridge, MA. Admission: $4. Tailgating: $10 at door, $9 advanced. Set-up: 7 a.m. Talk-in 146.52/ 449.725. For info: 617/253-3776. Advanced reservations mail to W1GSL, P.O. Box 397082 MIT BR., Cambridge, MA 02139-7082.

MICHIGAN

Wexaukee ARC Amateur Radio and Computer Swapmeet 01 May, 8

Hamfests — May

a.m.-1 p.m. at Cadillac Middle School. Admission: $5. Tables: $6, set-up 6 a.m. Prize drawings, refreshments and VE testing. Talk-in 146.98 repeater. For more info contact: Dan, KE8KU, Wexaukee ARC, P.O. Box 163, Cadillac, MI 49601, 616/775-0998. Email: ke8kudan@juno.com.

NEW HAMPSHIRE

Interstate Repeater Society ARC's Ham Radio Flea Market 22 May, 8 a.m.-1 p.m at Londonderry Lions Club, Mammoth Rd.(RT 128). Admission: $2. Tables: $10. For info: Paul, 603/432-1538, Email: k1llx@juno.com.

NEW YORK

Metro 70cm Network Electronic Fleamarket 02 May, 9 a.m.-3 p.m. at Lincoln H.S. Kneeland Ave, Yorkers, NY. Admission: $6. (kids w/ adult FREE). Free coffee, Refreshments for sale, Door Prizes and new/used radios, computers and stereos. For info: Otto J. Supliski, 969-1053.

OHIO

Athens County ARA annual Hamfest 25 April, 8 a.m. - 3 p.m. at the City Recreation Center. East St. exit on Route 33 or 50 and look for signs Adm. $5, Indoor tables $8 in advance, $10 at the door. Outdoor paved space for others. Talk-in 145.15(-). For reservations: John Cornwell, NC8V, 15100 E. Scatter Ridge Rd., Athens, OH 45701. Phone: 740/593-6474. For general info: Drew McDaniel, W8MHV, 61 Briarwood Dr. Athens, OH 45701. Phone 740/592-2106

PENNSYLVANIA

Warminster ARC Hamfest 02 May, 7 a.m., at Middletown Grange fairgrounds (Penns Park Rd., Wrightstown, PA) Admission: $6, wives and kids Free. Tables: $15. Tailgating: $10. Set-up 6 a.m. VE testing and door prizes. Talk-in: 147.69/09 and 146.52 simplex. For info: John D'Onofrio, P.O. Box 3211, Warminster, PA 18974; 215/675-9165.

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Washington Amateur Communications (WACOM) Hamfest, 02 May at Washington County Fairgrounds, Washington, PA. Easy access from Interstate 70 and 79. Setup 6 a.m., open 8 a.m. VE testing, walk-ins welcome. Talk-in 145.49 (-). For info: Jim Burtoft, KC3HW, at email: jbur@mlynk.com.

WISCONSIN

Ozaukee Radio Club Swapfest 01 May, 8 a.m.-1 p.m. at Circle-B Recreational Center (Highway 60 and County 1) Admission: $4. Tables: $5 for 4 ft. table. Set-up: 6:30 a.m. VE testing. Talk-in: 146.37/97 and 146.52. For info send SASE to: Joe Holly, ORC Swapfest Chairman, 1702 Holly Lane, Grafton, WI 53024. Phone: 414/377-2137 or Skip Douglas, 414/284-3271.

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Mancorad Radio Club Hamfest and Computer Swapfest 08 May, 8 a.m.-Noon at Manitowoc County Expo Ctr. Admission: $3 advanced, $4 at door. Tables: $6, $11 w/electricity. Set-up: Fri. 6-9 p.m., Sat. 6 a.m. Features: Fleamarket (radios, computers, electronics), VE exams, Refreshments, Camping (920/683-4378). Talk-in: 146.01/61. For more info send SASE to Mancorad RC, P.O. Box 204, Manitowoc, WI 54221-0204 or call Red, 920/684-3733 or Fred 920/682-9312.

WYOMING

ARRL State Hamfest 29-30 May, 8 a.m. at Radison(Casper Wyoming) Admission: $7 advanced, $10 at door. Tables: $5. Features: VE exams, seminars, door prizes and an evening banquet ($15). For info: Dave Riegert K7YE, P.O. Box 2025, Mills, WY 82644; 307/237-9112.

