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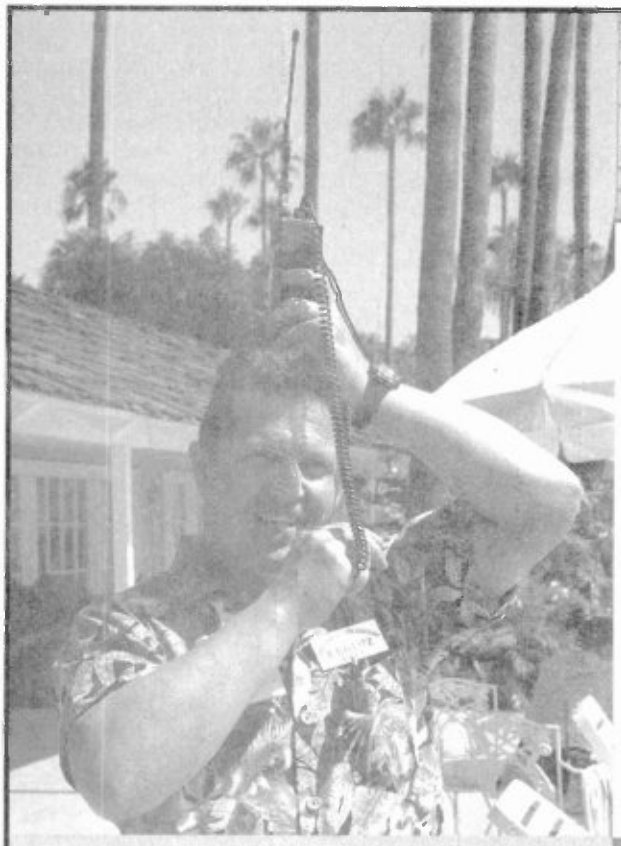
WORLDRADIO

Year 28, Issue 4 www.wr6wr.com October 1998 • $1.50



1998 ARRL Southwestern Division Convention
San Diego, California
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SPECIAL EVENT STATION

W6P

NEWSFRONT

Worldradio

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

ARRL President on restructuring

The President of the American Radio Relay League defends and explains the Leagues proposal to restructure Amateur Radio. In a letter that he is sending out in answer to queries from concerned Hams, Rod Stafford, W6ROD, says that Hams have been slipping farther and farther behind the technology power curve and that others outside of Amateur Radio are taking note of that.

Stafford points to the primary modes used by Hams. He notes that SSB, CW and FM have each been around for more than half a century. Stafford says that we have to change people's perception of Amateur Radio being a pursuit involving seventy-year-old communications techniques.

Regarding the Morse code, Stafford says there is no move on the part of the ARRL to eliminate it. Rather the League wants to put it into proper perspective as we move into the new century. He also believes that the Morse will be around for a very long time. But the ARRL leader also says that as an examination element CW carries much more weight than it should at the present time.

Stafford also says Amateur Radio sits on some very valuable radio real estate that we essentially use for hobby purposes. He says that in recent years it has become very difficult to justify our retaining and defending our spectrum from commercial interests. These are companies who make very good arguments as to why they shouldn't be permitted to use our spectrum for endeavors that will generate jobs and utilize cutting edge communications technology. These organizations, says Stafford, are willing to put the spectrum to use for commercial rather than hobby purposes.

Stafford also cites some of the same alarming slow growth statistics we have presented on *Newsline* several times in the past. He says one need only look at the numbers to realize the average age of most active Hams is up near 60. Also, there is an under two percent annual growth rate in the service. The ARRL leader says the argument that Amateur Radio needs to retain spectrum for growth is unconvincing to the FCC and other interests who take the time to read the numbers.

Rod Stafford says taking these factors into consideration, that Amateur Radio is now viewed as a group of aging radio hobbyists. We are also viewed as hobbyists who use less than state-of-the-art communications technology. This makes us vulnerable to spectrum challenges form other sectors of the communications industry.

President Stafford says the changes being proposed by the ARRL are not a complete solution to any of these problems but that they are a start. He says Hams still have to make an effort to move to more advanced communication technology and to do so quickly. — *W6ROD, Newsline*

Mexico may sell spectrum

Mexico may be contemplating the reallocation of spectrum adjacent to the 2 Meter and 70 centimeter Amateur Radio bands and then selling the spectrum the highest bidders.

According to Bob Gonsett's CGC Communicator, Mexico will be auctioning 148-174 MHz and 450-470 MHz and other key frequency bands during 1998. CGC says it also appears as if Mexico had planned to auction off the 440 to 450 MHz amateur band and the spectrum from 485 to 495 MHz during 1997. The latter spectrum overlays TV Channels 16, 17 and 18 in whole or in part.

All of this and more can be found at the following Mexican government web site at www.cft.gob.mx/html/f_submain2.html.

One word of caution here: unless you read Spanish, go to the bottom right portion of the page and click on the button labeled "English version." — *CGC Communicator, Newsline*

Micro tube

For those who never quite managed to accept transistor theory, New Zealand's Ian Gill ZL3TGK reports that a microscopic electron tube has successfully been constructed by a researcher in the Netherlands.

According to a brief article in the British publication *Elektor Electronics,* the wizard responsible is Jens Foerster. His triode measures less than 5 micro meters across and it is etched in silicon using the same process used to produce integrated circuits. The tube uses a pin-point field emitter rather than a heater to generate its electron flow. — *Ian Gill, ZL3TGK, Newsline*

Korean Special Event calls

The Korea Amateur Radio League says that Korean Hams will help commemorate the 50th anniversary of the Republic of Korea. During the celebration, amateur stations in Korea will be permitted to substitute the number 5Ø for their usual call sign number. For example, HL1AAA would be permitted to operate as HL5ØAAA. — *KARL, Newsline*

Former ARRL President on restructuring

Former ARRL President George Wilson, W4OYI, is not happy that the League preempted the FCC by issuing its own Amateur Radio restructuring proposal before the FCC had a chance to make its own ideas public.The former ARRL leader says

that there was no compelling reason for the League to get out in front of FCC on this issue.

Wilson also says that the ARRL was presented with an opportunity to at least try to undo some of the harm done to Ham radio and to the League by incentive licensing. This W4OYI says, was not even paid lip service. — *Newsline*

FCC to accept paper comments

The FCC says it will accept comments on paper without an accompanying word processor file in its NPRM to streamline the Amateur Service Rules. When it issued the proposal, the FCC appeared to require comments filed on paper also be accompanied by a word processing file on a computer disk. Now, the FCC's Mauriece DuPont is quoted in the *ARRL Letter* as saying that a file on disk is not a strict requirement.

DuPont says that the FCC will accept comments on paper but there is one caveat. Diskless commenters should include a footnote stating, and we quote, "My comments are being filed on paper only without a diskette, since it is not feasible for me to include a diskette." — *FCC, ARRL, Newsline*

Guatemalan Hams seek public support

The Amateur Radio Club of Guatemala (Club de Radioaficionados de Guatemala, CRAG) has issued "a call to the public conscience" as part of its effort to get the Guatemalan government to restore access to UHF and SHF bands to Hams. In 1996, the Guatemalan Congress eliminated 40% of the Amateur Radio frequencies including the formerly shared 430 to 440 MHz band and SHF bands. The spectrum has been sold for commercial use.

Reports from that Central American nation indicate that commercial land mobile stations are now being licensed in the 70-cm band. CRAG and amateur satellite interests elsewhere in the world worry that the commercial stations and existing amateur satellite operations will not be able to comfortably co-exist in the band. Amateur satellites operate between 435 and 438 MHz.

According to CRAG, the Guatemalan government has so far ignored its objections that the frequencies should be reserved for Ham use in accordance with ITU radio regulations. CRAG already has presented a formal request to the Guatemalan Ministry of Communications to restore 430 to 440 MHz to Amateur Radio use but says the government has not responded to its pleas.

In a statement, CRAG expressed concerns that the commercial activity at 70 cm would cause interference to neighboring countries. "A commercial communication service is incompatible with the Amateur Radio Service," CRAG said. CRAG also worried that the commercial activity would strain relations with other countries, and that Guatemalan Hams would not be able to take part in future space and satellite communication, including the International Space Station.

Beyond that, CRAG said, eliminating the 70-cm band in Guatemala "also discards its beneficial use for thousands of Guatemalans in case of natural disasters and emergencies."

Further north, Mexican authorities last year auctioned spectrum at 440 to 450 MHz and 485 to 495 MHz — currently all or part of TV channels 16, 17 and 18, for "fixed or mobile wireless services." Gina Dalma of the Mexican Federal Telecommunications Commission (COFETEL) says five fixed-wireless service licenses were offered in those bands; another four (for what she called "national footprint") already are held by Iusacell (Bell Atlantic).

COFETEL's 1998 auction plan indicates intentions to auction 148-174 MHz and 450-470 MHz for "private communication systems" on the state level. — *Newsline*

FCC blasted for airwave giveaway

The FCC has been blasted in congress over the way it has handled the dispersal of new and reassigned spectrum. According to Mary Shea writing in the *CGC Communicator*, the Chairman of the House Commerce Committee said the FCC appeared to have "manufactured" a national security need to justify its allocation of a valuable airwave spectrum to a private company without a public proceeding. Details on this story are available at a special website at www.zdnet.com/zdnn/stories/ zdnn_smgraph_display/0,3441, 2124765,00.html — *Newsline*

WORLDRADIO

October 1998 Year 28, Issue 4

News & Features

Departments

Next month's columns will include Traffic, RFI & You, QCWA, Old-time Radio, Amateur Satellite, County Hunter and FM, Repeaters & VHF.

Worldradio

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October 1998 Year 28, Issue 4

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

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

Periodicals postage paid at Sacramento, CA & additional offices.

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

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Publisher's Microphone

A ***Worldradio*** Lifetime Subscriber has just been made Division Manager at his company. To help celebrate, he invites, as his guest, 30 of his closest friends and their wives to his 30th birthday party at a fancy French restaurant.

As often is the case the waiter acts quite haughty as if he is doing the party a big favor by letting them dine there.

Our intrepid WR LS, to put the waiter in his place, to pay the restaurant whips out an American Express Platinum Card and signs the bill with a Mont Blanc pen. And then, and then, to really deliver the coup de grace he reaches into his alligator attaché case, pulls out the latest copy of ***Worldradio*** and positions it so the waiter can see on the label "LIFE!"

•

The latest to become ***Worldradio*** SuperBoosters are:

- **William Bickley, W2ET Princeton Junction, NJ**
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- **David Halliburton, WA3ZOR Monrovia, MD**
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- **Randy Kick, K5BUD Sapulpa, OK**
- **Royce Martin, N7DBC Pocatello, ID**
- **Garry Labb, KM6VC Huntington Beach, CA**
- **John Capron, W6SKM Newark, CA**

•

There seems to be a move, in several quarters, to make the entry into Amateur Radio "easier."

Well, no one ever said he thought he would join the Marines because he heard it would be easy.

No one ever went to law school because they heard that you didn't have to study very hard. No one became a nurse because it was nice clean work.

Pilot training isn't "easy." Airborne or Ranger training isn't "easy." A Ph.D. in Physics isn't "easy." Everything in life that gets respect earns that respect because it is difficult. No one ever went into police work or firefighting because it was "easy".

Some say that this is the way the rest of the world is going and use the Amateur Radio changes in Europe as an example.

What other aspects of European countries should we also adopt? Five-dollar-a-gallon gasoline? World's highest suicide rate? World's highest alcoholism rate? World's highest traffic death rate? Not everything in Europe is a good example worth emulating. How about 70% income tax?

Then we hear that we need more Hams. What is never defined is: how many more? We need more: relative to what? Is there a reference or standard that we should be meeting?

Can we agree that a country should have as many Hams as for example: physicians? Is that an indication of the affluence and education of a country?

Make it easier, many say. Recently a business magazine interviewed the Human Resources Director of a giant corporation. The reporter queried that the company was requiring a college degree for positions that didn't seem all that demanding. The executive replied that he totally agreed but that was what they had to do in order to get the high school graduate of 20 years ago!

Is there anyone who is proud of what has happened? Is there anyone who thinks that it's just great that in the international math and science competitions, U.S. high schoolers come in ranked 25th out of a field of 30 countries? (All of which spend less on education per pupil as a percentage of GNP than the U. S. does.)

There is an expression in track, "Raise the bar" which means, I can do better than I did before. Another expression we hear a lot these days is "dumbing down." Which is really better?

Many say we "have to get the young people back in." The truth of the matter is that young people participation in photography, tennis, model railroads and practically everything else is down also. With rare exception, walking around in the mall is preferable to making an effort, and perish the thought: studying.

Possibly instead of trying to drag into Amateur Radio all the lazy louts we should adopt the slogan of the U.S. Marine Corps. "The few, the proud"

—Armond, N6WR

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The evolution of the "Battle Creek Special"

(a low-band DXpedition antenna for the "true believer")

CHARLES DEWEY, JR., WØCD

It all started when George Taft, W8UVZ, Wayne Roe, W8SEY, George Guerin, K8GG and I (WØCD) decided to operate the 1990 *CQ* 160 CW contest from Grenada (J3) and wanted a low-band antenna more efficient than the usual short base-loaded vertical or low-slung dipole.

I had some experience with a 48' "MINOOKA SPECIAL" built by Barry Boothe, W9UCW, for Bob Walsh, WA8MOA, to take on his trips to Mellish Reef and Heard Island several years ago. My experience with this antenna was because whenever it got damaged, I was the one who repaired or rebuilt it. The recurring problem was the material used, one inch aluminum conduit, which was too soft to be pre-assembled and raised in one piece. It had to be "bootstrapped" up one four foot section at a time, quite a labor intensive juggling act under the best of conditions and practically impossible in high winds.

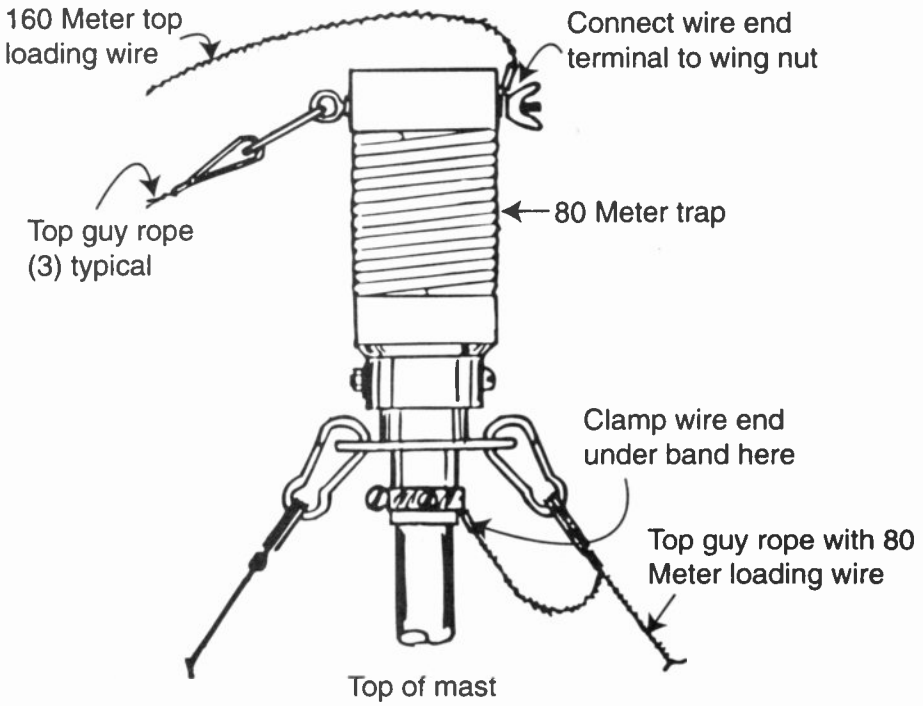
To overcome this problem I decided to use high strength 6061-T6 aircraft aluminum of large enough diameters to allow pre-assembly and "walk-up" erection not requiring more than two people.

A 56' version was built, pre-tested and packaged in a plywood shipping case (74" x 9-1/2" x 9-1/2") which also contained 2000 feet of radials, guy lines, guy stakes, etc., making a complete system in one 69 pound box, UPS and air freight shippable.

Then along came "Murphy's Law"!! We had been asked to lend the antenna to the 3Y5X Bouvet DXpedition and decided to give it a full smoke test with 1+KW key-down for five minutes on 40, 80 and 160. At least that was the plan until "MURPHY" took over. At 90 seconds with everything else going well, the "MINOOKA" coil melted due to the high losses inherent in such a low "Q," poor form-factor coil. (Read the excellent articles by Charles Michaels, W7XC, in March and April 1990 *QST* for more on this.)

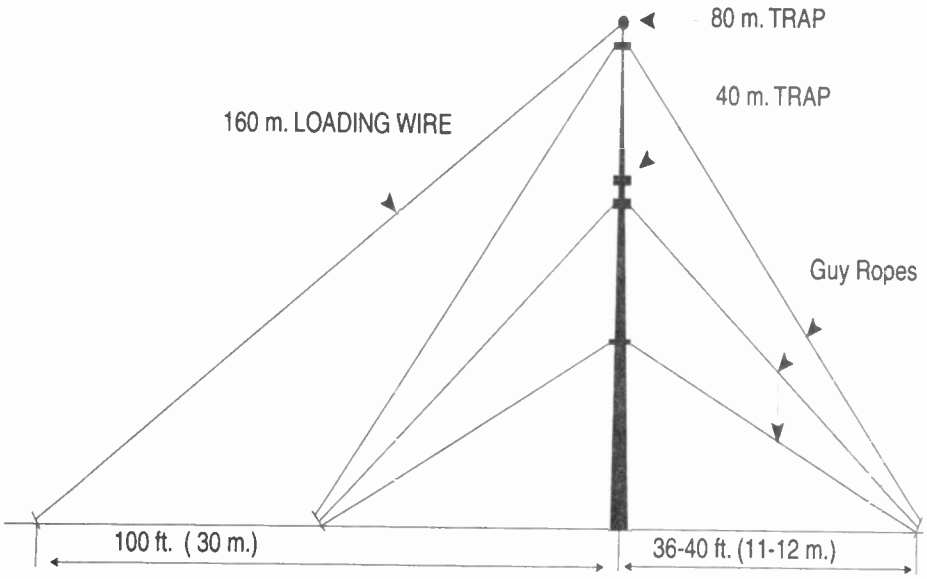
Anyway, here we were two weeks before our commitment to ship to the Bouvet group and it was "back to the drawing board"! This is where the "TRAVELING MINOOKA" turned into the "BATTLE CREEK SPECIAL."

While a replacement for the ruined "MINOOKA" coil would have probably survived any reasonable duty factor operation, we decided to go for better bandwidth and higher efficiency on 160 by using a trap for 80 Meters at the top of the vertical section in place of the "MINOOKA" coil and by extending a sloping top loading wire for 160 Meter resonance. We had already put in a 40-meter trap at the 32 foot point to get the base impedance down on that band and the trap stood up well under the first 1+KW smoke tests.



The redesigned antenna, now named the "BATTLE CREEK SPECIAL," survived its final field trial (yes, we did put a brick on the Alpha 46, exciter's key for the full five minutes) and was shipped by air and sea to Bouvet and back without damage. It performed exceedingly well at 3Y5X on 40, 80 and 160. Kaare Pedersen, LA2GV also had an all-band "Butternut" for comparison and reported the "BATTLE CREEK SPECIAL" was consistently two "S" units better on all three bands.

By the way, we wound up rigging a trapped inverted L antenna from



Battle Creek Special — General elevation view.

a coconut palm tree for 160 and 80 Meter operation from J37XT in and around the 1990 CQ 160 CW Contest. After all, a loud 3Y5X is far better than a louder J37XT if you are a "true believer."

Redesign note of September 1993 by WØCD:

Experience has shown coaxial traps (*Ham Radio*, October 1981 & *QST* December 1984) are broad band but lossy, compared to standard L-C traps. We have converted all our Battle Creek Specials to standard L-C traps made from #10 enameled copper wire on Schedule 80 CPVC forms. The capacity across the coil is provided by the necessary length RG-213-U coaxial cable, wired across the coil, placed inside the aluminum tubing vertical sections. These redesigned traps run much cooler than the coaxial traps and are highly recommended for high power, high temperature and RTTY service.

The Battle Creek Special (MK II-A) — A low-band antenna for DXpeditions

GENERAL

This antenna is designed for 40, 80 and 160 Meters to complement a tri-band beam normally taken on DXpeditions for 10, 15 and 20 Meters, so six bands can be worked with only two antennas.

CONSTRUCTION

The material used is high strength aluminum tubing, 6061-T6 alloy, in sizes ranging from 2 inches to 1 inch (5 to 2.5 cm) OD. Guy lines are 3/32 inch (2.4 mm) dacron double braided rope with a rating of 260 pounds (118 Rg) breaking strength. Wind survival rating is 100 MPH (160 KPH) assuming proper guy rope anchors.

CONFIGURATION

The antenna is a vertical element 48 feet (15 Meters) high with traps for 40 and 80 Meter operation, with a top loading guy wire connected BELOW the 80 Meter trap to resonate the antenna on 80 Meters and a top loading wire connected ABOVE the 80 Meter trap for 160 Meter operation. It is guyed four ways at three levels so the side guy ropes act as a hinge allowing it to be "walked up" by one person.

NOTE: YIØCD 1/14/94

As stated above this antenna was designed for DXpedition work where there are few antenna attachments (trees, buildings etc.). IT IS NOT NECESSARILY THE BEST LOW-BAND ANTENNA FOR HOME STATION USE. For home station use we recommend shunt-feeding your beam tower with at least 60 65-130' radials. Or next best an inverted "L" with at least 60' vertical and an adequate radial system. Much less expensive and lots easier to construct.

E-mail: w4zc@clark.net

Restructuring Amateur Radio Service licenses

This month the hot news is the license restructuring proposal adopted by the ARRL Board at its July meeting, and subsequently sent to the FCC. Here is some background on other recent, related events which may help you better understand what's going on, and why.

Possible restructuring of licensing in the Amateur Radio Service has been been on the Agenda of the ARRL WRC-99 Planning Committee from its inception in 1996. During the ensuing period proposed restructuring has undergone much discussion and revision.

The 01 March 1998 issue of the *W5YI Report* highlighted several ongoing FCC actions pertinent to a biennial review of all of its regulations applicable to licensees to determine whether certain rules are no longer necessary. (The Telecommunications Act of 1996 requires such a review in every even-numbered year, with the objective of eliminating or modifying regulations that are overly burdensome or no longer serve the public interest. FCC Chairman Kennard announced in November 1997 that the FCC had begun the 1998 review, and this "is a key time for the Commission to take a serious top-to-bottom look at its rules.")

The FCC released a list of 31 proposed initiatives to be explored as part of the biennial review. One of these concerned the Amateur Service. The FCC said that it was looking toward streamlining Part 97 Amateur Radio Service Rules, and that it would seek comment on amending the FCC Rules to privatize further the administration of the Amateur Radio Services and simplify the licensing process.

Also in late 1997 the FCC took a step toward implementing its new Universal Licensing System (ULS). Ultimately, the ULS will give Hams and other licensees on-line access to make license updates and renewals, eliminating the need for hardcopy forms like the venerable Form 610. An FCC Public Notice said the ULS is aimed at combining the 11 different licensing systems the Bureau now uses, including Amateur Radio, into a single system.

The Annual Conference of VECs (Volunteer Examination Coordinators) took place at Gettysburg in early July 1998. VECs indicated an interest in learning more about the rumored restructuring of the Amateur Radio Service (e.g., reducing the number of license classes, and reducing code speed requirements). Answers to their questions were not comforting.

This background led to the decision by the ARRL Board to promptly publicize the League's proposals for restructuring, and to present them to the FCC (in a letter dated July 22) which said in part:

"It has come to the attention of the American Radio Relay League, Incorporated, the national association of Amateur Radio operators in the United States, that the Commission is presently considering a draft item pursuant to the 1998 Biennial Review process which relates to the Amateur Radio Service.

"The League's Board of Directors, which constitutes the most representative body of Amateur Radio operators in the country, has studied the amateur licensing structure for the past two and one-half years.

"The League wishes to present for your consideration a comprehensive restructuring proposal for Amateur

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 3 August1998.
For more information about the sequential call sign sytem, see Fact Sheet PR5000 #206-S or contact the FCC, 1270 Fairfield Road, Gettysburg, PA 17325-7245; e-mail: fccitd@fcc.gov.

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØHV	KIØNX	++	KCØDYE
1	AA1TY	KE1KE	++	KB1DCI
2	AB2FN	KG2OU	++	KC2DXK
3	AA3RJ	KF3BY	++	KB3CXK
4	AF4LD	KU4TV	++	KF4ZOT
5	AC5QY	KM5RZ	++	KD5EXT
6	AD6GD	KQ6XK	++	KF6SFS
7	AB7YR	KK7PA	++	KD7CKW
8	AB8DB	KI8GM	++	KC8KSH
9	AA9WJ	KG9OD	++	KB9TFG
N. Mariana Is.	NHØF	AHØBA	KHØHE	WHØABJ
Guam	++	AH2DH	KH2TQ	WH2ANX
Hawaii	AH7I	AH6PM	KH7JZ	WH6DEU
Amer. Samoa	AH8R	AH8AH	KH8DM	WH8ABF
Alaska	ALØM	AL7RE	KLØPT	WL7CUW
Virgin Is.	++	KP2CN	NP2KD	WP2AIJ
Puerto Rico	NP3Y	KP3BI	NP3XZ	WP4NNV

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

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Thank you!

Radio licensing. The purpose of presenting this to you now, by letter, is not to forestall or preclude the Amateur Radio Biennial Review item, but rather to complement the considerable work that we understand has already been performed by your Wireless Telecommunications Bureau staff. It is hoped that the instant proposal is timely in view of the draft now under consideration."

How this will all sort out is anyone's guess. Stay tuned.

ARRL asks LMCC to withdraw petition

The ARRL has called upon the Land Mobile Communications Council (LMCC) to withdraw its request for reallocation of segments of the 420 to 450 MHz band to the Private Mobile Radio Service (PMRS). Such a move would permit the FCC to focus its attention on portions of the LMCC petition that "might have more merit," Alternatively, the League asked that the FCC dismiss those portions of the LMCC petition dealing with the 420 to 450 MHz band as "plainly not deserving of further consideration."

The League said comments from Amateur Radio operators (who constituted the vast majority of those who filed in response to the LMCC petition) establish that the LMCC proposal for a PMRS allocation in the 70 cm band "was ill-conceived." Hams told the FCC the band is heavily used and vital to amateur public service activities. The League noted among other commenters "a complete absence of support" for the 420 to 450 MHz proposal in particular. Some commenters were altogether silent on the 420 to 450 MHz reallocation issue, while one LMCC member, the Association of Public Safety Communications Officials-International (APCO), opposed any reallocation in the band.

The League urged the FCC to pay close heed to the comments of the National Telecommunications and Information Administration. The NTIA said national security and other federal interests would preclude sharing on the band. Those comments, the League noted, were "clearly protective of its own use of the 420-450 MHz band, and that of the Amateur Service as well."

A complete copy of the League's reply comments is available on the ARRL Web page at www.arrl.org/news/bandthreat/RM-9267/arrl-reply.pdf. NNNN /EX

RAC requests 10 Meter band for Basic + 5 WPM

Radio Amateurs Canada has asked Industry Canada to permit holders of the BASIC and 5 Word Per Minute Morse certificates to operate in the 10 Meter band. RAC says it believes this proposal is an important step for the growth and stability of the Amateur Radio Service, by offering amateurs who now meet basic international requirements the opportunity to operate on a worldwide DX high frequency band during the upcoming favorable sunspot cycle years. The request by Radio Amateurs Canada was a result of requests from amateurs at club meetings and at hamfests across Canada in support of such an upgrade in privilege.

Scanner proposals could hurt Hams

The ARRL has told the FCC that some of its recent proposals to tighten scanning receiver rules "constitute severe regulatory overkill" and could harm law-abiding amateurs. The League made the comments in response to last month's FCC Notice of Proposed Rulemaking (ET Docket 98-76).

The ARRL said it's "sensitive" to the FCC's concern that devices not be able to readily intercept cellular calls. But, the League added, some of the FCC's proposals could result in "insufficiently defined regulations" that would prohibit or unreasonably restrict the making and selling of Ham and test gear. Some product lines could become prohibitively expensive or prohibited altogether by the proposals, the League asserted.

Among other things, the League asked the FCC to avoid requiring scanning receivers in Ham equipment to block access to frequency-control circuits, and to not entirely prohibit frequency converter or transverter kits for use in the Amateur Service. The League said the net effect of the kits ban would be to prohibit any frequency converters, even though they would not be used or useful for cellular reception, and asked the FCC to create an exception for Amateur Service frequency converters.

The League also asked that amateur receivers not be required to undergo potentially expensive direct-pickup immunity testing, and it urged the Commission to more clearly define its proposed rules to avoid unintended consequences that could adversely affect Hams.

The League agreed some extended coverage Ham transceivers have image responses that make them able to receive cellular signals. But the League said this is not widespread and "largely not an issue in the Amateur Service," because the transceivers are not made, marketed, bought, or used for cellular image reception. Manufacturers could configure products to preclude cellular image frequency reception, the ARRL said.

The League said current language banning the manufacture or sale of scanning receivers that are "capable of readily being altered" is sufficient. But the ARRL said requiring tuning and control circuits be made inaccessible would be "an overbroad requirement," and potting or encapsulating frequency-control hardware "is simply unnecessary for most amateur equipment." The League said such a requirement would limit the ability of Hams to legitimately experiment with or to even repair their own equipment and could needlessly drive up the cost of Ham gear and make repair expensive or impossible. "The potting requirement is severe regulatory overkill and should not be enacted," the League said. "There are sufficient, less burdensome regulations now in effect and as proposed."

The League also called the FCC's proposed definition of test equipment "unreasonably limiting" and advised the Commission to correct the problem by eliminating the word "professional" from its definition.

A copy of the League's full comments is available at www.arrl.org/announce/ET98-76-cmt.pdf.

FCC alters amateur 76-77 GHz allocation

As proposed more than two years ago, the FCC now has adopted rules to temporarily restrict amateur ac-

cess to the 76 to 77 GHz band. In exchange for the suspended spectrum, the FCC has upgraded amateur status from secondary to coprimary in the 77.5 to 78 GHz band. The changes were among several the FCC adopted 06 July to encourage commercial development and use of the millimeter-wave frequencies above 40 GHz. The change at 76 to 77 GHz was to provide additional interference protection for vehicle radar collision-avoidance systems expected to be operational in that band.

The ARRL opposed adoption of the temporary restriction at 76 to 77 GHz, saying it did not foresee any incompatibility between the vehicle radar systems and amateur operation. The FCC plans to revisit the possibility of spectrum sharing in the band and encouraged the League to work with the auto industry to develop a sharing plan.

The FCC said upgrading the status of the amateur and amateur-satellite allocation at 77.5 to 78 GHz will ensure amateur access to spectrum near 77 GHz "without the threat of preemption by higher priority services." The FCC also said it believes the allocation is necessary to foster amateur experimentation using millimeter wave technology.

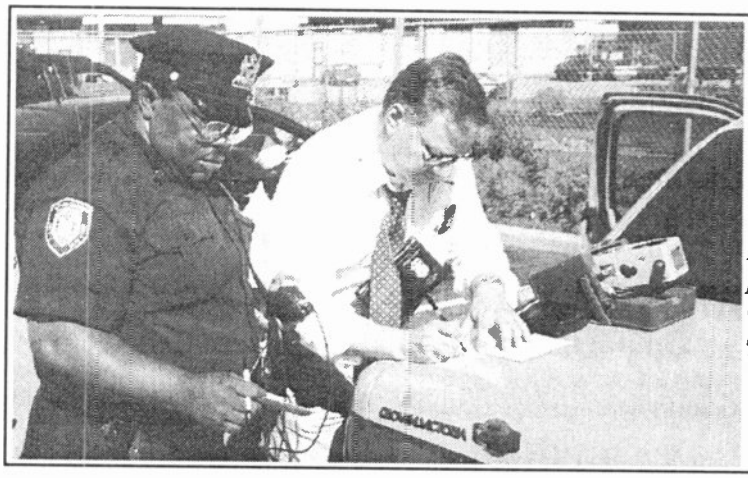
FCC amends rules for U-NII devices on 5 GHz

The FCC has amended its rules for Unlicensed National Information Infrastructure (U-NII) devices operating in the 5-GHz range under Part 15 of the Commission's rules. In 1997, the FCC made 5.15 to 5.35 and 5.725 to 5.825 GHz available to U-NII devices under Part 15 of its rules. Amateur Radio shares part of the spectrum involved, which is in the band 5.650 to 5.925 GHz. U-NII devices would provide short-range, high-speed wireless digital communication.

In response to industry petitions for reconsideration and clarification, the FCC has amended Part 15 to permit fixed, point-to-point U-NII devices in the 5.725 to 5.825 GHz band to operate with up to 1 W maximum transmitter output power and directional antennas of up to 23 dBi gain. The Commission also changed its rules to specify transmit power limits as a function of the channel bandwidth. A logarithmic equation would determine the power permitted. "This action will not increase the maximum power permitted by U-NII devices, but merely scale permissible maximum power to the bandwidth used," the FCC said.

The FCC said it will consider higher gain antennas for U-NII devices for longer-range community networking. In its comments, the NTIA expressed concerns that high-power government radar systems could interfere with the unlicensed devices, but otherwise supported the use of higher-gain antennas for fixed, point-to-point U-NII devices in that band.

The FCC said it would maintain the power spectral density limits adopted in the original report and order.



Summons being issued for illegal taxi radio. *Photo provided by Gerry Smith, W6TER.*

NY Taxi inspections nab radio offenders

An effort continues to eliminate illegally modified Citizens Band radios that can operate on the 10-meter amateur band from New York City taxis. Gerry Smith, W6TER, reports that on 02 July the New York City Taxi and Limousine Commission (TLC), in cooperation with the Port Authority Police and two inspectors from the New York FCC Field Office, inspected CB radios installed in NYC taxis at the Kennedy Airport taxi holding lot. An ad hoc committee has been formed to deal with the illegally modified CB radios in the taxi fleet (see *QST*, June, p. 66-67). Smith praised the effort as "highly successful."

The TLC issued seven tickets to taxi owners alleging violation of the TLC rule forbidding radios capable of operating outside of the authorized 40 CB channels. The cab owners face fines ranging from $100 to $350. One taxi driver surrendered his CB radio to a FCC inspector on the spot!

The TLC and FCC inspected the radios for proper transmit frequencies. Frequency measurements were made using equipment donated to the TLC by the ad hoc committee. The TLC has promised to continue its inspections.

FCC releases "streamlining" proposal

RICK McCUSKER, KO6DJ

The FCC released its proposal to streamline the Amateur Radio service license system, 10 August 1998. The proposal offers the U.S. Amateur Radio operators the chance to have a major part in how the license structure will be changed.

The FCC has made it known in this measure that they want to eliminate the Novice and Technician Plus license classes. The Novice class is no longer the entry level license in Amateur Radio, having been replaced by the Technician class. Novice applications in 1997 numbered less than 1,000 while there were nearly 21,500 Technician applications. The FCC says the two license classes are "an unnecessary overlap between the Novice, Technician, and Technician Plus" licenses, with Technicians and Technician Plus licensees "predominantly" using FM and packet radio on VHF and UHF bands.

If implemented, Novice and Tech Plus licensees would keep their current privileges, but no new Novice or Tech Plus licenses would be issued. Theory examination elements 2 and 3A would be pooled together in a new element 3A.

There is major confusion about CW requirements for HF privilleges. The proposal effectively eliminates the 5 wpm Morse code test, while retaining the higher speeds for General and above. This means an applicant would have to pass 13 wpm to enter the HF arena. However, the FCC is asking for comments from amateurs on what CW code speed requirements for each license class should be. By taking this track, the FCC has clouded the issue of Morse code testing for amateur licenses. Exactly what they are asking remains unclear.

It appears the issue of eliminating Morse testing altogether will be shelved until the ITU makes a decision on several petitions to eliminate CW requirements as an international requirement for HF amateur operation. The FCC also wants our input about more theory questions on newer technology as a trade-off for reducing Morse speed requirements. Do we want tougher questions in the theory examinations, in exchange for lower Morse code requirements?

Current Novice HF bands are being looked at. As of now, there is a 200 watt power limit on these bands for all license classes. If the Novice license class is phased out, will the power limit will be eliminated? One idea being considered is Novice licensees would be allowed to use CW anywhere in the CW portions of 80, 40, 15 and 10 Meters at 200 watts. This is one area that needs clarification.

If implemented, this would reduce the license classes from six to four. Immediately after the ARRL issued its proposal, Hams were concerned with renaming the classes "A, B, C and D." At the ARRL Southwestern Division Convention ARRL President Rod Stafford, W6ROD, said the "A,B,C and D" titles were never meant to be the official names of the license classes, but were used by the ARRL board to differentiate between the classes in their paperwork. With the FCC proposal, the classes will remain as Technician, General, Advanced and Amateur Extra.

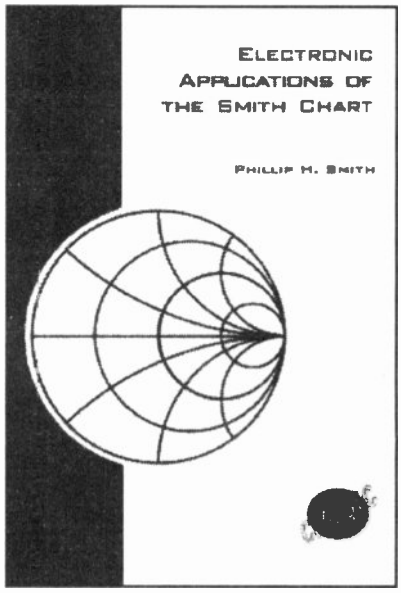
The Volunteer Examination program is also being scrutinized. At issue is the method used by VEs to administer the Morse code examinations. Should the test be confined to one minute of solid copy, a multiple choice exam or both methods? Currently VEs can use any of those methods. Do we want there to be one, and only one method used? Under the proposal, Advanced class VEs would be permitted to administer tests up to and including General class and General class VEs would be allowed to administer Technician class examinations. VEs would be limited to giving tests they themselves have passed. These changes would allow more VE participation in the testing process.

One very controversial issue is the abuse of Morse code examination waivers for the 13 and 20 wpm tests. There is a growing problem with the use of "medical waivers" and the ARRL had proposed each applicant had to try to pass the test at least once before a waiver would be considered. Additionally, the ARRL asked for the FCC to allow VEs access to information regarding the applicants waiver. The FCC ruled access to such information would "place an unfair burden on examinees with disabilities, and raise serious privacy and confidentiality concerns."

How will this all turn out? It all depends on Hams sending in their comments to the FCC. There are several issues to be resolved, and by sending in our POSITIVE comments and suggestions, we have an opportunity to shape the future of Amateur Radio. The FCC has opened an unusually long comment period for our input, with the closing date of 01 December 1998. Reply comments will be allowed until 15 January 1999.

ELECTRONIC APPLICATIONS OF THE SMITH CHART

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,* a Smith Chart software accessory also available from ***Worldradio Books*** for $79.00 + $5.00 s/h.

ISBN 1-884932-39-8

List Price $59.00

Electronic Applications of the Smith Chart is the definitive work on the subject. While the digital computer has rendered many computational instruments obsolete, the Smith Chart remains an important training tool and has evolved into a new role as a display grid on computer and instrument screens.

The book features 263 pages, 119 figures, 7 tables and 135 equations and comes packaged with the forbidden zone overlays, which make it easy to select the correct topology for iumped element matching L-networks.

CHAPTER TITLES

Introduction, Guided Wave Propagation, Waveguide Electrical Parameters, Smith Chart Construction, Losses and Voltage-Current Representation, Waveguide Phase Representations, Equivalent Circuit Representations of Impedance and Admittance, Expanded Smith Chart, Waveguide Transmission Coefficient τ, Waveguide Impedance and Admittance Matching, Network Impedance Transformations, Measurements of Standing Waves, Negative Smith Chart, Special Uses of Smith Charts, Smith Chart Instruments, *winSmith* Operation

Phillip H. Smith was a highly organized, meticulous, hands-on engineer who never backed down from a problem. He first conceived the Smith Chart in the 1930s as an electrical engineer at Bell Labs, but the chart was slow to gain acceptance until 1940, when the M.I.T. Radiation Laboratory first recognized its value. Smith continued to improve on the chart and, in 1969, wrote the first edition of ***Electronic Applications***. After retiring from Bell Labs in 1970, Smith founded Analog Instruments, which still sells about one ton of Smith Charts per year. Smith passed away in 1987 and was posthumously elected to the New Jersey Inventors Hall of Fame in 1994.

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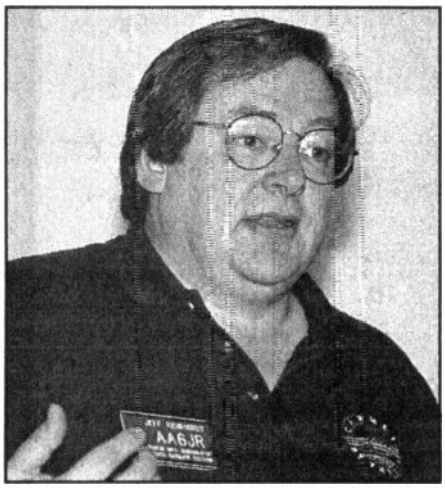
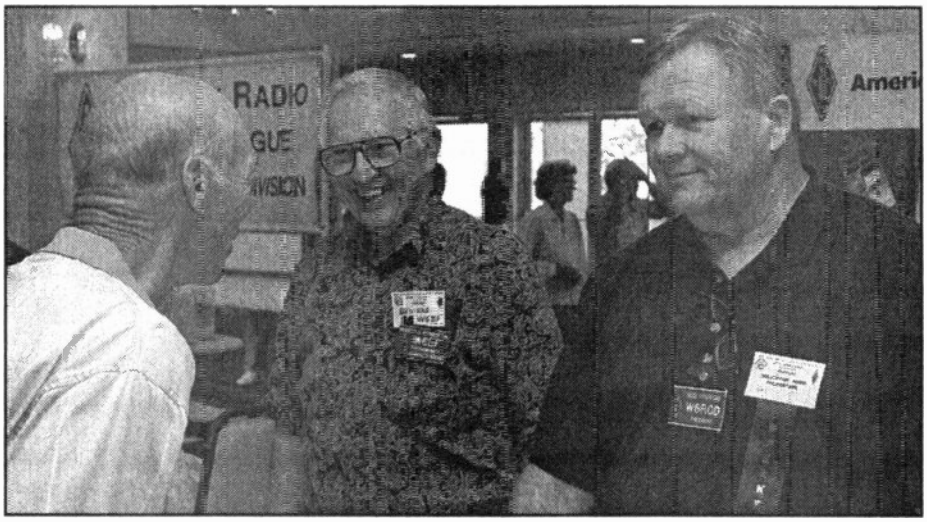


Jeff Reinhardt, AA6JR, gave tips on getting your club activities published by the media, at the interesting media forum.



Left to right: Spud Monahan, K6KH, Phineas Icenbice, Jr., W6BF, Los Angeles section manager and Rod Stafford, W6ROD, ARRL President discussing the fantastic 20 Meter band openings.

Ever wonder what the "NiCad Lady" looks like? Not him — her!

Our friendly and cheerful exhibits chairperson, Leslie Day, KK6NH.

San Diego hosts SW Division

RICK M^cCUSKER, KO6DJ

The ARRL Southwestern Division Convention was held in San Diego, California, 14-16 August, and was hosted by the San Diego Amateur Radio Council. Several interesting forums on everything from the International Space Station to the history of the Queen Mary (site of next year's convention) to DXing 101, a beginner's guide to the wonderful world of DX.

Here are several photographs, courtesy of the ***Worldradio*** staff photographers. More on pages 15, 18-19.

New Guinea DXpedition — A record high score

ARMOND NOBLE, N6WR

Contesting from the wilds of New Guinea was the subject at the DX Breakfast at the Southwestern Division Convention in San Diego, California. Terry Dubson, K6JL, was the guest speaker.

Terry Dubson, K6JL, DX breakfast speaker, talking about the *CQ* WW contest.

A proven pro at this, Terry has previously graced our logs as, (to mention a few) JY7Z, ZW5B, HC8DX, 5W1JJ, 4K2FJL, ZD8Z, VP8SSI, D44BC, CEØY, JT1Z, HS1AZ and the latest, P29AS.