PSK31 Award

As part of its 40th anniversary celebrations, BARTG, has announced the BARTG PSK31-40 Award. The award is available to amateurs and SWLs who can prove that they have worked or heard 40 DXCC® entities using only the PSK31 mode. No crossband or crossmode QSOs will be allowed, and no single-band endorsements are offered. Applicants should supply a list of verified QSLs that must indicate PSK31 as the mode. The award fee is $10 or 30 IRCs (no checks) to BARTG Awards Manager N. Roberts, G4KZZ, 13 Rosemore Close, Hunmanby, North Yorkshire, England YO14 0NB. — *G3URA/BARTG, ARRL Letter*

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

The New ClearSpeech Speaker

The ClearSpeech-Speaker from NCT Group, Inc. is a digital speaker that incorporates NCT's patented algorithm to clean background noise from incoming speech signals for the utmost in intelligibility. This breakthrough technology removes up to 95% of stationary or constant noise changes, yet continues to cancel the noise for consistent performance. The ClearSpeech-Speaker delivers excellent performance for CW, SSB and FM and eliminates heterodynes from AM stations. Plus it greatly improves receiver performance of older radios.

"ClearSpeech-Speaker is a breakthrough product for users of a wide variety of communications equipment," said Michael J. Parrella, President, NCT. "This speaker delivers unmatched intelligibility of communications because it cleans background noise and interference and allows only speech to come through. ClearSpeech-Speaker is great for use with mobile radios, fleet communication systems, marine and Ham radios and many other communication systems. It's perfect in situations where communication is critical and noise hampers intelligibility."

The cost of the ClearSpeech-Speaker is only $109.

For infomation or to order the product, call 800/278-3526. It can also be ordered online at www.nct-active.com

NCTI specializes in the utilization of sound and signal waves to reduce niose, improve signal-to-noise ratio and enhance sound quality. Visit their web site www.nct-active. com.

New lightning surge protector

If you have ever had a radio equipment damaged or destroyed by lightning surges, you know how depressing and expensive that can be. You're off the air until you can get the equipment repaired or buy another one. Our New LP-1 Lightning Surge Protector is designed to provide protection to Radio Transceivers and Receivers from lightning surges by placing a short across the transceiver's antenna terminal when the transceiver is turned off. The LP-1 consists of a normally closed relay mounted

in a metal box that shorts out the antenna when the transceiver is off. An SO-239 socket is mounted to a metal box and is connected to the normally closed relay contacts. An included SO-239 type "TEE" connects to the SO-239 Socket. The antenna connects to one side of the TEE and a 3 foot RG-58 cable connectors from the other side of the TEE to the transceiver's antenna jack. An RCA type phono jack is mounted to the box and a patch cord is included to connect to a 12 volt source.

An RCA type phono jack with 12 volts is available on the rear of many transceivers which, if used with the LP-1, will automatically place a short across the antenna when the transceiver is turned OFF. When the transceiver is turned ON the antenna short is removed allowing normal operation. The LP-1 has been tested for use on HF, 6 and 2 Meters.

The LP-1 comes complete with cables for a quick plug-in installation. The cost is only $39.95 + $4 shipping.

PK-232/DSP multi-mode data controller

Timewave Technology Inc., announces the new PK-232/DSP multi-mode data controller. This new TNC will be available at the Dayton Hamfest. The PK-232MBX is the most popular multi-mode data controller in the world with over 100,000 in service. Timewave has combined their state-of-the-art DSP Brickwall filter design with the flexibility and reliability of the PK-232MBX in the new PK-232/DSP.

The PK-232 was designed in 1985 before the advent of affordable DSP technology. The filters in today's analog TNC's were state-of-the-art in 1985, but pale beside the performance of Timewave Technology's DSP filters.

The PK-232/DSP filters have tighter bandwidth and steeper skirts for improved noise and QRM rejection. This new DSP design allows a wider selection of filters, so the filter better matches the mode. Moving the DSP functions into the controller permits precise control allowing dynamic switching between 100/200-baud filters in the PACTOR mode.

The new PK-232/DSP allows you to continue to use your existing software. The PK-232/DSP in combination with Timewave's new WIN 95/98NT Terminal software, PK TERM 99 is Y2K compliant.