This was the *CQ* WW DX Contest of 1997. Antennas used were a three-element 20M Yagi (20lbs.), a three-element 15M Yagi (15 lbs.), and a four-element 10M Yagi (10 lbs.) all from Force 12. The antennas were designed to fit into a four-foot long box. Rotating the antennas was accomplished via the "Armstrong" method, lines hanging down from the booms.

Putting in the sleepless nights to keep the stations on the air were Dick Norton, N6AA; Art Goddard, W6XD; Phil Goetz, N6ZZ; John Fegnolio, AB6BH; and Larry Weaver, N6TW; all well known in the DX community. Rendering the invaluable help that a local resident provides was Tony Salvadori, P29AS, a Canadian teaching at the university in Port Moresby.

Trying to find a location that was a refuge from the incredibly loud line noise that seemed to permeate the whole area consumed a great deal of time.

How does a multi-multi, (running amplifiers) all in the same small house, keep from overloading RF into the other stations? First, ICE bandpass filters between the transceiver and the amplifier. Then at the output of each amplifier were two coax stubs. One was tuned for the band below and the other for the band above.

New Guinea is one of the more dangerous places to go on a DXpedition due to the extremely high crime rate. Armed guards even patrol the parking lots of the grocery stores.

But the bugs, the heat, meals on the run, sore throats, the expense are all forgotten when the final score is racked up. They scored over 19 million points, which is a new record for the zone.

An accomplished photographer, Terry also showed slides and a video of the rare tropical fish seen while scuba diving and scenes of village life.

Temotu added to DXCC list

The ARRL Awards Committee has accepted a recommendation of the ARRL DX Advisory Committee to add the Temotu Province (H40) of the Solomon Islands to the DXCC List. The addition will be effective with contacts made on or after 31 March 1998, 23:59 UTC. The DXCC Desk will accept QSL cards for Temotu Province (H4Ø) beginning 01 October 1998. QSL cards received before that time will be returned without action. Temotu Province includes the Santa Cruz, Reef, Duff and Vanikolo Island groups. They are located more than 356 kilometers from the main grouping of the Solomon Islands. — *ARRL Letter*

Spectrum bill picks up more sponsors

During August, HR 3752, the Amateur Radio Spectrum Protection Act, picked up seven new co-sponsors. This brings the total to 64, plus the original sponsor Rep Michael Bilirakis of Florida.

The August additions include Rep Frank R. Wolf, Virginia; Rep Linda Smith, Washington; Rep George Miller, California; Rep Max Sandlin, Texas; Rep Lynn Rivers, Michigan; Rep William Goodling, Pennsylvania; and Rep Anne Northup, Kentucky.

The ARRL's Legislative and Public Affairs Manager Steve Mansfield, N1MZA, returns to the Hill the first week of September to prepare for Congress' return from its "district work period" the following week. — *ARRL Letter*

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World's only 300 watt AirCore™ Roller Inductor Antenna Tuner gives you absolute minimum SWR . . . Covers 6 Meters thru 160 Meters . . . lighted Cross-Needle meter . . . tunes any antenna . . . 8 position antenna switch . . . dummy load . . . balun . . . 1 year No Matter What™ warranty

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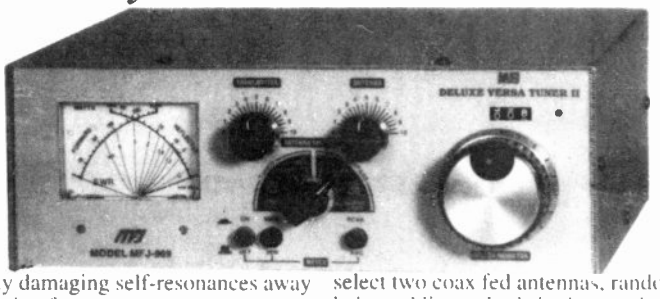

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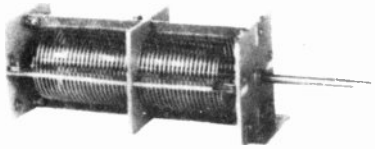
You get everything you've ever wanted including . . . 300 Watts PEP SSB full featured antenna tuner, widest matching range, lighted Cross-Needle SWR/ Wattmeter reads true peak forward power, QRM-Free PreTune™, 8 position antenna switch, built-in 50-Ohm dummy load and heavy duty 4:1 balun -- all in a tough, scratch-proof cabinet.

AirCore™ Roller Inductor



MFJ-969's *AirCore*™ Roller Inductor, three-digit turns counter and spinner knob gives you exact inductance control for *absolute minimum* SWR.

MFJ's exclusive *AirCore*™ Roller Inductor has an air core *that can't burn up!* You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

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Large self-cleaning wiping contact gives you excellent low-resistance connection without contact arcing or burning.

Solid ¼ inch brass shaft has self-align bearings for smooth non-binding operation.

Covers 6 Meters thru 160 Meters

The MFJ-969 covers *all* frequencies from 6 Meters through 160 Meters, *including the "magic band"* -- the widest matching range of any full featured antenna tuner.

Match any Antenna

You can match dipoles, verticals, inverted vees, random wires, beams, mobile whips, shortwave receiving antennas -- nearly *any* antenna. You can use coax cable or balanced feedlines. Has heavy duty 4:1 balun.

Lighted Cross-Needle Meter

MFJ's lighted Cross-Needle Meter shows you SWR, forward and reflected power *simultaneously*. It reads *true peak* forward power and average power on 300 watt or 30 watt ranges.

Meter light has ON/OFF switch and requires 12 VDC or 110 VAC with optional MFJ-1312B, $12.95.

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MFJ's 8 position antenna switch lets you select two coax fed antennas, random wire/ balanced line or built-in dummy load for use through your MFJ-969 or direct to your rig.

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Two *massive* 250 pf transmitting variable capacitors with extra wide (0.27 inch) spaced stator plates can handle 6000 volts and amps of RF current for arc-free operation.

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MFJ-259B gives you a complete picture of your antenna's performance. You can read antenna SWR and Complex Impedance from 1.8 to 170 MHz.

You can read Complex Impedance as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

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You can read SWR, return loss and reflection coefficient at any frequency simultaneously at a single glance.

You can also read inductance in uH and capacitance in pF at RF frequencies.

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Super easy to use! Just set the bandswitch and tune the dial -- just like your transceiver. SWR and Complex Impedance are displayed instantly!

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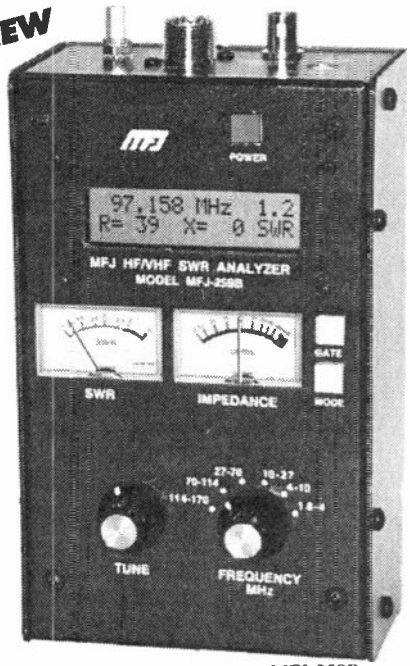

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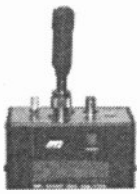
MFJ-219B, $99.95. UHF ***SWR Analyzer***™ covers 420-450 MHz. Jack for external frequency counter. 7½x2½ x2¼ inches. Use two 9 volt batteries or 110 VAC with MFJ-1312B, $12.95. *Free* "N" to SO-239 adapter.

SWR Analyzer Accessories



Dip Meter Adapter

MFJ-66, $19.95. Plug a dip meter coupling coil into your MFJ *SWR Analyzer*™ and turn it into a sensitive and accurate bandswitched dip meter. Save time and take the guesswork out of winding coils and determining resonant frequency of tuned circuits and Q of coils. Set of two coils cover 1.8-170 MHz depending on your *SWR Analyzer*™.

***Genuine* MFJ Carrying Case**

MFJ-29C, $24.95. Tote your MFJ-259B anywhere with this *genuine* MFJ custom carrying case. Has back pocket with security cover for carrying dip coils, adaptors and accessories.

Made of special foam-filled fabric, the MFJ-29C cushions blows, deflects scrapes, and protects knobs, meters and displays from harm.

Wear it around your waist, over your shoulder, or clip it onto the tower while you work -- the fully-adjustable webbed-fabric carrying strap has snap hooks on both ends.

Has clear protective window for frequency display and cutouts for knobs and connectors so you can use your MFJ *SWR Analyzer*™ without taking it out of your case. *Look for the MFJ logo for genuine authenticity!*

MFJ-99, $59.95. Accessory Package for MFJ-259/B/249/B/209. Includes *genuine* MFJ-29C carrying case, MFJ-66 dip meter adapter, MFJ-1315 110 VAC adapter. ***Save $5!***

MFJ *No Matter What*™ warranty

MFJ will repair or replace your MFJ *SWR Analyzer*™ (at our option) *no matter what* for a full year.

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Measure signal strength over 60 dB range, check and set FM deviation, measure antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss in dB. Plot field strength patterns, position antennas, measure preamp gain, detect feedline faults, track down hidden transmitters, tune transmitters and filters. Plug in scope to analyze modulation wave forms, measure audio distortion, noise and instantaneous peak deviation. Covers 143.5 to 148.5 MHz. Headphone jack, battery check function. Uses 9V battery. 4x2½x6¼ in.

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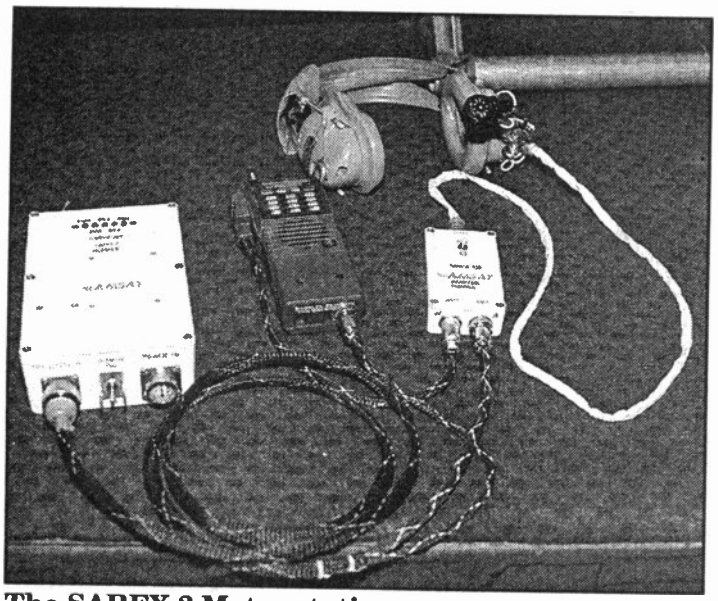
Amateur Radio and the International Space Station

RICK MCCUSKER, KO6DJ

Amateur Radio in space is about to get a big boost with the first launching of a component for the ISS. Slated for launch later this year the construction of the ISS will be taking place over the next four years.

The featured speaker at the ARRL Southwestern Division Banquet, Matt Bordelon, KC5BTL, is the primary investigator for SAREX, and during his presentation gave details about the ISS and the planned Amateur Radio capabilities. His detailed talk to the banquet audience included schedules, names of crewmembers and equipment slated for installation on the ISS.



The SAREX 2 Meter station.

The ISS will be huge when compared with the MIR space station. It will be 290 feet long and 365 feet wide when construction is completed. A co-operative effort of 16 nations, each module is being built at the host country. Each unit is then flown to either Cape Canaveral for loading on the space shuttle or to the Russian space flight center for transportation on their version of the shuttle. Countries involved are Russia, Canada, Japan, Brazil, the United States and the European Space Agency, representing several European countries.

44 flights will be required to deliver all 100 component parts being used in the assembly of the ISS with the first flight scheduled to begin in November of 1988. Aboard the first flight will be a name familiar to many Hams, Sergei Krikalev, U5MIR. Accompanying Sergei will be Yuri Gidzenko and Bill Shepherd. According to Matt Bordelon, a push is on to get as many members as possible through the licensing process for Amateur Radio.

Going up on STS-88 will be an Ericsson 2 Meter HT and a Pico Packet TNC. Future plans for Amateur Radio were discussed in a meeting with eight nations during 1996. As a result, there will be extensive Amateur Radio capabilities, far exceeding anything flown in space before. Eventually the station will have Voice, Packet, Slow Scan TV, and ATV using standard, spread spectrum and MPEG modes. Four antennas will be installed, each offset 90 degrees, in order to have at least one usable antenna facing the earth at all times. Plans call for capabilities from 15 Meters to 2.0 GHz.

Matt Bordelon, KC5BTL, Principal investigator for SAREX and the banquet speaker at the ARRL Southwestern Division convention in San Diego.

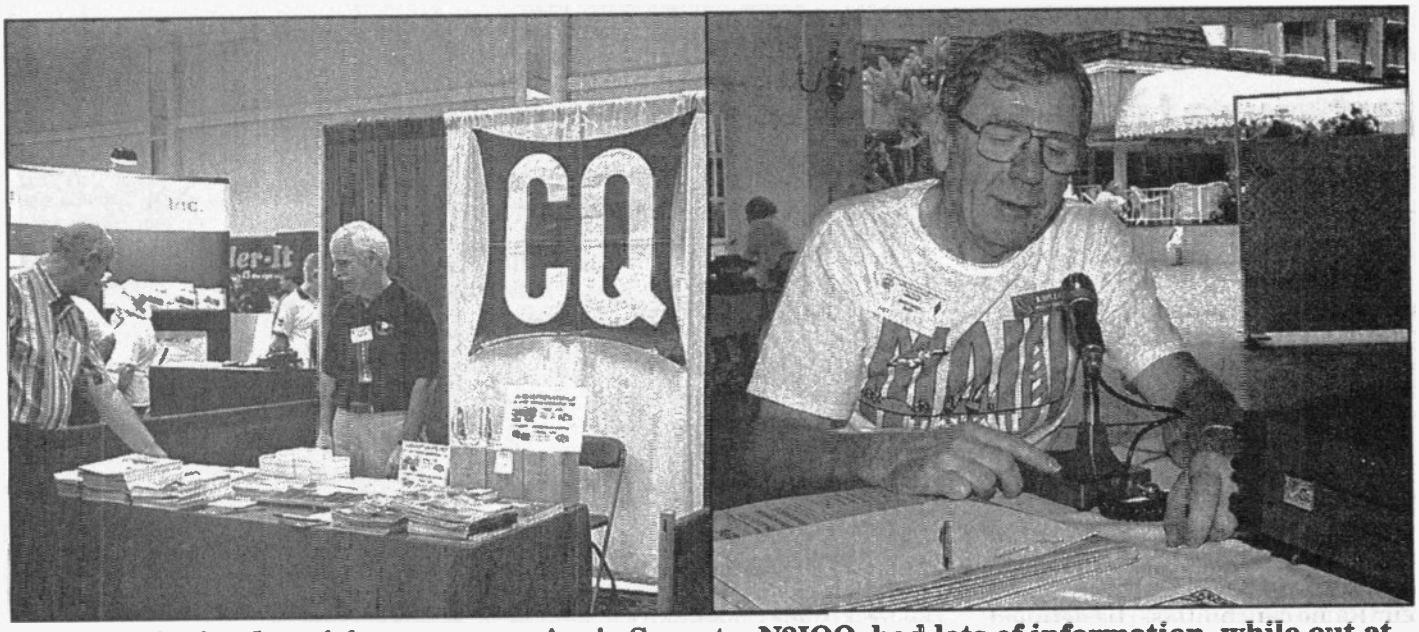
An Ericcson 70 cm digitalker is going up on STS 96. STS 98 will be delivering the dual band radio.

Operations will be limited to 2 Meters until a dual-band unit is delivered sometime late in 1999. Other radio equipment will be sent up as it becomes available. The equipment will not be off the shelf amateur gear. Each piece of equipment is subject to vigorous testing before it can be accepted for space flight.

During assembly, the ISS will not be inhabited until early 2000 when life support and habitation modules are in place. Until then, operation of Amateur Radio will be on a limited basis, depending on construction schedules, and available free time.

Although not confirmed as of this time, the call sign planned for the ISS will be 4U1S for voice, and 4U1ISS for packet. Since this is an international effort, United Nations call signs will be used.

For more information and some excellent artwork about the ISS, see: http//station.nasa.gov.



CQ magazine's advertising manager, Arnie Sposato, N2IQO, had lots of information, while out at the special events station, Marty Green, K2PLF, was one of many amateurs operating the W6P special event station.

Wilderness QRP

ARMOND NOBLE, N6WR

The Joy of QRP was outlined by Lorraine Aubert, AC6XK, a Ranger in the California State Park system.

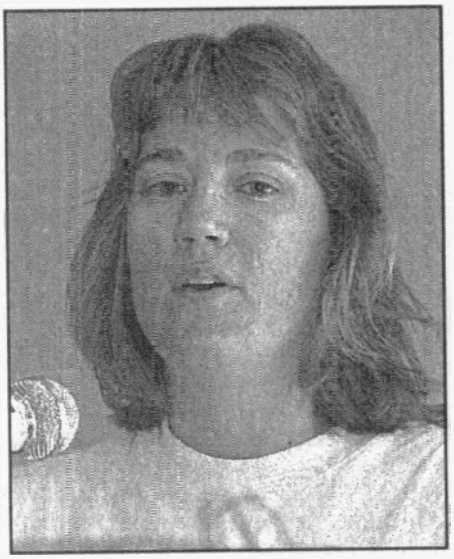
Receiving her license in December, 1995, she then passed the Amateur Extra Class examination in September 1996. In her forum she spoke about meeting a lot of nice, interesting and helpful people.

Spending five days at a time (alone) in the back country, her radio equipment keeps her company with people whom she had developed friendships with after meeting them first on the air. For example, she spent her Memorial Day weekend on a 10 by 12 foot platform.

Showing slides taken at the top of 10,900 foot Mount San Jacinto, the standing-room-only crowd saw Lorraine with a three-element 2M Yagi on a 10-foot pole. She told of the Adventure Radio Society, a QRP group that promotes Amateur Radio and a love of the outdoors.

Demonstrating her Wilderness Radio kit, she told how it can work an entire weekend on a one-amp gel cell battery. With low dipoles and one or two watts, QSOs are made all over the USA on the special QRP frequencies of 7.040 and 14.060 MHz.

Her humorous talk shows the excitement she has for QRP. That kind of excitement is hidden in a great number of amateurs, and certainly inspired more in the audience to explore the Joy of QRP.



Lorraine Aubert, AC6XK, gave an interesting presentation on wilderness operating QRP.

Nate Brightman, K6OSC, gave a fascinating talk about the history of W6RO, the station aboard the *Queen Mary*, the site of next year's Southwestern Division convention.

Peter the First DXpedition prevents house fire

STEVE HAWKINS, WV6U

My excitement reached new heights with each passing day as the date for the 1994 Peter the First DXpedition approached. I needed "3Y" for an all time new one, and it was not likely that anyone would go there again real soon. Getting to Peter the First is not like zipping down to the local supermarket. The traffic isn't bad, but the roads are terrible.

I had been prepared for days, radio tested and ready, antenna locked on the proper bearing, paddles adjusted, a substantial supply of Stout in the cold box. All of the necessities were in place.

On the day that the expedition was supposed to be on the air I arrived at work at 0430; consequently, I could leave early to make sure I was home by the time they went on the air. Very early that afternoon cruising home at just below light speed I heard on the local DX repeater that 3Y0PI was on the air. Yikes! Damn the torpedoes, full speed ahead.

Arriving home I gave my wife a resounding kiss and raced to the radio room. Head phones on, set radio for split, tune vfo "A". Yow! There they were, not 20 over S-9, but strong enough for very good copy. I listened around inside the pileup on vfo "B" to find where they were working. Suddenly in my earphones, BBrraazztt! Holy Cow, what was that! It was almost loud enough to make my nose bleed and it lasted just long enough to cover up who the "3y" came back to.

Ah, here we go again, I reached for my paddles, "W V 6 U",..... Listen.....Listen BBrraazztt!

I nearly tore the head phones off. I swear it made my hair stand straight out from my head. I moved the headphones forward so they were not directly over my ears.

There it was again, regular and just far enough apart so that I could never hear who the "3Y" came back to. What was it? I grabbed my small portable short-wave radio and tuned to an empty spot on the dial just below the 15M Ham band.

BBrraazztt! There it was, not nearly as loud, but with the antenna folded down I could still hear it. I tuned up and down the dial. I could hear it in all of the blank spots clear down below 6 MHz. I jumped up and raced around inside the house holding the radio out in front of me, listening to that horrible sound. My wife just watched calmly. She has grown used to odd behaviors on my part and no longer even blinks, no matter what I do. The signal strength stayed the same everywhere inside my house.

Out the front door, walking quickly, kind of hunched over the radio, I turn left down the sidewalk. Argh! This is making me crazy, they'll probably have to go QRT for some reason before I can figure this out. No, it's not this way, the signal is getting weaker. I turn around and head up the street toward the house to the right of mine. Ahhhhh, the signal is getting stronger.

Two houses down the garage door is open and the signal is really strong. There is a lady in the garage. For reasons I cannot fathom she is staring at me with an odd look on her face. "Go slow now don't scare her," I think to myself. I start up her driveway as calmly as I can, trying not to look feverish and crazed. Meanwhile sweat is squirting straight out of every pore in my body, 3, maybe 4 feet in all directions. I look like a walking lawn sprinkler. She is looking at me with that look again, as if she is about to hold her fingers out in front of her in the sign of the cross.

Trying to put on my friendliest smile and a suave cool manner I thrust the radio toward her and shout, "Hear that?"

The radio goes, "BBrraazztt!"

She hesitantly says, "Yes....what is it?"

"I don't know," I manage to grunt cleverly, "but it's coming from your house."

"How do you know?" she squeaks.

I try to explain signal strength and have her walk up and down the street with me. Then I hold the radio near a quad electrical outlet in her garage.

BBrraazztt!

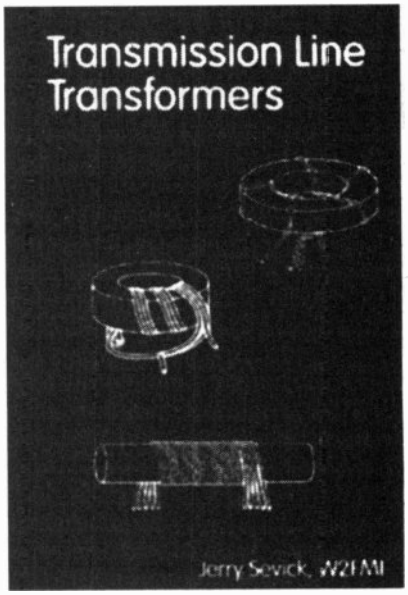
She gets the idea. The problem is that there is nothing plugged into that quad box. My feverish eyes spot another quad outlet box behind her. I hold the radio near it and it shakes in my hand the noise is so loud. There are three cords plugged into this quad box. We unplug the first, no change. The second goes to an upright vacuum cleaner sitting at our feet (vacuuming the garage????, I won't even go there). We unplug it, no change. The third cord disappears around the corner. We unplug it.....silence. I trace the cord around the corner and it disappears into a 5 foot high stack of newspapers. I unstack the papers and there down about 2 feet is an electric heating pad. An electrical heating pad, turned on in the middle of a stack of newspapers. Now we both have that "This person is completely deranged" look in our eyes. She tells me that she put it there to keep her cat warm and forgot about it.

I plug the pad back in for a minute to assure her that this is what was making the noise. We can both easily see in the dim light of the garage, arcing lighting up the small plastic control box built into the cord. I explain to her what is causing the sparking light and the noise in the radio and how it could summon surprise visitors driving big red fire trucks. She still cannot understand how I knew it was there.

Leaving her safe but puzzled, I race down the sidewalk and back to the pileups leaving a faint vapor trail of drying sweat behind me. Oh yeah, I worked them about 24 hours later on 20M CW.

TRANSMISSION LINE TRANSFORMERS

Jerry Sevick, W2FMI



This book stands alone in its coverage of the subject of broadband transmission line transformers. Many configurations of Ruthroff and Guanella types of transformers are described in complete detail, including core selection, conductor types, winding instructions and complete measured performance. Balanced-to-unbalanced (balun) and unbalanced-to-unbalanced (unun) types are included, for matching low and high impedances to an operating impedance of 50 or 75 ohms.

ISBN 1-884932-66-5

List Price $34.00

Transmission Line Transformers is packed with practical data on the design and construction of broadband transformers and baluns. This book was originally published by the American Radio Relay League, and it remains one of the best collections of information on this important subject.

Transmission Line Transformers offers 250 pages of practical information, accompanied by 181 diagrams and illustrated examples.

CHAPTER TITLES

Analysis, Low-Frequency Characterization, High-Frequency Characterization, Transformer Parameters for Low-Impedance Applications, Transformer Parameters for High-impedance Applications, Unbalanced-to-Unbalanced Transformer Designs, Unbalanced-to-Unbalanced Transformer Designs with Impedance Ratios Less than 1:4, Unbalanced-to-Unbalanced Transformer Designs with Impedance Ratios Greater than 1:4, Baluns, Multimatch Transformers, Materials and Power Ratings, Simple Test Equipment, Hints and Kinks

Jerry Sevick made many of the developments featured in ***Transmission Line Transformers*** in his own home laboratory. He is a licensed Amateur Radio operator with the call W2FMI, and he has authored over a dozen magazine articles on the subject of antennas. In 1956, he joined the staff at AT&T Bell Laboratories in Murray Hill, New Jersey, where he was a supervisor in groups working on high-frequency transistor and integrated-circuit development and, later, Director of Technical Relations. He has remained active since his retirement in 1984 in the ARRL, IEEE, Sigma Xi, Sigma Pi Sigma and Phi Delta Kappa.

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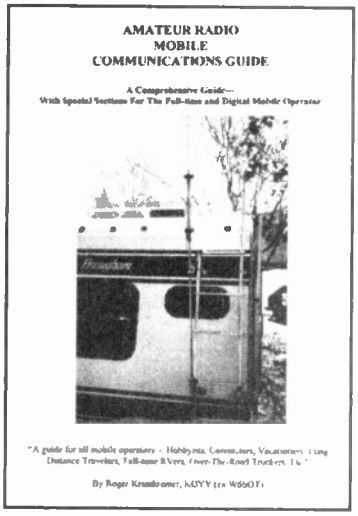
Book Reviews

Amateur Radio Mobile Communications Guide

RICK McCUSKER, KO6DJ

The *Amateur Radio Mobile Communications Guide* is a comprehensive book written for the veteran mobile operator as well as the Ham interested in mobile operating. The book is a very convenient size, 8 1/2" tall by 6 inches wide, and features a comb (plastic) binding that allows the book to lie flat when open.



It features chapters on equipment selection, installation, operating and information for the full-time mobile operators. Each of the chapters is full of useful information and diagrams on just about anything the reader wants to know about installing and operating a Ham radio in any kind of vehicle.

The equipment selection chapter gives the reader guidelines on what type of equipment is suitable for mobile operation, the dos and don'ts of buying, and a look at the advantages and disadvantages of buying used equipment. You will also learn where to install the radio, how to hook up the power to the vehicle electrical system, and how to do modifications to the system to get a more reliable power source.

What about antennas? This guide looks at every type of mobile antenna available in the commercial market, as well as some designs that can be constructed at home. Manual and automatic antenna tuners are also covered in great detail. One of the most helpful hints in this section is clearance! How many times have you whacked your antenna on a low tree limb? What about mounting an antenna? Lots of information on mounting, the different types of mounts available, and tips on the best methods for your particular type of vehicle.

Have you already installed a mobile radio, but it's noisy? This book contains six pages on finding and curing noise. Did you know that loose hubcaps can cause noise in a radio? I didn't, until I read this book!

How about digital modes? There is a section to cover all modes of digital operating. Want a satellite picture of the weather? This book will tell you how to do it.

For those of you lucky Hams out there living on the road, there is a section of the book just for you. How do you get a package sent to you while you are in transit? Roger tells you how to arrange for shipping to the next destination. Need to have your mail forwarded? It's in the book! Need something faxed to you? Yes, it is in this book.

In the back of the book are several appendices with lists of nets, frequencies, important phone numbers, digital addresses, manufacturers' information and weather information.

I highly recommend this book to anyone interested in mobile operations. It is available from most of the major retailers of Amateur Radio equipment and can also be ordered by calling 800/444-9476. It retails for $14.95. For further information, Roger can be reached by Email at: Rogerk0yy@aol.com, or by phone at 303/695-8715, voicemail or fax.

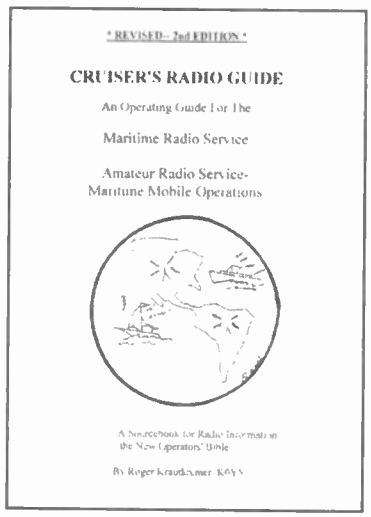
Cruiser's Radio Guide

RICK McCUSKER, KO6DJ

Did you like what you saw in the previous review, but you have a station that floats? Roger has done it again! His *"Cruiser's Radio Guide"* gives you everything you wanted to know about maritime mobile operating, and a whole lot more!

The book is very similar to the "Amateur Radio Mobile Communications Guide," but looks at the special problems encountered by maritime mobile operators. It features sections on equipment selection, installation and antenna selection for your particular situation, as well as tips on problem solving for your installation.

There are several operating modes that are unique to the seagoing operator. Detailed information about Digital Selective Calling (DSC), Weather facsimile (WeFax), Telex Over Radio (TOR), Simplex Telex Over Radio (SITOR), and NAVTEX modes is given for both HF and VHF marine radio systems aboard vessels.



One of the best sections in this book is the listing of times and frequencies for information broadcasts from shore stations around the U.S. The list includes commercial stations, U.S. and Canadian Coast Guard stations. How do you call for help at sea? Detailed and very valuable information is included on getting attention when you need it most.

This book is perfect for those of us that own a boat of any type or size, and are planning on installing radio equipment. This book retails for $19.95 and can be found at most major Amateur Radio equipment retailers, marine dealers, or by calling 800/444-9476.

For further information, Roger can be reached by Email at: Rogerk0yy@aol.com, or you can reach him at 303/695-8715 voicemail or fax.

Awards

Contact All Time Zones

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

• Rules

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

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

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

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

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

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

• Application

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

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

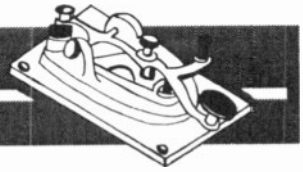
There is a fee of $5 to cover the cost and mailing of the 8 x 10 certificate (mailed unfolded).

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

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

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

Silent Keys



FEIVEL P. (PHIL) PECTOR, W7JXE

Phil Pector, W7JXE became a Silent Key 16 August after a short battle with cancer. Phil was a lifelong Ham and a frequent elmer. He was a veteran of the Korean War, and had worked in broadcast radio in Chicago. He was a technical representative for the Collins Company microwave systems for many years.

At the time of his death, Phil was working for the U.S. Army Communications Electronic Command (CECOM) as a tech rep.Logistics Assistance representative for the Army's tactical communications systems.

Phil collected Collins radios and had restored may of them. He was restoring another 75A4 when he died. He was one of ***Worldradio***'s earliest Superboosters.

A memorial service was held for Phil on 24 August at the U.S. Army Chapel in Darmstadt, Germany.

(Continued on page 61)

SPECIAL EVENTS

Send your special event to ***Worldradio*** *two months in advance and we'll put it on this page!*

JACKSONVILLE 40 YEARS

Jacksonville ARS will operate K9JX 17-18 October in the General portion of 10-80 Meters. For certificate send a SASE and contact information to K9JX, 773 E. College Ave., Jacksonville, IL 62650.

FORT BELKNAP

The **Denton County ARA**, W5NGU, will set up a special event station on 10 October. The location will be from historic Fort Belknap outside of Newcastle, Texas. The Event is in Young County with the Grid Square of EMØ3rc. This is one of the few completely restored forts from the 1800s along the old butterfield stage route. The club will be on 18.140 and 14.250 from 1500Z-2200Z. A special event QSL will be sent out for this event, upon receiving your request. A Special Events call sign of W5F, will be used for the event.

W9AA 65TH ANNIVERSARY

Hamfester's RC will operate W9AA 3-10 October. Any station contacting a member of Hamfester's RC will receive a certificate for this special event. Look for club station W9AA or W9A Special Event call.

Suggested frequencies: 28.410, 28.500, 21.310, 21.360, 14.250, 14.290, 7.200, 7.260, 3.900, 3.950. CW frequencies may also be used.

All requests for QSLs, WAHM awards and certificates should be sent by 14 November to N9ALC. Send SASE and business size envelopes to: N9ALC, 1701 W. 101st St., Chicago, IL 60643

ANDY DEVINE DAYS

The **Hulapai ARC**, WB6RER, will operate a Special Event from Kingman, AZ, and its Andy Devine Days Celebration from 1500Z 10 October-1900Z 11 October. Frequencies include: 3.900 MHz, 7.250 MHz, 14.250 MHz, and 21.350 MHz. For certificates send QSL (which must include contact number), and a 9x12 SASE (2 units of postage or $1) to: Hualapai ARC, P.O. Box 4364, Kingman, AZ 86402.

PACIFICON '98

The **Mount Diablo ARC** will operate W6CX, during the Pacificon '98 radio convention and the Boy Scout Radio Jamboree 16-18 October. Frequencies will be SSB 7.290, 14.290, 21.360. For a certificate, send a 9x12 SASE to MDARC, P.O. Box 23222, Pleasant Hill, CA 94523.

SUN CITY 40 YEARS

The **Sun City ARC**, K5WPH, DM61 40th Anniversary on 10 October. Contact on 28.440 and/or 14.270, 0700-1900 MST. Send SASE to K5WPH, 3709 Wickham Ave., El Paso, TX 79904.

USS REQUIN

The **USS Requin ARC** will operate NY3EC from the submarine USS Requin, docked at the Carnegie Science Center of Pittsburgh, PA from 1400-2100Z 4 October.

The station will operate vintage CW equipment in the 40M band and novice portions of the 10M and 15M bands, if conditions permit. Phone operation will be general segment of 20M and 40M. For certificate and QSL, send QSL and 8-1/2x11" SASE to Jack Buzon, KA3HPM, 47 Grubbs Road, Cheswick, PA 15024-9648

NOWHERE, ILLINOIS WØFUN

17 October, 1400-2100Z. 7.234 and 14.243 MHz. QSL w/SASE to: **Iowa Radiosport Society**, P.O. Box 185, W. Burlington, IA 52655.

PLENTIPOT MEETING

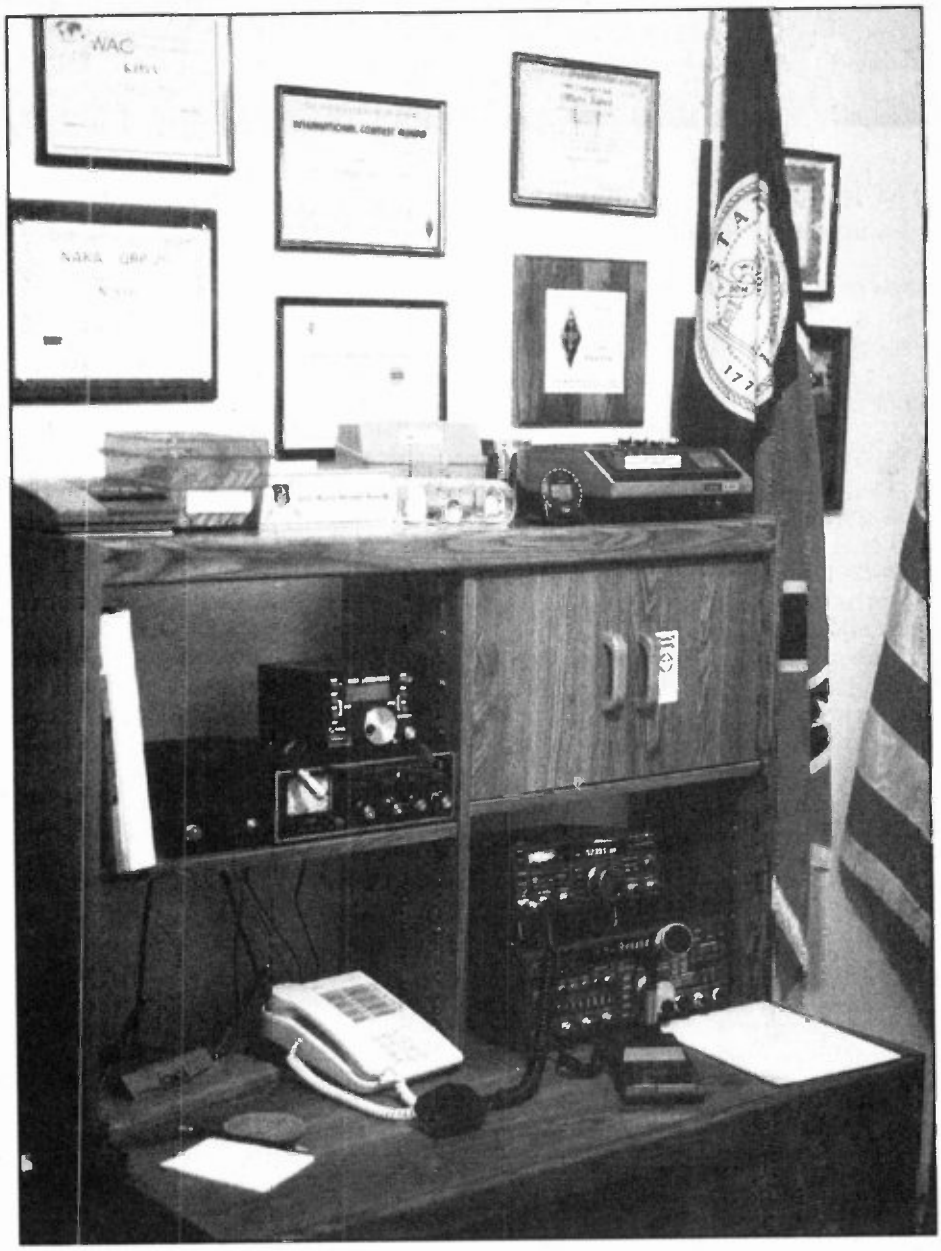
W98ITU will operate from Minneapolis, MN to accompany the 1998 Plentipot Meeting from 11 October-7 November on all HF bands. CW, Phone and RTTY and Novice Band operations are planned. For QSL send SASE to: W98ITU, P.O. Box 131415, St. Paul, MN 55113.

Station Appearance

Dick Russell, KJ5W

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

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



I have found that Amateur Radio brings new friends, relaxation away from the federal bureaucracy [where I am an Aviation Program Manager], and a means to extend friendship across international boundaries. I recently served as President of the FAA Radio Club, A, and am vice-president of the International Police Association Radio Club, station trustee of KCSOLP (IPA Central Region Radio Club), an AML Life Member, and life member to ***Worldradio***. I enjoy DX, various nets, QRP, and particularly 6 and 10 Meters. You will find me regularly on the 3905 Century Club, OMISS, IPA, Elks, and Masonic nets. I operate portable C6A when we get to Paradise Island for school breaks and other vacations.

My station is rather simple at present; a Yaesu FT890AT, an FT736R with 2 Meters, 440 MHz, and 6 Meters, a FT747 back-up HF transceiver, and an INDEXA QRP rig. I use a ground-mounted R7, a G5RV for 75/80 Meters and a SQLOOP for 6 meters both in my attic ["covenants"]. I do "airmobile" work when combining my hobbies with a Kenwood TM-741 Tri-bander in our 1957 Cessna 182 on 2 and 6 Meters and 440 MHz. I soon will have 10 Meter FM installed and all HF capability, QRP.

I "worked" numerous disasters while in police work, the USAF and 30 years in California, including the Roseville train explosion in 1972. However, none compares to the OKC bombing where I served a short time with Salvation Army emergency communications! "Our" recent bombing disaster was considerably different and I believe the difference to be the midwest culture and the people of Oklahoma!

Amateur "Hi"

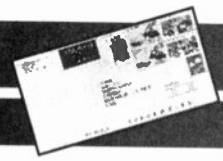
*Ever had a funny or strange experience with Amateur Radio, on or off the air? If so, type it up (or print neatly) and send it to us for consideration in our monthly AMATEUR "HI" contest. You could win a free year's subscription to **Worldradio**!*

Drunken Driving and CB radio

JOHN SMENNER, N4DUI

Over the years, my call sign has brought on many comments both on and off the air. One day while I was pumping some gas at our local convenience store, I noticed the lady attendant looking at me with a puzzled look on her face. When I went inside to pay for the gas she looked at me and said, "I guess you are proud of yourself for being arrested for drunken driving!"

I replied, "I don't even drink, what are you talking about?" She said, "Well, your license plate says that you have been in jail four times for DUI ("in" 4 DUI). I gave her a brief explanation of Amateur Radio and told her N4DUI was my call sign. She said, "Yeah, I understand now. My nephew has one of those CB radios and his call sign is the 'Georgia Dog.'" Sometimes it just doesn't pay to get up.



Off the air

Identification woes

I read with interest the August Search and Rescue Communications column. There are parts of it that should be excerpted and posted on the wall of every RACES, ARES, OEM, and any other like organization. Unfortunately, the people who are in need of the edification it presents will likely not recognize themselves.

I applaud Mr. Wellman's candor in identifying some of the pitfalls in the area of ID cards. Presumably, the argument presented to state officials in providing for Amateur Radio license plates was to identify and permit to pass those people that would provide communications assistance in an exigency. A requirement for further identification in the form of cards "recognized by several public agencies" merely creates a layer of bureaucracy where less, not more, is needed. Moreover, what about the agencies that haven't recognized the cards?

I am unsettled by the comments that "our concern [is] that a non-ARES member might decide to 'crash' the party..." and that "another group...liked the design...[that] the cards look remarkably similar...[and] this is also a concern." I was under the impression that the need was for communications. And while I agree that trained communicators are more effective than untrained ones, arguing over who might or might not show up to help or which fiefdom is being encroached upon is counter productive to the mission.

A friend and I used to discuss the local "RACES" situation, where several groups are engaged in turf wars over jurisdiction and facilities, and we agreed that while several of the local contesters, for example, are loathe to play in the political arena that pervade the local volunteer community, they are the very first people that we would want, should we have need for trained communicators.

If I were coordinating an emergency and given the choice between a "non-ARES member" who was an active and skilled communicator and one with flashing lights on his car, a badge on his uniform, and a "correct" ID, I would send the cop wannabe to direct traffic, and put the skilled communicator into the fray.

It bothers me that the concern about non-group members being turned away is not the potential loss of them to the organization, or worse, to the situation, but that they might make the group look bad. Image is indeed a major problem with these volunteer groups; they are far too concerned with it.

Mr. Wellman states that, "[a]s a volunteer, I take the role that I work for some agency..." That is a fine philosophy, and from the standpoint of the volunteer, is spot on in terms of hierarchy. However, I don't think it has much basis in legal point of fact. The whole purpose of legislation to shield volunteers is based on that ambiguous principle.

I applaud Mr. Wellman for his maturity in recognizing that his actions concerning accepting volunteers in a certain event were "childish and unprofessional." That is precisely the problem in many of these organizations; too many people continue to espouse the attitude, "if you don't belong, we don't need you." Mr. Wellman's point that no victim ever asked for the credentials of the rescuer is extremely well taken.

After 30 years of air traffic control, and 35 years of Amateur Radio, woe betide any "official" who turns away my communications expertise at an exigency because I choose not to play the political game that local groups seem to wallow in.

I wish Mr. Wellman's line, "a public service event is not a competition," would be emboldened and then emblazoned on every Amateur Radio service organization's logo by statute.

Mr. Wellman's penultimate paragraph is a fine summation of what is sometimes wrong and what should be right about public service. All members and potential members should be sworn to it as an oath.

Rod Peterson, N4SI
Aurora, IL

Wind Between the Worlds

I was interested to see Pete Petersen's discussion of Tibet in the August 1998 issue of ***Worldradio***. No doubt others will also tell you that Robert Ford, AC4RF, wrote a book about his experiences in Tibet, including his Amateur Radio operating, after his release from prison; "Wind Between the Worlds" New York: David McKay, 1957.