The PK-232/DSP supports all PK-232 modes — PACTOR, VHF/HF Packet, AMTOR/SITOR, BAUDOT, ASCII, Morse, TDM, NAVTEXT and SIAM. A mailbox function is provided for Packet, AMTOR and PACTOR.

The PK-232/DSP is now available by mail order. Retail price is $450.00. For more information write to: Timewave Technology Inc., 58 Plato Blvd E. St. Paul, MN 55107 or call them at 651/222-4858, Fax 651/222-4861 Their email address is: sales@timewave.com. Their website is located at: www.timewave.com.

New DTMF decoder

The DTMF-1 is a Serial Computer Interface that allows received DTMF or Touch Tones to be displayed on a computer. It also has Transistor Drivers for controlling two external relays (not included) or for controlling the Push to Talk (PTT) line of a Transceiver's Microphone Jack. The Relays or PTT lines can be individually selected and stay latched ON or OFF until the assigned Control Tone is received.

The DTMF-1 is built into a Gender Changer Plastic Case. A cable with an RCA phono plug is provided for 12 Volt at 50 ma. A cable with a 1/8" phone plug is for audio in and two RCA phono jacks are provided for PTT or Relay control.

The plug-in installation involves first connecting to a 25 Pin COM Port on the computer. This is usually COM2. Next connect power and audio. When the included software is loaded it's easy to run any of the following applications:

1. Control Devices with external relays
2. Add DTMF squelch to any radio with an external relay and speaker.
3. Use your VHF or UHF Handheld as a Cordless Mike for your HF Transceiver. Walk around the house or drive your car while operating your HF base Rig.
4. Remote Base or Repeater Controller using the relay drivers.
5. Display DTMF Tones from a Repeater on the Computer's screen with no extra hardware required.
6. Display numbers dialed on your telephone with a telephone interface.

DOS Software is included which can be run from DOS or Windows. When used with Windows 95 or 98 the DTMF-1 Decoder remains active while other tasks are being performed. DTMF-1 costs only $89.95 + $4 Shipping

Both of these products are available from: Dynamic Electronics Inc. P. O. Box 896 Hartselle, AL 35640. Phone: 256/773-2758 FAX: 256/773-7295 http://www.hsv.tis.net/~dei or e-mail: dei@whnt19.com.

New ground plane for 10 Meters

The Lakeview Co., Inc, of Anderson, SC has just released a new addition to its fine line of antennas and antenna products. Catalog nr. GP-28 is a quarter-wave ground plane antenna for 28 MHz. It's also tunable to nearby frequencies. It's manufactured with our famous "Hamstick" technology of fiberglass and aluminum materials. It comes with all hardware needed for a mast mount. It's slightly less than 10 feet tall with a power rating of 600 watts, and a 2-1 bandwidth of 1 MHz.

With the sunspot cycle becoming more favorable for 10 Meters, this antenna is a great addition to our product line at only $54.95, plus shipping and handling. This new antenna is available from your dealer or direct from Lakeview Co., Inc., 3621-9 Whitehall Rd. Anderson, SC 29626. Phone 864/226-6990 or email: hamstick@hamstick.com.

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 registration, etc.) and the name and telephone number of a person to contact for further information. Examinees should bring their original license (along with a photo copy), two forms of identification (at least one should be a photo), and required fee.