Dave Sumner, K1ZZ
Coventry, CT

Morse still won't hunt

I would like to respond to those who have written in response to my original letter. First, nowhere in the original letter did I say I hated CW. My ONLY concern is and will be for the Amateur Radio hobby to continue. Fact: CW is either dead or dying in the rest of the communications world. FACT: Amateur Radio frequencies are under increased attack from commercial interests. FACT: The only relevance that Amateur Radio displays today is emergency communications. For the hobby to survive, we need new blood in it, and we need to advance into new areas. Otherwise, our hobby will be overrun by the commercial interests citing our irrelevance. Those members of our hobby with their feet firmly planted in the past will only contribute to our demise. I stand by my original statement; CW is fine for those who want to use it, but it should NOT be a requirement any more for a license (even the ARRL is starting to see that light with their recent suggested license changes).

John Frank, Jr. WB3ICL
Millersville, MD

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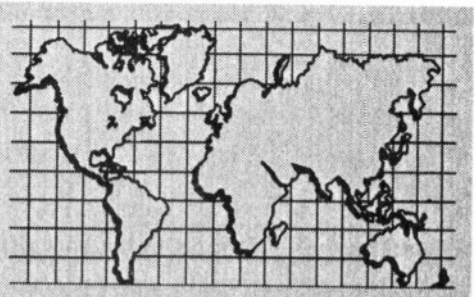
I took a year off from my work so I could study English for eight hours a day every day. That was so I could read AERIALS III in its original language and better understand the subtleties and nuances. — Heinrich Hurtz

Oh, I only wish I had read AERIALS III before I started my experiments. That would have saved me many years of hard work. — Guglielmo Macaroni

DX WORLD



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

W-100-N

The following two DXers have been awarded *Worldradio*'s Worked 100 Nations certificates during the month of July:

536. James V. League, KN4ZW 23 Jul 98
537. Ong-Art Khaocharee, HS1GUW 23 Jul 98

CATZ

We also processed another CATZ (Contact All Time Zones) with this one being awarded to:

5. Sam R. Scheltens, PA2SAMAll CW 23 Jul 98

I'm sure most readers are aware of *Worldradio*'s sister publication, ***International Travel News*** or ***ITN***. These awards are also in that publication, but under different criteria. Had our famous traveling DXers been alive today they would have qualified for all four! If you are still scratching your heads, that's Lloyd and Iris Colvin.

Bangladesh (S21J)

Meet Mamtez Shahid, S21J, a new DXer and the first YL operator on on the HF bands from Bangladesh. Mamtez is presently very active on 15 and 20 Meters SSB and by mid-July she had worked at least 1,000 stations. Mamtez is not the only amateur in her family. She is married to Saif Shahid, S21A.

Belize (V3)

This one is definitely not considered rare DX, but to those who need it look for Jay Hoskelis, KØBCN, who will be signing with V31MX from 21-26 October 1998. Jay will also be active in the *CQ* Worldwide DX Contest on 10, 15 and 20 Meters. He will also be operating CW outside the contest.

Campbell Island (ZL9)

The Kermadec DX Association DXpedition to Campbell Island (OC-037) is still scheduled for this coming January. The planned dates are 09-25 January with an estimated cost of $65,000 U.S. They are presently looking for sponsors. If interested please contact Ken Holdum, ZL2HU, at P.O. Box 56099, Tawa, Wellington, New Zealand. All donations will be returned if the project is canceled.

According to Bernie McClenny, W3UR, editor of *The Daily DX*, the group has secured the *Braveheart*, a 117-foot diesel powered vessel, to carry them to the island from New Zealand. The team is multi-national with four operators from New Zealand, two from the U.S., and one each from Canada, Japan, Ireland, Northern Ireland, and Singapore.

Christmas Island (VK9X)

The Daily DX reports that Charlie Summers, Jr., WØYG, and George Taft, W8UVZ, will be on Christmas Island (OC-002) and Cocos (Keeling) Island (OC-003) from 06-20 February 1999. They will operate from each island for one week. Emphasis will be on the low bands, the three new WARC bands, and RTTY. No calls have been issued as of this writing.

Kerguelen Island (FT5X)

The Ohio/Penn *DX Bulletin* reports that Helios, FT5XN, continues to be active from Kerguelen Island (AF-048). Look for him between 14.185 and 14.200 MHz around 1100 UTC.

Kermadec Islands (ZL8)

The Daily DX notes that Bob Sutton, ZL1RS, has returned to New Zealand after his short visit to the Kermadec Islands. Bob operated as ZL8RS and accumulated over 5,000 contacts. He said there is a possibility that he would go back near the end of the year.

Malawi (7Q)

On 20 Meters SSB Don, 7Q7DC, has been reported. He was found working the deserving as early as 08 July. Evidently, he works net style as he was reported on 14.227 MHz around 1400 UTC the latter part of July.

Marshall Islands (V7)

The Daily DX received word from Dave Fortin, V73UX, who is the most active station from the Marshall Islands. Very active on 10 through 80 Meters SSB, he reports the following stations are also active from the Marshall Islands: Tim McLaughlin, V73AT, is mostly on 6 Meters but does operate on 10 Meters when open; George Talbot, V73GT, operates CW and RTTY; V73ZO is a JA operator located on Bikini and is very active on 15 Meters SSB.

The Pacific Inter Islands Net meets daily on 14315 at 0800Z. Many stations all across the Pacific Ocean check in. Although the primary purpose of this net is to pass traffic, some of the stations do stick around after the net. Stations from the Marshall Islands may check in and perhaps one you need may as well.

Saint Martin (FS)

Ken Knopp, K7ZUM, and Craig Maxey, N7KG, will be heading to Saint Martin (NA-105) to operate in the upcoming *CQ* Worldwide DX Contest in October. This will be an all band effort with the call FS/K7ZUM.

In addition, Craig will enter as a single band effort on 160 Meters signing with FS/N7KG. He plans activity on CW only prior to the con-

test. Please send your QSL requests via their home calls, K7ZUM (formerly KA7ZUM), and N7KG. Be sure to include an s.a.s.e. Bureau cards are also o.k., but not via the French bureau!

Togo (5V)

The Daily DX notes that Marc Bagalino, F5PCU, and formerly 5V7BM, is presently signing with 5V7FA from Togo and should be there through next July. You might try 15 Meters near 21.255 MHz from 1800 UTC.

Vietnam (3W)

Rolf Salme, SM5JE, has returned from Vietnam after operating as XV7SW during a vacation tour at Hanoi. Rolf collected an accumulated total of 25,616 contacts on CW and a mere 59 on SSB. Rolf has relocated to the Swedish Embassy in Tokyo. He is contemplating leaving it to others to provide Japan for DXCC.

Western Samoa (5W)

According to *The Daily DX* Sakuma, JI3WLT, is active from Western Samoa signing with 5W1SA and should be there for the next three years. He operates the three popular modes: CW, SSB and RTTY.

IOTA

According to the *Ohio/Penn DX Bulletin* Joel, F5JJW, will once again sign with the call FOØSUC, this time in the Austral Islands between 07-17 October. He will be on Tubuai Island (OC-152) with much of his activity on 10, 15 and 20 Meters.

From Adelie Land (AN-017) Jean Marie Vilpasteur, F6ICA, and Phillipe Delorme, F5GLS, will be active from this December for one year. No call has been indicated at this time.

Here is another usual monthly selection of IOTA activity. The list if far from complete and we really do not want to get carried away with this as IOTA isn't the only DX on the bands. Not included in this selection are the obvious island groups, such as Bahrain (AS-002) or Australia (OC-001). Other island groups that can be identified by their calls, such as the Russian calls on Sakhalin Island (AS-018) that are in the zero call area followed by an E or F as the first letter in the suffix, are also not included. Activity during the annual IOTA contest is also excluded. However, these stations could be listed for activity outside the contest period.

AF-010 3C5DX	Bioko Island	01-06 Jul
AF-018 IH9/IT9BLB	Pantelleria Island	24-30 Jul
AF-019 IG9/I1SNW	Lampadusa Island	13 Jul
AF-019 IG9/IK3LYP	Lampadusa Island	16-23 Jul
AN-006 EM1LV	Galindez Island	12-23 Jul
AS-005 RØ/US3IU	Dickson Island	27-29 Jul
AS-008 7K3EOP/1	Miyake Island	24 Jul
AS-015 9M2TO	Penang Island	18-23 Jul
AS-015 9M2TD	Penang Island	12-19 Jul
AS-017 JR6EA	Okinawa Island	07 Jul
AS-024 JS6PMR	Yaeyama Island	15 Jul
AS-028 UAØQMU	Kotelny Island	01-28 Jul
AS-032 JO6PRM	Osumi Archipelago	31 Jul
AS-037 JF6WTY/6	Koshiki Island	31 Jul
AS-043 JR1EAX/1	Hacijiyou Island	01 Jul
AS-045 HL5FUA	Ullung Island	03 Jul
AS-045 6M5DX	Tok Island	29-31 Jul
AS-047 JH1MKU/6	Kita Daitou Jima	23-28 Jul
AS-053 HSØ/IK4MRH	Phuket Island	05-19 Jul
AS-059 UAØIAS/0	Spafaryev Island	27-30 Jul
AS-066 UAØNL/0	Russkiy Island	23-27 Jul
AS-079 JA5CKD/6	Miyako Island	01-19 Jul
AS-095 UEØZZZ	Starichkov Island	22-30 Jul
AS-102 BOØK	Kinmen Island	24-26 Jul
AS-117 JG6URG/4	Honshu Coastal	24 Jul
AS-131 BD7JA/7	Guangdong Province	19 Jul
AS-136 BI4C	Changxing Island	13-15 Jul
AS-137 BI5Z	Zhoushan Island	16-17 Jul
EU-006 EI4VVF/P	Arran Island	13-24 Jul
EU-009 GMØHTG	Mainland Island	28-30 Jul
EU-010 MSØBPG/P	Isle of Barra	06-10 Jul
EU-010 MM/PA3GIO/P	Isle of Lewis	29-30 Jul
EU-012 MMØ/DJ6AU	N. Mainland Is.	09-30 Jul
EU-016 9A/OK1BJH/P	Hvar Island	07-08 Jul
EU-020 SM1SBI	Gotland Island	16-29 Jul
EU-028 IA5/IZ5BTC/P	Elba Island	13-21 Jul
EU-030 OZ/DL5ME	Bornholm Island	21-29 Jul
EU-030 OZ7AEI/A	Bornholm Island	06-10 Jul
EU-032 F/ON5AI	Ile de Re	05-11 Jul
EU-032 TM3X	Ile d'Aix	04-14 Jul
EU-034 ESØK	Kihnu Island	09-13 Jul
EU-034 ESØNW	Hiiumaa Island	02-19 Jul
EU-036 LA8LA	Hitra Island	02-20 Jul
EU-037 SM7CRW	land Island	01-22 Jul
EU-037 SM/DL2SWW	land Island	13-24 Jul
EU-037 SM7DLZ	land Island	01-19 Jul
EU-039 F/ON4LCW/P	Chausey Islands	09-30 Jul
EU-041 IMØ/I2CMA	Santo Stefano Is.	17-21 Jul
EU-044 LA/DK4UN/P	Kvaloy Island	07-09 Jul
EU-046 LA/DK4WD/P	Senja Island	09-12 Jul
EU-046 LA/DK4UN/P	Uleoy Island	09-12 Jul
EU-046 LA1CI	Ringvassoey Is.	01-15 Jul
EU-048 F6BNV/P	Belle Isle	14 Jul
EU-049 SV8DTL	Lesvos Island	16-29 Jul
EU-049 SV8/ON5CT/P	Samos Island	15-27 Jul
EU-049 SV8DCY	Lesvos Island	01-20 Jul
EU-049 SV8DTD	Lesvos Island	03-21 Jul
EU-052 SV8AQY	Cefalu Island	08 Jul
EU-052 SV1BRL/8	Kiki Island	15-29 Jul
EU-052 SV8/IZ0BVU	Corfu Island	08-09 Jul
EU-054 IF9/I1SNW	Favignana Island	07-10 Jul
EU-055 LA4C	Karmoy Island	04-15 Jul
EU-055 LA/DL1RNW	Karmoy Island	21-24 Jul
EU-055 LA/DL6EFN	Karmoy Island	24 Jul
EU-056 LA/SM3JBE	Otroy Island	08 Jul
EU-057 DL3JTN/P	Ruegen Island	24-29 Jul
EU-059 GW4WSB	St Kilda Island	29 Jul
EU-067 SV8/DL2DCD	Tinos Island	23 Jul
EU-071 TF7/DL3KUD	Vestmannaeyjar Is.	21-28 Jul
EU-072 SV8/DL8MCA	Skiathos Island	01-08 Jul
EU-075 SV1TP/P	Poros Island	15-21 Jul
EU-076 LA/DL2EEC/P	Austvagoya Is.	08-09 Jul
EU-076 LA/OE5YPO	Moskenesoy Island	15 Jul
EU-076 LA/DK4UN/P	Moskenesoy Island	15 Jul
EU-079 LA/SM3JBE	Runde Island	09-10 Jul
EU-082 U1ZA/A	Kildin Island	03 Jul
EU-084 SMØOIG/5	Roslagen Island	13-29 Jul
EU-089 CU9L	Corvo Island	09-12 Jul
EU-090 9A8P	Palagruza Island	26-30 Jul
EU-105 F/ON4BDS/P	Islands of Batz	21 Jul
EU-120 G3LWI	Isle of Wight	20 Jul
EU-120 GB2GMM	Isle of Wight	21 Jul
EU-122 GB2MRI	Rathlin Island	03-08 Jul
EU-126 OH/DK4UN/P	Hailuoto Island	01 Jul
EU-126 OH/DK4WD/P	Hailuoto Island	01 Jul
EU-128 DK2GM/P	Fehmarn Island	15-30 Jul
EU-129 DL1JEQ/P	Usedom Island	11-18 Jul
EU-129 DL5AUA/P	Usedom Island	29-31 Jul
EU-131 IL3/IK2PZG	Venezia Island	05 Jul
EU-131 IK3PQH	Lido Island	17 Jul
EU-131 IK3TTY	Murano Island	09-10 Jul
EU-131 IL3/IZ3ALM	Pallestrina Island	18 Jul
EU-132 SO7TN/1	Wolin Island	27-28 Jul
EU-132 SP2LLW/1	Wolin Island	20-22 Jul
EU-132 SP2CYK/1	Wolin Island	02-03 Jul
EU-132 SP2QCW/1	Wolin Island	19 Jul
EU-132 SP6CZ/1	Wolin Island	24 Jul
EU-134 ED2IZA	Izzaro Island	26-29 Jul
EU-136 9A/S57AL/P	Pag Island	17 Jul
EU-136 9A/IK8MRA	Krk Island	29 Jul
EU-136 9A/ON5JE	Krk Island	01-20 Jul
EU-139 SM/DK4WD/P	Seskaroen Island	01 Jul
EU-139 SM/DK4UN/P	Seskaroen Island	01 Jul
EU-141 LA/DK4UN/P	Vardo Island	04 Jul
EU-141 LA/DK4WD/P	Vardo Island	04-05 Jul

EU-148 F9DX/P	Bresco Island	29 Jul
EU-149 ES2RW/2	Prangli Island	09-11 Jul
EU-160 RA1QQ/1	Koshi Islands	26-27 Jul
EU-161 RA1QQ/1	Kharlov Island	30 Jul
EU-165 IMØ/IK2AEQ	San Pietro Island	09 Jul
EU-167 CT1AHU/P	Pessegueiro Island	23-24 Jul
EU-167 CT1ENQ/P	Pessegueiro Island	26-27 Jul
EU-167 CT1EEN/P	Pessegueiro Island	24-26 Jul
EU-167 CT1/ON5NT	Pessegueiro Island	23 Jul
NA-048 C6AJR	Bimini Islands	26-28 Jul
NA-051 VE7QCR	Queen Charlotte Is.	11 Jul
NA-057 N7QXQ/HR6	Roatan Island	05 Jul
NA-084 VE2/F6ELE	Harrington Island	17-18 Jul
NA-084 VE2/F6HKA	Harrington Island	17-18 Jul
NA-091 VE7KN	Hornby Island	09 Jul
NA-128 VE2CY/P	Coudre Island	12-21 Jul
NA-144 WC6DX	Santa Rosa Island	17-18 Jul
NA-150 KL7/W6IXP	Little Diomede Island	31 Jul
NA-151 OX3LG	East Coast group	31 Jul
NA-173 W2MTJ/VE8	Long Island	26-30 Jul
NA-176 VE2/F6ELE	Mingan Archipelago	12 Jul
NA-176 VE2/F6HKA	Mingan Archipelago	13 Jul
NA-177 VE2/F6HKA	Bonaventure Island	21 Jul
NA-177 VE2/F6EKE	Bonaventure Is.	21-22 Jul
NA-198 XO1CWI	Fogo Island	22-28 Jul
NA-210 K6ST/KL7	Sledge Island	24 Jul
OC-008 P29BW	Bismarck Archipelago	18-19 Jul
OC-011 V63KU	Moen Island	02-31 Jul
OC-013 ZK1JD	Rarotonga Island	03-09 Jul
OC-027 FO5QG	Nuku Hiva Island	01-09 Jul
OC-033 FK8VHN/P	Lifou Island	23-27 Jul
OC-050 FO5JR	Rimatara Island	23-31 Jul
OC-059 V63AO	Kosrae Island	03-26 Jul
OC-070 YE8XM	Ambon Island	18-31 Jul
OC-070 YC8VIP	Ambon Island	02-30 Jul
OC-129 N7ET/DU7	Negros Island	04-13 Jul
OC-129 DU6BG	Panay Island	02 Jul
OC-130 DU8DJ	Mindanao Island	02-31 Jul
OC-137 VK4LV	Bribie Island	04 Jul
OC-143 YB4JIM	Sumatra Island	02-19 Jul
OC-143 YB5QZ	Sumatra Island	07-28 Jul
OC-146 YB8BYS	Sulawesi Island	18 Jul
OC-148 YC9MKF	Timor Island	01-03 Jul
OC-149 H44NC	New Georgia group	02-30 Jul
OC-151 YC8LQA	Flores Island	02-03 Jul
OC-151 YC8BHC	Flores Island	03-26 Jul
OC-169 A35RK	Lifuka Island	10-17 Jul
OC-201 ZL1MFW	Great Barrier Reef	31 Jul
SA-008 LU8XW	Tierra del Fuego	09 Jul
SA-017 PY2HA	Santo Amaro Is.	08-09 Jul
SA-037 YW5LB	La Blanquilla Is.	10-13 Jul
SA-056 HC1MD/HC4	Cojimies Island	21-24 Jul

As this column is being prepared Tom Attwood, W6IXP, and Barry Bettman, K6ST, finally were able to get out to Little Diomede Island (NA-150), one of the most wanted islands for IOTA hunters. They had been delayed due to the fog and rough seas. Their length of stay depended on the weather. The team did activate a brand new IOTA island from Sledge Island (NA-210) off the coast of Nome earlier in their IOTA DXpedition.

IOTA Credits

The following recent IOTA operations have provided acceptable validation material:

AS-049 JH4FBV/4	Kuchinoshima	May 1998
AS-117 JH4FBV/4	Yokoshima	Apr 1998
AS-134 BI3H	Shijiutuo Island	Apr 1998
EU-008 GB8FF	Staffa Island	May 1998
EU-108 GB5TI	Treshnish Isles	May 1998
NA-034 W4/GØUIH/M	Clearwater.Honeymoon/ Treasure	May 1998
NA-209 H75A	Venado Island	May 1998
SA-007 HK3JJH/ØM	Malpelo Island	Apr 1998
SA-040 HK3JJH/1	Rosario Island	Mar 1998

Of particular note is that Pedro's Malpelo Island DXpedition has been accepted and it assumed that the DXCC Desk will do likewise.

The following operations have been issued provisional IOTA references numbers and have yet to be confirmed. Do not submit these operations for credit until the operation has been accepted by the IOTA committee.

AS-135 BI4Q	Jiangsu Province group	Jun 1998
OC-226 V63RL/P	Pingelap & Mwokil Atolls	Jun 1998
SA-086 CE1LDS/2	Coquimbo/Aconcagua Prov.	Jun 1998

New Ones

In the early part of July there was a question regarding the acceptance date for DXCC credit on the new entities that came on the air in April. These are the operations of H4ØAA, H4ØAB, FOØFI and FOØFR, if you recall. Here is the answer.

"There is a procedure that must be followed before adding a 'New One' to the DXCC List. It involves the filing of a petition by whomever may want to file it, the review of the petition, obtaining any necessary information, charts, etc. The petition must be reviewed by the MSC, who then may elect to forward it to the DXAC and Awards Committee for review. After the review, it may be added to the DXCC List, with cards accepted after a date that allows for members to receive cards from the operation. This is usually at minimum six months.

"The computerization of DXCC introduced a new factor into the equation: that of requiring a work stoppage in order to complete all work before the cutoff date. Since a

DX Prediction — August 1998

Maximum usable frequecy from West Coast, Central U.S. and East Coast (courtesy of Engineering Systems Inc., Box 939, Vienna, VA 22183). The numbers listed in each section are the average maximum usable frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa—Kenya/Nairobi, Asia—Japan/Tokyo, Oceania—Australia/Melbourne, Europe—Germany/Frankfurt, and South America—Brazil/Rio de Janeiro. Smoothed sunspot number = 93. Chance of contact as determined by path loss is indicated as bold ***MUF** for good, plain MUF for fair, and in *(parentheses)* for poor. UTC in hours.

CENTRAL U.S.A.