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

State	City	Contact	Notes
Alabama			
5/04/99	Mobile	David, WA4VAC 205/649-5229	p/r pref
Arizona			
5/08/99	Tucson	Joe, K7OPX 520/886-7217	w/i only
California			
5/08/99	Carisbad	Rusty, AA6OM 760/747-5872	p/r pref.
5/27/99	Colton	Harold, AB6RN 909/825-7136 days or 909/685-6073 eves	p/r pref.
5/1/99	Culver City	Clive, AA6TZ 310/827-2538	w/i pref.
5/06/99	Fremont	Dennis, K6DF 510/791-0914	w/i only
5/08/99	Harbor City	Elvin, N6DYZ 310/325-2965	p/r pref.
5/22/99	Lake Isabella	Ham Radio HOTLINE 760/379-2947	p/r pref.
5/15/99	Long Beach	Don, 562/420-9480	p/r pref.
5/29/99	Pomona	Carl, WJ6N 909/356-1919	p/r
5/12/99	Santa Ana	Red Cross 714/835-5381 x140	w/i
5/15/99	Stockton	Mark, W6DKI 209/465-7496	w/i
5/08/99	Sunnyvale	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
Colorado			
All Colorado	Exam recording 303/360-7293		
5/10/99	Boulder	Rich, N0SH, 303/380-6540	w/i pref
5/22/99	Longmont	Eaarle E. Cate, NØISB 303/776-9158	p/r pref.
Connecticut			
5/08/99	Newington	Dan, K3UFG 860/289-3379	w/i pref.
Florida			
Ft. Myers	Leonard, KC4GOA 941/694-2505		w/i
5/18/99	Middletown	Paul Lux, K1PL 860/635-1742	p/r pref.
Idaho			
5/08/99	Boise	Lem, W7JMH 208/343-9153	w/i pref.
5/26/99	Grangeville	Larry AB7GY 208/983-2163	w/i pref.
Illinois			
Anyday! Anytime!		Burr Ridge Radio Club Deni, W9DS 630/986-0061	Arbonne p/r
5/19/99	Chicago	Mike, KG9C 773/781-7171	w/i ok
5/08/99	Oak Forest	David, NF9N 708/448-0580	p/r pref.
5/15/99	Rockford	Rusty, WB9QYV 815/968-0080	w/i pref
Massachusetts			
5/15/99	Melrose	Scott, WB1F 617/665-7654	w/i ok
Michigan			
Houghton	George, W8FWG, 906/337-2542		p/r pref.
New Jersey			
5/08/99	Cranford	24-hour hotline 973/377-4790	w/i pref.
New York			
5/11/99	Bethpage	Bob, W2ILP 516/499-2214	p/r pref.
5/02/99	Yonkers	Emily, AC2V 914/237-5589	w/i ok
North Carolina			
tba	Brevard	Harrison, KO4RV 704/877-4757 or 704/883-9096	
Ohio			
5/01/99	Cincinnati	Herb, WA8PBW 513/891-7556	w/i pref
Oregon			
Tuesdays	Bend	Bill, K7ZM 541/389-6258	p/r only
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5/12/99	McMinnville	AB7OE, 503/864-3291	p/r pref.
5/15/99	Newport	W7BFX, 541/563-3866	p/r
5/9,23/99	Tigard	KS0F, 503/626-7399	p/r pref.
Pennsylvania			
5/01/99	Erie	Norma, W3CG 814/665-9124	w/i only
5/06/99	Philadelphia	Dusty, ND3Q 215/879-0505, 215/482-0386, 215/448-1139(tape)	w/i ok
5/17/99	Telford	Joe, W3PNL 215/723-6697	p/r pref
Puerto Rico			
5/29/99	San Juan	Victor, KP4PQ 787/789-4998	w/i
Rhode Island			
5/13/99	Providence	Judy, KC1RI 401/231-9156; Al, NN1U 401/454-6848	w/i pref.
South Carolina			
5/15/99	Charleston	Ed, KE2D 843/871-4368	w/i pref.
Texas			
5/13/99	Euless	Marv, N5MK 972/513-9500	p/r
5/11/99	Houston	Harold, ND5F 713/464-9044	p/r pref.
Virginia			
5/06/99	Chesapeake	Pat, AF4FR 421-9598	p/r

Restructuring the FCC

Louisiana Republican Billy Tauzin says that the FCC needs to be revamped to have a competitive rather than regulatory mission. Tauzen is the chairman of the House Commerce on Telecommunications chairman. On 12 March he told reporters that he hopes to have a bill drafted by June detailing the changes in the FCC's mission and structure that Congress would like to see implemented.

Tauzin says that he doesn't have many specifics and is open to suggestions. He and others Republicans in Congress have criticized the FCC for acting too regulatory,. This is particularly true in areas such as the implementation of a 1996 law freeing cable, local and long-distance companies to get into each other's business.

FCC Chairman Bill Kennard says that he is very interested in working with congressional lawmakers to help the agency run effectively into the 21st century. Kennard says that he will present an upcoming congressional Telecommunications hearing with a blueprint for restructuring the agency that would be open to public comment. He says that by the fall he would like to have a final plan in place.

What impact such a restructuring might have on Amateur Radio is hard to say, but it would definitely make any spectrum above 50 Mhz, and possibly some in the shortwave region more vulnerable to reallocation and auction. This may well be the main reason that the ARRL is pressing so hard for the passage of its Amateur Radio Spectrum Protection Act as a way of insuring that hams have a place to operate no matter what happens to the mission and the structure of the FCC.

FCC Chairman Kennard prefers a two-tiered approach to restructuring the Commission. He says that part of the plan could be implemented by the FCC itself but requires Congressional action first. It's not clear that any measure to overhaul the FCC could pass Congress and be signed into law. — *Newsline*

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AUTO-CALL MAGAZINE, official journal of the Foundation For Amateur Radio, a federation of over 80 clubs in the greater Baltimore/Washington DC area. Great coverage of FCC, ARRL, VEC, Public Service and club activities in the area. A must for those even passing through the area. For a sample copy write FOUNDATION FOR AMATEUR RADIO, P.O. Box 7612, Falls Church, VA 22046-7612. F00

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More on Connecticut coordination

More information on the attempt by Mark Casey, K1MAP, to restore formal voluntary coordination to the state of Connecticut. According to information provided over the VHF reflector, Casey has assembled a database for Connecticut and Western Massachusetts Repeaters on bands ranging from 29 to 1296 MHz. He wants to develop a database to pass on to new qualified coordinators for the various bands.

Casey says that the prospects for repeater coordination returning to Connecticut look pretty good. He adds that it is important that Connecticut have a single point of contact for repeater coordination. He says this will protect current repeaters and assure new repeaters a fair chance with the least amount of interference. Casey adds that with the disbanding of the Tri - State Amateur Repeater Council, that Connecticut has a repeater coordination vacuum that needs to be filled before any problems arise. — *VHF Reflector, Newsline*

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Blizzard sets priorities

Don Johnson, W6AAQ

For a couple of years the mid 50s the U.S. Navy had our family of Hams assigned to a Naval Aircraft Patrol Squadron in Maine. Choice duty station, however, this was during the "cold-war" and we were kept very busy flying long patrols in the extreme northern latitudes.

By that time we had been a very active Radio Amateur for 20 years, an unbreakable habit. It was always possible to squeeze in air-time. Soon we were on the rosters of several local 75-meter nets, checking in from home, mobile or aeronautical mobile. One of the local net members was "Ziggy," W6ZIG, (one of the original 3995 California SF Bay HF Mobileers) who had returned to his home state of Maine after retirement.

Ziggy and his family had settled on 40 acres way out in the boonies about a half-hour drive from our home. He belonged to the Barnyard Net which had daily early morning check-ins. When scheduling permitted, our families would often spend weekends together to reminisce about our California Mobileering days. Elbows were worn threadbare sliding on the chow table during those visits.

During the period of the shortest possible days, a severe blizzard hit the area. Within a few days out in the countryside practically everything came to a standstill and the storm just kept going on and on. At the Naval Air Station, with the crew working around the clock, it was possible to continue normal flight schedules with our fixed wing aircraft and some whirly-birds.

The morning 75 Barnyard Net became an around-the-clock net. Practically everyone had auxiliary power so keeping in touch for health and welfare traffic was assured. The storm had started on a Sunday and as the week wore on an assortment of minor emergencies were all adequately resolved.

By Thursday Ziggy was voicing concern. The county snowplows were stalled and buried in ten-foot-plus drifts, so even if a car could get out of the yard it couldn't go anywhere. Ziggy's report was that they were totally out of food — they were down to going out into the woods picking "fiddle-heads" for chow— the flour, bean, and potato lockers were bare. We asked if he could possibly hold out until early Saturday morning. The report was that the storm would pass during Friday but, of course, that didn't mean any of the roads would be open, but it would be simple to bring them in supplies via helicopter. Arrangements were made to set up a local training/rescue flight — weather permitting.

Sure enough, Saturday morning presented a clear sky with no wind. The crew rolled out the bird for pre-flight check; all set to go. Rations were loaded. The PIO had a local reporter suited up — the Navy could always use a little PR.

Only one item left on the checklist — get on the Barnyard frequency to ask Ziggy if there were any additional supplies to add to his original request.

On The Air: "Ziggy we are ready to go and will land in your bean field within 30 minutes."

Ziggy's Reply: "Oh, don't bother. Glenice and I ran out of cigarettes and we waded through the snow and got to town yesterday."

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