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	*(16)*	*11	*18	*(11)*	*17
10	*(15)*	11	*17	*(10)*	*17
12	31	10	*16	20	*29
14	*36	*14	*24	*23	*33
16	*38	*(13)*	21	21	*36
18	*37	*(13)*	*(18)*	17	*37
20	*30	22	28	13	*38
22	25	24	33	*(12)*	*36
24	*21	21	34	11	*31
2	*19	14	*27	11	*26
4	*17	*(13)*	23	10	*22
6	16	*(12)*	20	*11	*20

WEST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
10	*(13)*	*14	*19	*(11)*	18
12	*(12)*	*13	*18	*(10)*	*16*
14	(25)	*13	*17	20	*31
16	28	*13	*21	20	*36
18	*30	13	*(18)*	17	*38
20	*30	22	27	13	*38
22	25	*29	33	*(12)*	*37
24	22	*30	*37	*(11)*	*34
2	*17	*27	*36	11	*28
4	*15	*18	*30	10	*24
6	*(14)*	16	*25	*12	*21
8	*(13)*	*15	*22	*(11)*	*17

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	16	*(11)*	*(18)*	*11	*18
9	15	10	*17	10	*17
11	*32	10	*16	*21	*27
13	*37	12	*26	*24	*31
15	*39	*(11)*	*23*	*22	*35
17	*39	*(11)*	*20*	*20	*37
19	*33	*(10)*	*(24)*	14	*38
21	*28	21	31	12	*36
23	*22	21	34	*11	*32
1	*19	14	26	*11	*27
3	*18	*(12)*	23	*10	*23
5	*17	*(12)*	20	*10	*20

slight reconfiguration of the computer is required before adding the 'New One,' all work for a particular month must be completed before the 'New One' can be added. If not, member records and lists would not correctly reflect what is possible before a certain date, and what is not.

"Since we require two work stoppages each year for the preparation of the Annual List and the Honor Roll List, we will begin accepting cards for any "New One" only after one of those dates. Since all three entities under consideration at the present time began operations in April, it would be October before cards could be accepted for any of them. This would allow for the review, for time for the operators to process the logs and cards (think about how long it takes to process 50,000 plus QSL cards for one manager), and allow us to make the orderly shutdown necessary to make the addition. Bill Kennamer K5FUV, Membership Services Manager."

New DX Editor

We understand that Bernie McClenny, W3UR, will assume the duties of DX Editor for *QST*, the official organ for the American Radio Relay League (ARRL) beginning with the September issue. Bernie is not new to DX editing as he presently edits *The Daily DX*. Welcome, Bernie. We all look forward to reading your advice and news in "How's DX."

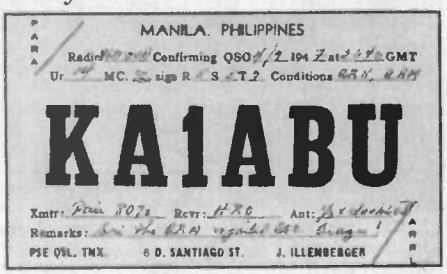
By the way, old-time DXers should remember one of the greats of that column, Rod Newkirk, W9BRD. That was the time before the weekly DX newsletters and the Internet. The information may have been late but who cared. Those long lead times for publications are killers!

Clubs

The San Diego DX Club recently elected their officers for the 1998-1999 term that includes Bud Semon, N7CW, for President, Ed Andress, W6KUT, for Vice President, and Harry Hodges, WA6YOO, as Secretary/Treasurer.

Antique QSL Department

This month's selection of antique cards was provided by Bill Manson, KN6RH, of Carlsbad, California. Bill was formerly WØOUH in Fargo, North Dakota. He later dropped out of Amateur Radio and after retiring and moving to California, he once again joined the ranks of our fine hobby.



The first card is that of the Philippine Islands, which was at one time an American territory, which explains the U.S. call of KA1ABU. The operator was J. Illenberger of

Manila, who Bill worked back in 1947. Viewing the date we are not sure if it was 4 September or 9 April, but as this was American most likely it was April 9, 1947. I believe this was also the year the country gained independence.

George Lowell, was the operator of KB6AM on Canton Island, part of the American Phoenix Island group. The date of this contact was 29 April 1950. Canton Island is now included in the nation Kiribati. The DXCC group, Baker, Howland and American Phoenix Islands, has been restructured to Baker and Howland Islands, which is now a rarer group with the removal of Canton Island. There are two amateurs with the name George C. Lowell in the Callbook, AG6N and NØEOQ, and it probably is the one with the California call.

The third card, KS4AC, was that of F.A. "Griff" Griffin on Swan Island. Bill worked him back on 12 April 1947 on 20 Meters CW as was the two previous cards shown here. The card was posted from Tampa and only cost one penny stamp! Swan Island now counts for Honduras and is no longer a separate DXCC enitity.

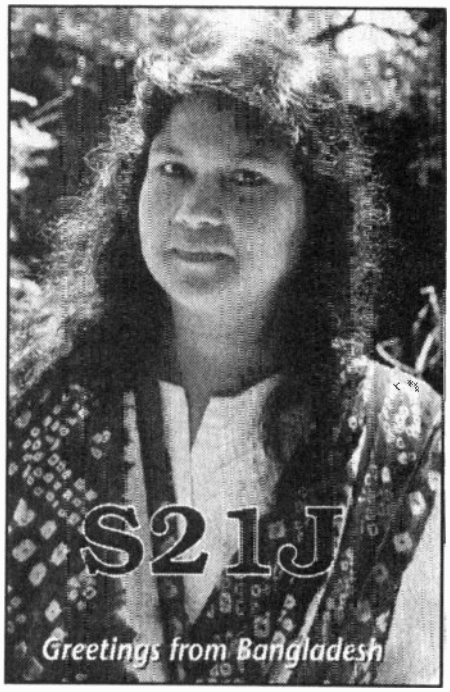
QSL Information

Dick Sisson, W5ONL, says that he has been receiving QSL card requests for VK8AV. Dick said that 30 years ago he was VK8AF in Darwin, and upon his return to the states he handled QSL requests for his own call plus that of VK8AV, who was John Masters, also of Darwin.

The call VK8AV has since been reassigned to another individual. Dick plans to forward the cards to that individual with a plea that he put out the word that Dick is not his QSL manager.

Most of the requests came from European DXers who probably were using old databases that were never updated. It is important when using these databases to understand that such routes may no longer be valid.

Phil Whitchurch, G3SWH, the QSL manager for the 9MØC DXpedition last winter, says that he has answered all cards received to date, or at least those that didn't have some sort of query. This amounted to over 17,000 contacts confirmed. Phil's next project is to work on the cards with queries, concentrating on Japan and the U.S., as they represent the greatest amount of queries. It is going to take several weeks to do this.



Thanks go to the following contributors for this month's column: G3XTT, SM5MX, N2AU, W5ONL, WA6YOO, K7ABV, N7GC, K7ZUM, KØBCN, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), WebCluster (OH2AQ), *425 DX News* (I1JQJ,), *DX News Letter* (DJ5AV), *The OPDX Bulletin* (KB8NW), Internet *DX Mailing List* (VE7TCP), *The Low Band Monitor* (KØCS), *Island/DX News* (N5VL), *The Daily DX* (W3UR), *QRZ DX* (N4AA), and *DX News Sheet* (G4BUE).

I assume some of you worked WR6WR during Field Day. We had an interesting location and Armond's special V-antenna. It really didn't work as expected, and I think this was due to the fact of its low angle of radiation. Had that been a DX contest perhaps we would have had different results. Very interesting antenna, however. But don't expect to install one in your backyard as each of the two legs was 500 feet long. Fall is on the way. Have you got your antennas ready for the DX contest season? De John N6JM.

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(800) 854-6046
Marv, K6VIV, Mgr.
Victory Blvd. at Buena Vista
1 mi. west I-5

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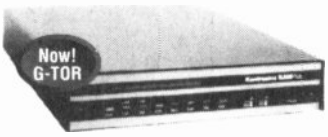

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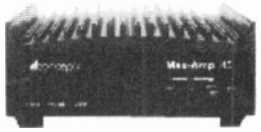

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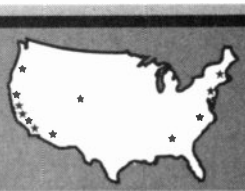

QSL managers

1AØKM —IKØFVC
1X5AA —W3HNK
3B8DB/3B7 —3B8DB
3C5DX —EA5BYP
3E1DX —NØJT
3W7TK —OK1HWB
3X2RO —OM3CGN
3ZØAIR —SP7LZD
4K8ØADR —4J9RI
4K8F —UA9AB
4K9W —DL6KVA
4KA5CW —4J9RI
4U1WB —KK4HD
5B4/G3VMW —G3VMW
5B4/G3ZEM —G3ZEM
5B4/RA3CQ —YL2KL
5B4/RZ3BY —YL2KL
5B4/T97M —K2PF
5H3DD —WØRA (20-25 July 1998 only)
5V7FA —F6FNU
5W1PC —WH6XY
5W1SA —JH7OHF
5X1T —ON5CT
6KØT —DS4CNB
6M5DX —HL5CL
6Y5MC —WA4WTG
7Q7DC —WA6IJZ
7X2RO —OM3CGN
8J7BSJ —Bureau
8P6CV —KU9C
8P9CW —VE3BW (1987 only)
8P9JJ —K7BV
8Q7JD —GØEZU
9A/S55A/P —S55A
9A2U/P —9A3ZA
9A7C —KA9WON
9A8P —9A1AKL
9G5ZM —G3ZEM
9H3AY —G3SDG
9H3DN —LA2TO
9H3IN —HB9DLE
9J2JF —JA2BOV
9K2RR —KU9C
9M2RY —N4JR
9N1FP —RU6FP
9V8WW —9V1WW (Direct only)
9Y4VU —W3EVW
A22/WØYG —W0YG
A35RK —W7TSQ
A92GD —K1SE
AJ2U/VP9 —AJ2U
BI3H —W3HC
BI4C —W3HC
BI4M —W3HC
BOØK —BV2KI
BV3/DJ3KR —DJ3KR
C4ØM —5B4AFM
C6A25CR —C6ACR
C6A25FV —C6AFV
C6A25GR —C6AGR
C6AJR —W8GEX
CH3EJ —VE3EJ
CK3MP —VE3CPC
CM8VP —HI3JR
COØXE —XE1CI
CO4BM —CT1ESO
CQ2P —CT1EEN
CT98EEN —CT1EEN
CT98ETT —CT1ETT
CU9L —CU3EJ
CY9AOE —VE1AOE
DAØHRO —DL6KVB
DK/MU0BKA/P —K4ZLE
DU1/DL5ZAH —DU8ARK
—I2YDX
DX2B —VE7DP
DX3F —VE7DP
DX6P —VE7DE
E21CJN —W3PP
EA5AOR/3 —EA5KB
EA6AEI —EA3DUF
EA8/DJ9HD —DJ9HD
ED1FP —EA1ATT
ED2IZO —EA2URV
ED7IFF —EA7DBP
ED9DVC —EA9JS
EF1IAT —EC1BXI
EI/EA4ECF —EA4ECF
EI4VVF/P —WØGLG
EJ3ER —EI2ER
EL2AB —IKØPHY
EL2DT —IKØPHY
EP3HR —I2MQP
ER7A —ER1DA
ESØK —ES8AF
ES5RF/Ø —OH2LVA
ET3BT —K1WY
EW/K4NAN —K4NAN
EX8F —DL8FCU
EY8MM —K1BV
EZØAB —UA4FAO
F/ON4BDS/P —ON4BDS
FG/DJ6SI —DJ6SI
FM5GU —WA4JTK
FOØFR —K6SLO
FS/N7KG —N7KG
FS/K7ZUM —K7ZUM
FT5XN —F6PEN
G8Q —GØSAH
GBØON —ON4ON
GB2MRI —GI3FFF
GD3IZD/P —G3IZD
GI6YM —K1WY
GSØAYR/P —GMØJHF
GSØEEO/P —GØOCA
GS7UEG/P —G7DKX
GU8D —G3LZQ
H2ØA —5B4SA
H22A —YL3AF
HBØ/DL0HUN—DLØHUN
HBØ/HB9LEY —JH1BSE
HBØ/MU0BKA/P —K4ZLE
HC1MD/HC4 —K8LJG
HC8N —AA5BT
HFØPOL —SP3BGD
HH2/KCØARG —F6DJB
HP3XUG —KG6UH
HR2/KD2IX —KD2IX
HSØJA6GIJ —JA6LCJ
HSØZBS —HB9AMZ
HZ1AB —K8PYD
IA5/IZ5BTC/P —IZ5BTC
IC8/IC8OZM —IC8OZM
IC8/IZ8ANA —IZ8ANA
ID8/IZ8BRI —IK8WEJ
IH9/IT9BLB —IT9BLB
IL7/IK7BRX —IK7BRX
IMØ/ISØJMA —ISØJMA
J48CT —ON5CT
J48ISL —SV2AEL
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J6DX —N9AG
JI6KVR/6 —EA5KB
JT1KAJ —JA1YAR
JU6MTZ —JT1CJ
JU7ARDF —JT1KAA
JY9QJ —DL5MBY
K6ST/KL7 —N6AWD
KG4TO —N4TO
KH8/N5OLS —N5JA
KL7/K6ST —N6AWD
KL7/W6IXP —N6AWD
KL7Y —N2AU
LU2CP/CX —CX6FP
LV4V —LU4VZ
LX/MUØBKA/P —K4ZLE
LX6T —LX1KC
LY1ØXJ —LY3BA
LY6ØRMD —Bureau
M8F —G3PMR
M8N —G3WOI
MMØ/DJ6AU —DJ6AU
MM8Y —MØARK
MUØASP —F5SHQ
MW8Z —G5LP
N2NL/KH2 —W2YC
OA4/DL9GMM—DL9GMM
OHØBH —OH2BH
OHØMDR/1 —OH1MD
OHØTA —OH2TA
OJØAU —DL6LAU
OJØVR —OH1VR
OL8HQ —OK1MD
OX3LG —OZ2ELA
OZ/DL5ME —DL5ME
OZ/DL6DH —DL6DH
P29BW —N5FTR
PJ8/K4LMY —K4LMY
PYØFA —PY4KL
R1OTA —RA1QQ
RA1QQ/1 —RA1QQ
RK1B —RV1AC
RK3AWL —W3HNK
RW1ZZ/P —RA1QQ
RZØLWA —RWØMM
RZØLWA —RWØMM
SK7DX —SM7DXQ
SN6F/1 —SP6ECA
SO7TN/1 —OK1TN
SP6CZ/1 —SP6BZ
SP6YCI/1 —SP6BZ
SV1BRL/8 —SV8AQY
SV5/G4OBK —G4OBK
SV9/G4ZFE —G4ZFE
SV9/EA3CB/P —EA3CB
T2ØYK —JA2ECL
T32Z —N7YL
T88AD —JR1MLU
T88AJ —7N3AWE
T88HC —JA1HCY
T88LJ —JM1LJS
T88ND —JA4DND
T88RK —JA1BRK
T97M —K2PF
T99DX —DL3NCI
TAØ/TA3YJ/P —TA3YJ
TAØ/TA3J/P —TA3YJ
TF7/DL3KUD —DL3KUD
TF7GX —K1WY
TF8GX —K1WY
TJ1HP —F6FNU
TL5A —PA3DMH
TMØBB —FB1AZH
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UEØZZZ —RZØZWA
UE1CIG —RZ1AWD
UN7QF —W8JY
V26E —AB2E
V26GG —W5AO
V26TT —K5TT
V26VG —GM3UTQ
V31KR —K5KR
V31MP —W5ZPA
V31MX —KØBCN
V31YK —W5JYK
V44KAI —K2SB
V5/ZS6YC —WØYG
V73AT —K2CL
V73GT —WF5T
V73LB —K1ZUT
V73UB —K1ZUT
V73ZO —JA3FGA
VE1AO —VE1VOX
VE3BW/HR6 —VE3BW
VK9CE —JE5WJM
VK9NO —JJ8DEN
VP2EY —HB9SL
VP5/CX4CR —CX3CE
VP6TC —K6RPF
VP6YL —K6RPF
VQ9GB —K7GB
VR2/K8PYD —K8PYD
VU2NTA —N2AU
W7A —W7WK
W7I —N7FL
WH2M —JA7FWR
WP2Z —KU9C
XO1CWI —VE2CWI
XU2FB —N4JR
XUF2B —N4JR
YB2BRW —W6MD
YE2B —YCØFTD
YI1HK —KK3S
YI1SEA —WA3HUP
YJ8PU —KF4VPU
YM75TA —TA3YJ
YR2TRS —YO2KJW
YS1RR —DJ9ZB
YW5LB —W4SO
Z21/WØYG —WØYG
ZD9IL —ZS5BBO
ZF2AH —W6VNR
ZF2NT —N2AU
ZK2CK —HB9BCK
ZL1MFW —ZS1FJ
ZL1SCQ —DL6DK
ZL1SCR —DL6DK
ZL8RS —ZL1RS
ZPØZ —W3HNK
ZS8ØNRM —ZS6Y

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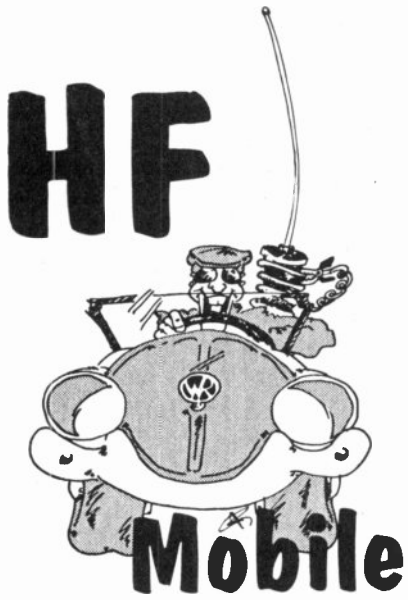
TU2KC —Radio Club 43 BIMa, B. P. 54, Abidjan 12, COTE D'IVOIRE
V63AO —Nishi Nishimura, P.O. Box 607, Kosrae, FM 96944
V63BR —Atson Nakayama, P.O. Box 305, Chuuk, FM 96942
XO1CWI —West Island ARC, P.O. Box 884, Dorval, QC H9R 4Z6, CANADA
XX9ER —Freeman Cheong, P. O. Box 6018, MACAU
YB3ZES —Club Station ORARI Lokal Surabaya Timur, P. O. Box 4025, Surabaya 60401, INDONESIA
YCØAZ —Andreas Wisnu Widjaja, Jalan Budi #19 RT 003 RW 05, Cawang III, Jakarta 13630, INDONESIA
YC3DX —S. Faisal, Argopuro 88, Tulungagung 66261, INDONESIA
YC6DEM —Dr. Eddy, D. M., P. O. Box 6, Langsa 24400, INDONESIA
YC9BAS —Nyoman Dodi Irianto, Spd., Jl. Gajah Mada, Peguyangan 6 I/7, Singaraja, Bali 81112, INDONESIA
YC9LQA —L. C. Salean, Jl. Niaga No. 71, Larantuka, Flores Timur, NTT 86216, INDONESIA
YC9XOI —Frans Renwarin, P. O. Box 175, Fak Fak, Irian Jaya 98611, INDONESIA
YD3BMB —Adi, P. O. Box 4025, Surabaya 60401, INDONESIA
ZK1KTT —OK DX Foundation, P. O. Box 73, 293 06 Bradlec, CZECH REPUBLIC



Les Cobb, W6TEE
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• E-mail: lcobb@compuserve.com •

Hello again. If you drop me a line, note that my address has changed since the August issue. My county, grid square, and e-mail address are unchanged. I was only on HF mobile once while moving. That was on a 20 Meter net on a short trip out of town. I hope to talk about the usefulness of nets to mobile operators in a future column.

I did get mail about the first column. Most of you used the CompuServe e-mail address above. Some that stopped at my Amateur Radio web page, http://home.pacbell.net/lcobb/, used my guestbook, or my e-mail on pacbell.net to forward comments. I also received a few letters. All of your comments were greatly appreciated and I will share some this month. These suggest more subjects for this column.

The first through the gate after the August ***Worldradio*** appeared was an Email from Frank Clements, W6GZI. Frank wanted to be sure that we knew about the Sams Radio Hams, an Amateur Radio RV group, affiliated with the Good Sam RV Owners Club. They are centered in Southern California and have a weekly net on 40 Meters and monthly campouts. For details, there is a link to the Sams Radio Hams web page from mine. I am a Good Sam member myself, and intend mentioning a number of RV nets and RVing with HF mobile in the future.

Joe Park, WB6AGR, a ***Worldradio*** Lifetime Subscriber since the early 70s, has loved and operated mobile since about 1964. Joe is retired now and will be traveling full time in a 30' 5th wheel trailer with his wife, Kathi, KF6AFF. He plans to check in to 80, 40, and 20 Meter RV nets as much as possible. Joe said, "I am looking forward to reading future columns on HF mobile and picking up some good information."

Jim Ackerson, WØRFO, in Florida, HF mobiles in a Jeep Grand Cherokee. This caught my eye since many of my Amateur Radio friends have Cherokees and other 4X4s, and I drive an S-10 Blazer.

Rick Cochran, WO8L, is a county hunter but also enjoys 20 Meters on his way to work. He is disappointed that there isn't a place for mobiles to congregate on 20 as early as 0730 Eastern. He says the County Hunter Net is generally not up then. He would like to see a designated mobile frequency. Rick said, "The mobile column in ***Worldradio*** is most welcome."

Worldradio's official County Hunter, Ace Jansen, N3AHA, welcomed me and mentioned some possible overlap between our columns. It's a good thing that we will be in alternate months. We short attention span folks won't know the difference. I just saw September ***Worldradio***, and Ace wrote half the magazine!

Bob Stewart, K2ZCE, chases DX on 17 or 15 Meters, but likes to ragchew at times. He suggests having information for beginners to HF mobile in the column. He also recommends a book, "The Modern Amateurs Mobile Handbook," by Dave Ingramm, for experienced HF mobile ops and beginners. I am not aware of this book, but I will look into it.

Bob Boehm, N8EXF, says his favorite mobile bands are 20, 17, 12, and 10 Meters. He has a web page at www.qsl.net/n8exf.

Tom Barnham, AA6TP, uses his HF mobile to avoid strife with the neighbors. He does weather forecasting on a morning 40 Meter marine net and would otherwise be a regular with the neighbors.

Don Stribling, KH6DX, operates mobile on all HF bands, but especially enjoys 160 Meters where he has WAS and 63 countries.

Dick Peery, K4CFT, remembers working 10 Meter AM mobile with a Stancor transmitter and a Gonset converter in a 1948 Chevy. I don't know about the Stancor, but I could step out to the garage and find a couple of Gonset converters. Actually, 10 Meters was only an idle rumor when I got my ticket in 1952, due to the lack of sun-spots.

Dick Kovich, KD4YOT, says he has been a Ham for five years and does practically nothing but mobile DX CW. He reports 6,309 DX CW mobile QSOs with 178 countries and 136 confirmed. I will save his comments on how he operates CW while mobile, and comments by others on the same subject for next time.

I also left out for now the comments on rigs, amplifiers, and antennas, and on net frequencies, that these folks made. Let me hear from you. 73, Les

SEANET '98 news

The organizing committee of SEANET '98 has negotiated a lower room rate for the convention hotel. A room rate of $140.00 per day will now apply to both single and double occupancy. Additional perks, such as free breakfast will still be available.

The will also be a 6 Meter station on the air at SEANET '98. The stations will consist of a Yaesu FT-602B at 10 watts. Transmitting frequencies will be 50.085 MHz for CW, and 50.115 MHz for SSB. Receive will be 50.0 to 51.0 MHz. The antenna will be a 6-element rotatable Yagi. The station will operate from 0200U, 13 November until 0700U, 15 November.

More information is available by Email from S. Sasaki, 9V1YJ, at: msksg@com.sg

Search And Rescue Communications

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Salt Lake City, UT 84147
jw@desnews.com

Do you ever feel angry when you're stuck behind a bunch of cars, all attempting a left-hand turn across three lanes of heavy rush-hour traffic? Do you feel like walking up to each driver to explain that a right-hand turn, with the traffic flow, would allow them to circle the block and then make a turn at a traffic light and get us all on our way in less than five minutes? Have you watched helplessly as one of those cars, prompted by some silly fool in one lane who actually stops to allow the turn, charges through to the next lane only to discover that a car in the second lane didn't stop? Isn't it frustrating to witness the accident, knowing it shouldn't have happened?

The problem with us humans is, well, we're human. It would be pretty boring if we were all alike or close to all alike. It's our diversity that's the challenge. Let's face it: some drivers are excellent and some might need to read the motor vehicle manual on a regular basis.

The process of life allows us to make mistakes (we all do) so we can learn new things, we can all gain experience, and sometimes we're allowed to pass along ideas to others. It's also important to note that we all are entitled to an opinion. We all have one and our opinion is no where near identical to any other person's opinion. That's why I love hearing from readers (preferably by Email). Usually the message begins with a compliment, such as "I really liked it when you discussed ID cards." Often the message will contain some personal insight concerning the topic at hand. The BEST part of the message is when a reader will point out a difference in opinion. These comments start out: "But I think you're off target when you suggest that we . . . . and here's what I think."

It's not the agreement that causes me to learn, but the disagreement. Think about it. If you like my opinion in these columns, you're possibly of a like mind or have shared like experiences and my words reinforce what you already believe to be a 'best practice.' Sometimes you'll take a column you like and use it to help convey a 'best practice' to others. It's not that you aren't an expert or that your opinion isn't valid; it simply helps to show that someone else is preaching the same sermon in a far-away place.

But consider those times when you've taken something you read, made a loud exclamation, and taken umbrage with a comment or idea. "That fool," you said aloud. "Who does he think he is suggesting that we might do it that way when any simpleton knows the right way is our way." And you're probably correct. It's great when you share your 'umbrage' and offer insights as to why your 'best practice' is better or easier to undertake than my 'best practice.' Most of the best ideas I have came from someone else. It's called learning.

Sometimes I can take two diverse ideas and combine them in a unique way that causes the sum to be greater than the parts. I would hope you do the same with the ideas you observe. Every month I scan a significant number of emergency service publications, technical radio magazines, hobby newsletters, and the like. I love to poke around the Internet and discover ideas from other groups — local and worldwide. It's how I learn. I glean ideas.

Oft times I disagree with what I read. If possible I do write the author and allow my opinion to be heard. Sometimes (more often than I admit) the disagreement causes me to shift my opinion when, after thought, research, and discussion, something called 'learning' takes place. Other times, my disagreement and the subsequent consideration cements my opinion more firmly in place.

My daughter is a newly licensed driver. Shortly after her completion of driver education and the passing of the driver license exam, she would point out those errors I would commit. "Dad," she would coax, "you didn't quite come to a complete stop." Or "Dad, you didn't check the blind spot before you pulled into the traffic lane." This is what I call learning — 'phase one.' This is where you've just achieved a milestone (such as a license) and you're excited to share what you know and 'help' the less educated.

"Phase two," which is what my daughter has just entered, is when the newness has worn off and you begin to observe and ask. She was with me behind the above mentioned line of cars turning left. She asked, "Why are you upset, they need to go west and that's the only way." It was a learning moment when I explained the wisdom of a turn with traffic and using the lights to make a turn at the light around the block. She then commented about driving around the block would waste gas. "More than all of us behind these cars waiting for 10-15 minutes?" I asked. We didn't know the answer to that, but it gave us a chance to consider 'best practices.' Phase two, then, is asking questions.

"Phase three" learning happens when you begin to observe and form your own 'best practices' — or when you take observations, turn them into actions, and make course corrections.

Fortunately we are usually allowed to learn 'best practices' with-

out serious injury. If we watch a good driver, we learn to avoid unnecessary wrecks. If we note that a number of cars in the next lane are stopped for a pedestrian crosswalk, we learn it might be good if we stop.

Several months ago I was looking out of my window onto a moderately busy city street with a well-marked crosswalk. The cars in the left lane had stopped, as is the law, for a pedestrian. The pedestrians proceeded across the street. As they entered the right lane, a car struck them both and I watched as they literally flew through the air and landed a significant distance down the lane of traffic. It was not a pretty scene to have witnessed.

After several of us called 911, we went to see what help could be offered. The paramedics were near and they quickly arrived after several bystanders had commandeered blankets to aid the injured pair. What left a greater impression was the young driver who, being very distraught, kept saying that she had been in a big hurry and wasn't paying attention. I have often watched as this scenario is nearly repeated (with close calls) as cars hurry through the crosswalk, narrowly miss pedestrians, travel an additional half block, only to stop at a red light. They're in a big hurry, with the potential to injure someone, only to stop several seconds later and wait at a red light.

I wonder — do any of these 'near misses' ever cause these drivers to reflect and consider their 'best practice' of how they navigate downtown streets? Witnessing the accident and seeing the blood-stained asphalt for weeks afterward certainly created an awareness for pedestrians in my driving. I cannot imagine the pain it would cause in another's life to be left seriously injured because of something I did. I was glad to have learned by observing.

Here's your challenge! Observe, evaluate, and consider whether your opinion requires modification. When, for example, you hear a net control station, carefully consider what takes place and decide if you would do it better, the same, or worse. What might you try to improve the process? In all cases, consider what irritates you and how you would improve upon those irritations. Some years ago I thought a local swap net seemed to drag on for hours. Often signals were garbled into the repeater. I volunteered to do the net and was pleased to have then had the opportunity to conduct 54 consecutive weekly nets.

I was able to do two things. First was to figure out how to move through the roll call quickly, record the listed traffic accurately, and keep the net from going to sleep. In the first month, I got calls telling me how much they enjoyed how the net moved along. Second, I considered the often poor signal into the repeater (before it was moved to a higher location) which caused confusion as relays were sought and attempted.

I used two radios and on one, pointed my beam across the valley. I took a stereo headset and wired one radio to the 'left' side and one to the 'right' side. (I learned, by the way, that I favor my right side ear!) On the left side I put the normal radio's (repeater in, repeater out) audio. On the right channel, the radio monitored the repeater input frequency. Often I was able to better hear the weak station's uplink than the repeater could.

After a month or so, I discovered that a remote base on a mountain opposite the repeater could be set up on the repeater input. I was now able through my 'stereo' setup to listen to two good relay sites — the repeater and the remote base, each of which heard the valley 'differently.' It was neat when I could pick up scratchy repeater stations without asking for relays or repeats. Most of the time these were "no traffic" checkins and I could quickly move through the roll call.

This was a great learning experience and a technique that Ive used during practice and real emergencies. Monitoring a repeater input from a remote base has made the NCS task much more efficient when I've been assigned that role. This also helped a couple of others who called to complain about the remote base configured for the input and not the output. They said, "That's dumb. Why not listen to the repeater output?" When I explained the stereo headphone setup and how it improved my NCS role, they moved from 'that's dumb' to 'that's a neat idea.' I believe they have added the technique to their emergency communications 'best practices' toolkit.

The reason I share this particular example is that I'm like the rest of you. I hate to tell stories (and there are many) about when I was in error and admit when my opinion was not as well thought out as another's opinion. So I do relish your comments and opinions — you help me learn. When you've discovered an idea or have an opinion that differs from mine, please take the time to let me learn from you. It's a good thing when we share opinions and realize that in the proper mindset, we both benefit from the discussion.

Now if I can just get those cars to make right-hand turns!!!! Until next month best wishes from Salt Lake City!

YLs on the air

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YL contests

JLRS will sponsor the 27th JLRS Party Contest this fall, with the phone portion to be held from 0300UTC, 26 September, to 0300U, 27 September 1998. The CW portion will be held from 0300U, 03 October, to 0300U, 04 October 1998. Logs go to Kuniko Iha, JH6BFF, 5-34-72, Obiyama Kumamoto City 862-0924 Japan, and must be received by 20 October 1998.

YLRL will sponsor the YL Anniversary Party in October, with the CW portion running from 1400U, 07 October, to 0200U, 09 October. The phone portion will run from 1400U, 22 October, to 0200U, 24 October 1998. Logs go to YLRL Vice-President Cleo Bracket, KØJFO, 810 Towne Square Drive, Fremont, NE 68025-7000, and must be postmarked within 30 days of each portion. If you need complete rules for these contests, please let me know.

YL meetings

The 41st JLRS annual general convention was held at the Nankai South Tower Hotel in Osaka, on 25 and 26 July 1998. On Saturday night, more than 100 YLs and 50 OMs attended the YL-OM banquet, and they enjoyed playing Bingo, dancing the traditional Kawach Ondo, which is a Japanese line dance, and many wonderful eyeball QSOs. Mr. Hara, JA1AN, President of the Japanese Amateur Radio League, was an honored guest. Kyoko "Miyo" Miyoshi, JR3MVF, served as Chairman and read greetings from several DX members.

On Sunday morning, the YL Forum was held, with 97 members present. Among the items discussed were on-air activities, the JLRS newsletter, and the future of JLRS. The forum was closed with a promise to meet at the next convention, to be held the last weekend of July 1999, in Beppu, in Ooita Prefecture. JLRS President Nobuko "Ton" Uchiyama, JR6XIX, extends a welcome to all YLs to attend. She says, "Please come and join us!"

There will be many DX YLRL members attending the 1999 YLRL Convention in Long Beach, California, on 30 and 31 July. Since the meeting will be held on the Queen Mary, several people have already made their room reservations as there is a limited number of rooms and a large attendance is expected. If you need more information, contact Martha Barron, KA6TYO, at 8225 Devenir Ave, Downey, CA 90242 or via e-mail at marthabar@ aol.com.

The Sunflower YLs have scheduled a meeting at the Kansas ARRL Convention in Wichita on 3 October. Just look for the YLs wearing sunflower vests or check with Sherry Weir, KBØSQQ.

QCWW certificate

In the last column I mentioned that Dot Young, W1TGY, 47 Longwood Ave, Augusta, ME 04330, is the new Certificate Custodian for QCWW. I've been asked about the rules for obtaining the certificate, which requires contact with 20 QCWW members. All contacts must be after 01 November 1979 and must be with a member of QCWW at the time of the QSO. Any amateur bands may be used, but neither repeater nor cross band contacts are allowed. Contacts on the QCWW Net do not count. The application should have the calls listed in alphabetical order and you need to include the name, date, time, and frequency of each QSO. Please enclose 50 cents to cover the cost of mailing the certificate and enough money for the return of QSLs, if you forward the cards. You can just send a photocopy of the cards or your log.

Ruth Tollefsen, LA6ZH

Ruth celebrated her 80th birthday party this spring at her son's home in Iceland, with her entire family gathered around. Then this summer, another son hosted a party for Ruth's Amateur Radio friends in Norway, and one of the attendees was Unni Gran, LA6RHA. Unni learned a lot about her friend at the party and has shared this information below.

"Ruth's story begins in China, 80 years ago, where she was born to an American mother and a Norwegian father. The radio-active part of her story began when she escaped to Sweden during WWII. As a refugee, she spent time where 'the boys in the wood,' (an expression for the boys in the Norwegian resistance army) were being trained in radios and Morse code). As she listened to them, Ruth's interest in radio was awakened.

"But it was to be 15 more years for this interest to be turned into a reality. At that time her son Nico was 15 years old and a keen scout. He was required to learn a trade and chose Morse. Of course, as a good mother, Ruth observed her son using this new language. The Morse signals aroused some memories from the war and she decided to pursue her interest in this communication.

"Ruth started on a course but then continued with self-instruction in theory and code at home. In 1961, she passed the exam without any difficulty. Her first HF rig was purchased and the first sked was made. The first QSO outside Norway is quite a story. Her son Nico, now LA5CH, had built a small transceiver of his own. One day he heard Ruth calling CQ on CW from her shack in the basement. An idea flashed through Nico's mind and he quickly sent 'W6—' back. Ruth answered QRZ and Nico continued. In the basement, Nico could hear Ruth rushing to her feet and running up to his room, shouting with joy that she had nearly got an 'American on the hook.' Then Ruth ran back down to the basement for another try. After three times, Nico felt he had to admit his crime to his mommy. What

Ruth said is a secret between her and her son, but she is known to be a lady with a great sense of humor.

"Ruth and her husband Tor now live in Oslo. Through her son Nico, Ruth got in contact with LA5LG's charity fund for disabled amateurs as a 'temp.' The temporary job grew into a permanent job for 25 years. In addition to this, Ruth has served as a QSL manager for NRRL, the Norwegian Radio Relay League, for 3 1/2 years. She has also served on the HQ board for NRRL.

"In 1993, Ruth joined the LA-DX Group and was asked to serve as treasurer. When LA6VM asked for help with QSL cards for the 3Y5X DXpedition, Ruth volunteered at once. She took a bag with QSL cards home and many more bags followed that one. She and Tor even took QSL cards up to Lofoten where they spend their summers and the local post office finally learned what an IRC is!

"Ruth was the first YL to become a Knight of the Golden Key and was later commissioned as Commander in 1994. She is also an honourable member of NRRL.

"Her 80th year hasn't slowed Ruth down. She's been busy working on the Svalbard Polar YL Meeting, and after the two birthday parties she received another present. Turid Bjerke, LA9THA, a friend of Ruth's and a co-organizer of the YL meeting, has a son who is a glider pilot. He took Ruth up for some maneuvers, and Ruth reported she was 'literally and figuratively in 7th Heaven.' Bjorn, the pilot, had only great things to say about Ruth after they landed, as do her many friends in Amateur Radio."

Inside Amateur Radio

Necessity is

LENORE JENSEN, W6NAZ

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.*

John Carr, W2NQ, thought he'd heard every crazy idea any Ham had ever dreamed up. That is, until the day he heard WB6NOA's call on the air requesting a report.

"I answered him and gave my location as Salem, Oregon. He came back with great surprise and explained his name was Gordon West. He was teaching a class in Amateur Radio in Southern California. All members were listening.

"When I asked why he was surprised to make contact with me, it was my turn to be surprised. Gordon explained he was teaching the theory of using a device which 'matches the transmitter to the antenna.'

"He had asked his class which metal object in the room might be used for an antenna. One student asked, 'What about this metal folding chair I'm sitting on?' It seemed to be a big joke.

"Gordon, a good sport, proceeded to put the chair on a table, and attached it to the matching device and the transmitter. The class waited expectantly to see it perform, so Gordon gave a call with his microphone. I imagine he felt rather foolish until he heard my call answering his.

"And that's not all. I then heard a station in Antarctica calling me, wanting to send a message to my area. I asked him if he had been able to hear Gordon. Oh yes. So the two of them made contact. Another came on from Alaska, making it a three-way.

"Now I've heard everything—a metal chair for an antenna!"

Computers & Basic Stuff

C.H. Stewart, KD5DL
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BASIC VHF DX

It is interesting that most people entering our hobby now enter at the Technician level. Approximately 75 percent of our newest amateurs are coming in as Technicians. And while all amateur classes have at least some VHF and UHF privileges, Technicians must work exclusively in the VHF bands and above. ("Tech Plus" amateurs, those who have passed a code test, also share HF Novice privileges). FM is the mode of choice for most Technicians. Many of the Skywarn and Amateur Radio Emergency Service volunteers are quite content sticking exclusively to FM. As long as they are in line of sight of a working repeater, or are close enough to work each other direct, they are perfectly content with their equipment's performance.

What some Technicians might not realize is that VHF is not a line-of-sight-only proposition. For decades amateurs have been using VHF and UHF for routine and reliable communications to distances of hundreds of miles beyond the horizon!

Since the 1950s, both commercial and amateur stations have experimented with and used tropospheric and ionospheric scatter propagation. Much of the commercial message traffic between the U.S. and Europe, for example, has been sent via tropospheric scatter from Canada through relay stations in Greenland and Iceland. Using transmitter power levels of 20kW or more, signal reliabilities up to 99.9 percent were routine.

Of course, amateurs are limited to power levels well below 20kW, but the principle is the same. The March 1957 *QST* presented a primer on tropospheric scatter techniques by Dean O. Morgan, W2NNT. In his article he said that amateurs, limited to relatively low levels of power, could still take advantage of tropospheric scatter for reliable communications well beyond line-of-sight ranges.

Here "reliable" also means "consistent." While DX is possible with another phenomenon, tropospheric ducting, it is not considered a consistently reliable method of communication. Ducting is rare and rather chancy, but it's nonetheless thrilling to participate in it when it occurs.

Morgan's *QST* article included instructions for using a nomogram for estimating propagation losses. His entering arguments were frequency and distance. By operating a station efficiently enough to overcome the losses, communications would be possible.

Morgan pointed out that transmitter power, antenna gains at both ends of the system, line losses at both antennas, the distance between them, receiver input power and the signal-to-noise ratio were all factors to be considered when designing a VHF DX station.

What Morgan started in 1957, D.W. Bray, K2LMG, continued a few years later. In the November 1961 *QST*, Bray, of General Electric's Advanced Communications Center in Ithaca, NY, published another method VHF enthusiasts could use to calculate the working ranges of their stations. His article, "A Method for Determining VHF Station Capabilities," was subsequently incorporated in the ARRL's VHF Manual and Antenna Handbooks.

Bray called Morgan's "propagation loss" "path loss." If station gain exceeded path loss, he said, then communication was possible.

According to Bray, path loss is not a linear loss. For a signal traveling a tropospheric path, the loss in signal strength is quite rapid out to 40 or 50 miles, then tapers off to about the 250-mile range where it rises slightly until about 300 miles, then it tapers down again.

Bray's article included graphs for losses at 50 percent and 90 percent of the time for the path loss for signals at 144, 220, 432 and 1296 MHz. The graphs were used with other nomograms and calculations to determine how well a DX station should perform.

For example, Bray's graph showed that station gain would need to exceed 198 dB for reliable communications at the 200 mile range, 212 dB for 300 miles, 229 dB for the 400 mile range, and 242 dB for 500 miles. Of course, the greater the station gain over path loss, the stronger and more reliable the signal.

Bray also qualified the importance of band and mode. The lower VHF frequencies, 50 MHz and 144 MHz, for example, required less station gain for a given distance than the frequencies in the UHF bands. He also provided data that showed Morse code had a better gain factor than voice modes. Generally, the lower the bandwidth, the better the gain. SSB would be better than AM, and AM would be better than FM.

He also introduced antenna height gain to the calculations.

To illustrate his approach, Bray computed the path loss for a station 248 miles away to be 203.5 dB. For a transmitting station using 250 watts of power (22 dB), through 100 feet of RG-8 coax (-2.5 dB), to an antenna of 2 stacked 28-foot-long Yagis (23 dBd) with 3.2 dB height gain and a receiving station using a 14-foot Yagi (17 dB), a receiver sensitivity of 172.5 dB, a receiving antenna height gain of -3.2 dB, and

adding 7 dB for signal fading, the station gain is 225 dB.

The difference between station gain and path loss is 21.5 dB. The receiving station should easily hear the transmitting station with a signal strength of 3.5 S units.

Publishing a BASIC program to duplicate Bray's graphs, tables and nomograms is something most of us wouldn't want to take on. Fortunately, we don't have to. Al La Placa, W2WW, has already done it for us.

Al has an Apple (Mac) version of a program in QuickBASIC and one in Excel he calls "VHF/UHF Link-Budget Analysis," for 50 to 2304 MHz. He says his program agrees fairly accurately with Bray's work.

If you have 24-bit QuickBASIC on your Mac, or Excel for either Mac or PC, and you would like a postpaid copy of Al's Link-Budget Analysis, send $8 to Al at P.O. Box 233, Centereach, NY 11720-0233.

Again, you must have Microsoft's QuickBASIC for Mac with 24-bit addressing, or Microsoft Excel (either Mac or PC version), to run the program. Be sure to specify which version you want to receive.

Although Al's program is quite lengthy, more than 57 kB, here is his BASIC routine for tropo path loss for a given frequency and distance:

```
10 INPUT "FREQUENCY (MHz) ";F
20 INPUT "DISTANCE (SM) ";DX
30 PL= 55.5 + 20 * LOG(DX/0.62137)/
   LOG(10) + 30 * LOG(F)/LOG(10) +
   572.9577951*(DX/0.62137)/8497.3363
40 PRINT "PATH LOSS = "; INT(100*PL)/
   100 ;"dB"
```

Back to station gain: One of the most effective ways to add gain is to use an antenna that has significant performance gain over another. At VHF and UHF this usually means using a well-designed Yagi beam. Unfortunately, gain given in ARRL nomograms and gain claimed by some antenna manufacturers aren't always the same. In fact, gain figures given by antenna experts often don't agree with each other!

For example, Bray's article gives a simple rule of thumb: antenna gain is roughly 10 times the boom length in wavelengths or, in feet, G=(L*f*N)/98, where L is boom length, in feet, f is frequency in MHz, and N is number of antennas in a stack. This gain is a power ratio, and is converted to dB by: 10 * LOG((L*f*N)/98)/LOG(10).

La Placa found two other formulas to determine Yagi gain. The first, he says, is from the I.T.T. Reference Data for Engineers: G(dBd) = 10 * LOG(4 * PI * AE / WL^2) / LOG(10), where PI is 3.14159, AE is effective aperture in square feet (FT*WL/2), and WL is wavelength (983.62/Frequency).

He says he can't place the source for the other formula, but it goes: G(dBd) = 10 * LOG(5.4075 * L + 4.25) / LOG(10), where L is the boom length in wavelengths.

A formula I derived from a graph in the ARRL Antenna Book: G(dBd) = 10 * LOG(7.95 + 1.29^L * L^.3227) / LOG(10). Again, L is boom length in wavelengths.

Another reference, a decilog graph in "VHF for the Radio Amateur," by Frank C. Jones, W6AJF, shows another method to derive Yagi gain.

Interestingly, none of the methods agree exactly. In my calculations, I chose to use the method that most nearly matched the ARRL's graph.

With it, then, we can estimate the gain of any well-designed VHF or UHF Yagi having boom lengths of one wavelength or more (six elements or more).

With these listings you can be well on your way to putting your VHF or UHF station on the air as a DX station! Armed with high gain antennas, low-loss transmission lines, sufficient transmitter power, adequate receiver gain, and an efficient operating mode, reliable VHF or UHF DX IS indeed routinely possible! That should do it for this time around. Until next time, stay radio active.

This month's BASIC selections:

```
10 CLS: PRINT "YAGIGAIN.BAS, BY KD5DL, 10/98": PRINT
20 INPUT "FREQUENCY (MHz) "; F
30 INPUT "BOOM LENGTH (ft) "; B: L=B/(984/F)
40 G=10*LOG(7.946*1.2911^L*L^.3227)/LOG(10)
50 PRINT "GAIN = "; INT(100*G)/100 :"dBd"
```

An alternative listing that provides gain for the number of elements in a similarly well-designed Yagi is:

```
10 CLS: PRINT "ELEGAIN.BAS, BY KD5DL, 10/98
20 INPUT "FREQUENCY (MHz) "; F
30 INPUT "NUMBER OF ELEMENTS (6 OR MORE) "; N
40 B=.097*N^1.405: L=(984/F)*B
50 PRINT "OPTIMUM BOOM LENGTH = ";INT(100*L)/100; "FT"
60 G= 10*LOG(7.946*1.2911^B*B^0.3227)/LOG(10)
70 PRINT "GAIN = "; INT(10*G)/10 ;"dBd"
```

Code Testing: Don't Wave it Good-bye!

JIM HAMMOCK, KIØDN,
HANDI-HAM SYSTEM
HANDIHAM@MTN.ORG

This article is not about the code/no-code debate. It is not intended to provide kindling for a rash of heated letters. Like it or not, no matter what the future holds, the Morse code requirements are in the present. In Part One we will discuss the issue of whether exemption and/or adaptive testing is appropriate. Part Two will suggest adaptations for different needs. Part Two will also make suggestions for making the testing process as smooth as possible for examinees and Volunteer Examiners.

Adaptive testing or exemption

The ARRL has prohibited its Volunteer Examiners (VEs) from administering a test they have not passed. One might say, "So what?" It makes sense that an Advanced VE should not grade an Extra written exam. The intent of the ARRL-VEC, however, is to prevent people from grading a code examination they have not passed. This, too, makes sense. Who wants to be told that they failed by someone who did not take the tests themselves?

Why the concern about use of exemptions? Too many people are seeking and using exemptions when accommodation would be more appropriate. Their abuse of the system has started a backlash that may eliminate exemptions for those who really need them. Having a disability does not automatically entitle someone to an exemption or accommodation.

A large number of people, with and without disabilities, will never pass the code or achieve higher speeds. Some people do not need or want the privileges a higher class license will give them. Some people lack the motivation. And others do not have the "knack."

Despite their best efforts and years of practice, some people will never be able to play the piano. But no one suggests that a person who can't play a piano be allowed to play at Carnegie Hall on the basis of a visual impairment. That particular disability has no bearing on the ability to perform. We should apply the same logic to code exemption or accommodation.

Standard or adaptive testing

Morse code tests should be administered with the minimum accommodation required by the specific disability of the person taking the test. The level of adaptation has to be appropriate to the type and degree of the disability. Determining whether a standard or adaptive test is appropriate is not an exact science. An adaptive test is probably not called for if:

Others with the same type and degree of disability have passed the standard exam;

The person is able to take similar tests without accommodation;

The person can perform the tasks required by the code test in other areas of their lives;

The disability is not the true cause of the inability to copy code;

Taking the test does not pose a health threat;

The Doctor's statement on the FCC 610 form has not been filled out and the disability is not readily apparent.

5wpm test

The first code test for anyone seeking a license is the five word per minute (WPM) test. No one may be exempted from this test. The requirement to demonstrate proficiency in Morse code comes from an international treaty, and is non-negotiable. The only allowed accommodation is the use of adaptive testing techniques **where warranted**.

13 and 20wpm tests

The 13 and 20 WPM levels can also be adapted where warranted, but may also be exempted **when required**. Exemption is where most of the questions, difficulties, and heat arise.

Exemptions

Before asking for an exemption, the following points should be considered:

Are there adaptations that would allow the person to take the exam?

Is there a reason, other than the disability, for the person's inability to copy code at a faster speed?

Would a doctor have reservations about certifying that the disability is the cause of the person's inability to copy code at higher speeds?

If the answer to any of these questions is yes, then an exemption may not be reasonable.

The doctor's statement

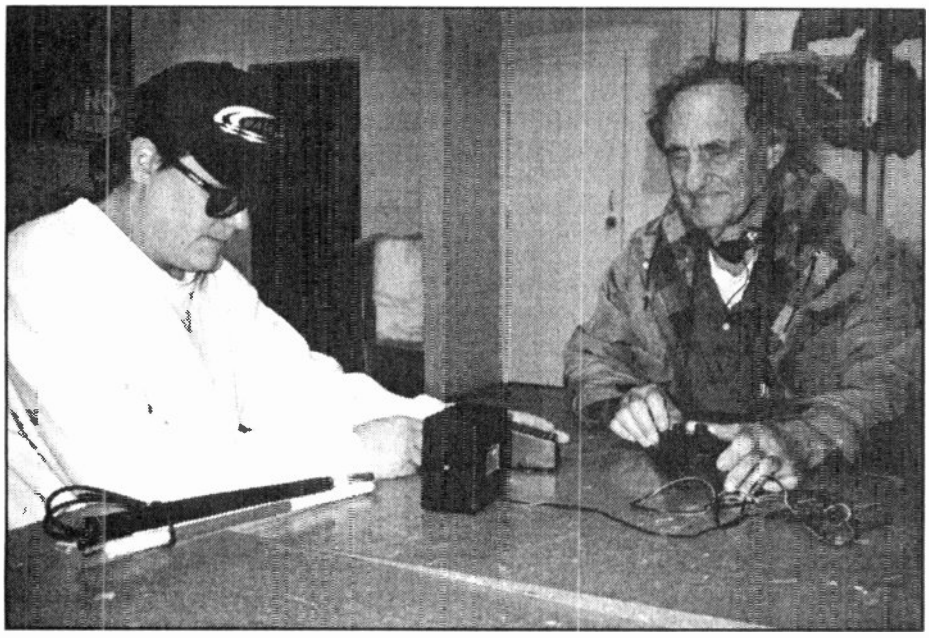
Section 3 of the FCC 610 form is the "Physician's Certification of Disability," and below that, a "Notice to Physician Certifying to a Disability.. One of the most important phrases in the Doctor's Statement is: "I have considered the accommodations that could be made for this person's disability and have determined that, even with accommodations, this person would not be able to pass a 13 or 20 words per minute telegraphy examination." There are very few disabilities that cannot be accommodated by Volunteer Examiners. The "Notice to Physician Certifying to a Disability" lists several accommodative procedures that may be used to test at 13 and 20 words per minute.

Adaptations for specific disabilities

Vision

Considering the number of visually impaired Hams hanging out in the CW portions of the bands, seeking exemption based on only a visual impairment is a stretch. The difficulty comes in copying, and reading back the copy. Here are some suggestions:

Use a computer keyboard or a Brailler. Because a Brailler is noisy, the test may have to be conducted separately from other people. Also, if a Brailler is used, the person taking the test should read back the test, letter by letter, to the VEs. The VE team should keep the Braille sheet and transcribed copy after the exam.



Simon Rosconi, K6DSN, and Melvin Kahn, AB6BY, practicing CW.

Recite the letters or words to a someone who will write them down. An examinee could also recite the letters or words into a tape recorder.

Hearing

Hearing impairment is not an automatic exemption from the code requirement. There are many ways to accommodate people who are hearing impaired.

For people who have hearing losses in the normal code frequencies (usually around 750 Hz) the VE's can order tapes from their VEC with the frequency shifted to the examinee's most sensitive frequencies. Computerized code teaching and testing programs can also adjust the frequencies. Generally if a person can understand speech they will be able to copy code somewhere in the audio frequency range.

VE's may increase the volume to a level that is perceptible to the person.

The navies of the world have long used flashing lights to communicate ship-to-ship during periods of radio silence. There are devices that will flash a light using the audio from any standard audio code tape or even off of a radio's audio output.

Many computer code programs will also will flash the screen in addition to producing the sound. This method seems to have an upper limit of 10 to 12 WPM in most cases.

The sense of touch can also be used whether it's using a vibrating "tactile pad," or having the examiner tap the code on the back of your hand.

Writing or literacy

VE's can easily compensate for most of these disabilities: Pause the test between words, or even between letters, to allow the person time to write; type; recite; or use a word or speech board.

Verbal

Verbal difficulties are not a problem unless the person has another disability that prevents him/her from writing.

Use a sign interpreter if the person can sign. The interpreter can type, write or recite the copy as appropriate.

Considerations

Don't show up the day of the exam and demand accommodation.

Call ahead and let the VE know what kind of accommodations you may need and find out when they will be able to meet your needs.

Be prompt, the VE team can adjust the testing schedule at the beginning of a test session much easier than they can in the middle or at the end. Expecting an accommodated exam ten minutes before the end of the scheduled session is unreasonable.

If you cannot make a prearranged accommodated test session call as soon as possible.

Remember that accommodated exams usually take extra time and effort to set up. Show your appreciation to the VE team.

Don't be offended if the examiners process the people who can take standard tests first. After all, which makes more sense, making one person wait for 15 minutes or 20 people wait for 15 minutes.

Don't insist that the VE team do anything they feel is improper. They may lose their licenses and be fined if they do something wrong.

Remember that the VE's are volunteers. They are testing people on their own time and, in many cases, the testing fees don't cover their out of pocket expenses.

For the VE team

Don't make a special production of the accommodated test, just run it as a slight alteration of the normal procedures.

Unless the person claims hearing as a disability, assume their hearing is normal.

If you question the validity of a Doctor's Statement follow your VEC's procedures.

Contact us if we can help with unusual circumstances, or if you have worked out a good solution on your own.

Be respectful of people's needs, but also be realistic. Avoid characterizing people who request accommodative procedures or exemptions as "lazy" persons who just don't want to learn code; the fact is that there are many people who have disabilities that make code virtually impossible to learn and use. On the other hand, do not be gulled into giving the examination away to people who simply have not tried to learn the code!

We hope these guidelines are useful. For more information on Amateur Radio for persons with disabilities contact us at: Courage HANDI-HAM System, 3915 Golden Valley Road, Golden Valley, MN 55422; Tel.: 612/520-0511; E-mail: handiham@mtn.org; Web: www.mtn.org/handiham.

The Youth Forum

Brian Mileshosky, N5ZGT
1021 Dakota S.E., Albuquerque, NM 87108
E-mail: n5zgt@swcp.com
http://www.swcp.com/~n5zgt

1998 Newsline Young Ham of the Year: Richard Paczkowski, Jr., KF4BIA

A 16-year-old Amateur Radio operator from Florida has "had a true 'baptism of fire' on the air," says Amateur Radio *Newsline*. And they are right! Richard Paczkowski, Jr., KF4BIA, has been named the 1998 *Newsline* Young Ham of the Year, which is jointly sponsored by Amateur Radio *Newsline*, Yaesu USA Corporation and *CQ* magazine.

Richard, who has been involved in Amateur Radio for four years, holds a Technician license and has spent that time offering service to benefit his community and Amateur Radio. As you may recall, Florida was in bad shape due to all of the wildfires throughout the state.

According to *Newsline*, Richard became a key person in coordinating Amateur Radio emergency communications when the fires in his area became more and more intense. At a time when more Hams were needed for communication support, the area's Amateur Radio Emergency Coordinator had been called out of town on personal business. Richard was there to coordinate communications and assist the Red Cross as the Volusia County ARES Assistant Emergency Coordinator, even when his own home was in danger.

In addition to his generous involvement with ARES, Richard is a member of SKYWARN, the Daytona Beach Amateur Radio Association and the Coronado Wireless Association. He is definitely a valuable person to the Amateur Radio community, as well as the Florida community! Richard was presented his 1998 *Newsline* Young Ham of the Year Award on 15 August at the annual Huntsville Hamfest banquet in Huntsville, Alabama. The ceremony was co-hosted by Bill Pasternak, WA6ITF, of *Newsline* and the Young Ham Of The Year Award Committee Chairman Larry Zettwoch, KR4IF. I had a part in the ceremony, and it definitely was an honor to meet him!

Richard received an all-expense-paid trip to the 1998 Huntsville Hamfest (courtesy of Yaesu USA), as well as a gift of Yaesu Amateur Radio equipment. *Newsline* presented him with a beatiful commemorative plaque, which Dave Bell, W6AQ, donated. He has also been awarded an all-expense-paid week to Spacecamp in Huntsville. Richard, showing even more generosity, has donated this Spacecamp experience to the Make-A-Wish Foundation so that a terminally ill child will be able to attend a week long session filled with fun activities, learning all about the various space programs, simulators, SCUBA diving, and teamwork!

The *Newsline* Young Ham of the Year award is presented annually to one Amateur Radio operator in the U.S., who is 18 years of age or younger, for his or her dedication to making Amateur Radio a better hobby, as well as his or her local, state and national community! Nominations will be accepted for the 1999 Young Ham of the Year sometime in early 1999!

Past recipients of the Young Ham award include Shawn Alan Wakefield, WK5P, of Bartlesville, Oklahoma (1986); David Rosenman, KA9PMK, of Muncie, Indiana (1987); Jonathan Binstock, NK3D, of Potomac, Maryland (1988); Erin McGinnis, KAØWTE, of Topeka, Kansas (1989); Mary Alestra, KB2IGG, of Staten Island, New York (1990); Richard S. "Sammy" Garrett, AAØCR, of St. Louis, Missouri (1991); Angela (Angie) Fischer, KBØHXY, also of St. Louis, Missouri (1992); Kevin Boudreaux, N5XMH, of New Orleans, Louisiana (1993); Allison Daneen Zettwoch, KD4CKP, of Louisville, Kentucky (1994); Adam Weyhaupt, N9MEZ, of Alton, Illinois (1995); Toby Metz, KB7UIM, of Boise, Idaho (1996) and Brian Mileshosky, N5ZGT, of Albuquerque, New Mexico (1997).

Congratulations Richard! Keep up the great work!

Jamboree On The Air '98

Are you involved in Boy Scouts, Cub Scouts, Girl Scouts or Exploring, either as an adult or as a youth? Then I'm sure you've heard of Jamborees, Camporees and the like, where many Scouts have a chance to meet each other and experienc different activities. These event might be costly, and, for example, a a Boy Scout National Jamboree, you might meet many of the 30,00(people attending. But what if I told you that you will soon have a chance to meet more than 400,000 Scouts and Scouters without leaving the comfort of your shack? It's true! And the opportunity takes place this month!

I would like to encourage and invite you to participate in Jamboree On The Air (JOTA), which is held annually to give Scouts and any other interested person a chance to experience Amateur Radio firsthand! Please note that this event is not just for Scouts. Anybody may participate whether they are part of the Scouting movement or not. JOTA is held the third weekend of every October starting Saturday at 0001 hours local time to Sunday, 2359 hours local time, though you may operate anytime before or after this event. Keep in mind, this is not a contest. The calling frequencies for this event are:

Band	Voice	CW
80M	3.740/3.940 MHz	3.590 MHz
40M	7.090/7.290-Region 2	7.030 MHz
20M	14.290 MHz	14.070 MHz
17M	18.140 MHz	18.080 MHz
15M	21.360 MHz	21.140 MHz
12M	24.960 MHz	24.910 MHz
10M	28.990 MHz	28.190 MHz
		(Novice: 28.350 MHz)

Please keep in mind that these frequencies are to be used only to initiate a contact, by calling "CQ

JOTA." Once you have contacted a station, please be courteous and move to another frequency for the QSO so other stations can then use the calling frequency.

Again, I encourage every Ham who is reading this column to participate in this annual event, not only because it is fun-filled, but also because it is the perfect opportunity to introduce our awesome hobby to many people, especially the youth. Imagine the impact you would have on them when they experience actually talking to other young people in far away places!

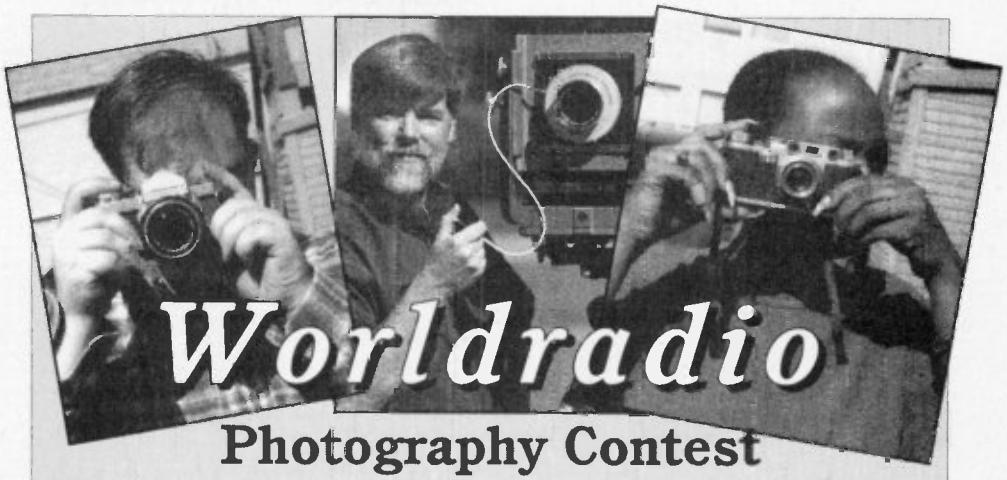
What does it take for you to get involved? Easy! Volunteer some of your time. Contact a local Amateur Radio club and ask if they would help. Then decide on a place where everybody can get on the air for the event. This can be either at somebody's house or at a club station. Have plenty of Amateur Radio literature on hand for those interested in the hobby, and be ready to answer questions, too!

If you will be using this event as a chance to interest others, you need to be ready to make it sound very appealing, as if you were trying to sell a product! You may request a JOTA information packet and other Amateur Radio literature and brochures from the Educational Activities Department at ARRL Headquarters by calling 860/594-0301. If you can get on the Internet, head over to the ARRL web page at www.arrl.org, or send me an email with your questions. My email address is at the top of this column.

Enjoy the event! Please send pictures and reports to me and I will be more than happy to feature as many as possible, depending on how much space I have in my next column! Please mail them to me via the address at the top of this column as soon as possible! Pictures are especially encouraged, too!

Well, it looks like I will not be resigning my position as the ***Worldradio*** Youth Forum column right away after all! As of the deadline for this particular column, nobody has stepped forward to take over the Youth Forum, so I have decided to continue writing rather than letting it possibly die altogether. So, as always, please send me your comments and suggestions, as well as any topics you would like to see me write about!

73, Brian N5ZGT



Photography Contest

You've seen the photographs appearing in ***Worldradio*** and other Amateur Radio magazines. How many times have you said to yourself, "Self, I have better photographs than that!" Well, now is your chance to showcase your talents to the world.

We are looking for your excellent photographs. We will pick 6 winners, and those photographs will be featured on the cover of ***Worldradio***, starting with the January 1999 issue. As with any contest, there are some rules to follow.

Rules:

1. The contest is open to any ***Worldradio*** subscriber or reader.
2. Each photograph submitted must have an Amateur Radio theme. (Your tower falling over, the sunset as seen through your massive DX antenna complex, your station setup, the shack burning down due to the fire started by your soldering iron, etc.)
3. Anyone appearing in the photograph must be identified by first and last name, and call sign (if applicable).
4. Photographs submitted must be original, previously unpublished (other than your local club newsletter) in a print media.
5. Photographs must be sent by mail only (Sorry, no electronic submissions).
6. Multiple entries are encouraged.
7. If possible, original negatives or slides are preferred (they are much easier to work with) however, we can use prints. Prints must have a glossy finish (Matte finish doesn't scan very well).
8. If you want your prints/negatives/slides returned to you, you must enclose a self-addressed, stamped envelope with your entry.
9. The deadline for submissions is 16 November 1998.

Prizes:

Each winning entry that is selected as a cover photograph will be awarded a 3-year subscription to ***Worldradio***. In the event that the winning entry is submitted by a Lifetime subscriber, the Lifetime subscriber will be awarded his/her choice of ***Worldradio*** merchandise (books, hats, coffee mugs, etc) up to $45.00 value.

Send your entry to: Worldradio Photo Contest, 2120 28th Street, Sacramento, CA 95818

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

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). 2/99

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

CALIFORNIA

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

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 Restaurant in Richmond, CA. Info: Ed Caine, KA6OFR, (707) 996-0962. 1/99

Downey Amateur Radio Club Inc., W6TOI. Meets 1st Thurs./monthly, 7:30 p.m., So. Middle 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. 11/98

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

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

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. (510) 846-6513. 1/99

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 Bldg., 27 Shell Rd., Mill Valley. 9/99

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

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 8 p.m., Our Savior's Lutheran Church, 1035 Carol 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, (530) 273-2008. donandlinda@telis.org 8/99

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

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

Poinsettia ARC. Meets 1st Thurs./monthly, 7:30 p.m., First Christian Church, Telegraph Road. & Teloma Drive, Ventura, CA. For info: George Myers, KA6WZR, (805) 644-1131. 4/99

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 call: (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. 2/99

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

Santa Clara County Amateur Radio Assoc., (SCCARA) W6UW & W6UU. P.O. Box 6, San Jose, CA 95103-0006. (408) 249-6909. Meets 2nd Mon./monthly, 7:30 p.m., 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

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

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

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

Southern California Six Meter Club. P.O. Box 10441, Fullerton, CA 92635. USB Net Tue., 8:00p.m., 50.150. FM Rpt. Net Thurs., 7:30 p.m., 52.86/52.36 tx. FM Smplx, call freq. 50.300. Net Sun., 10 a.m. 50.40. 4/99

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. 1/99

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

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

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

This month ... Mount Diablo Amateur Radio Club, from Pleasant Hill, CA, has won an MFJ Antenna Analyzer to share with its members. The club's name was selected at random from our "Visit Your Local Radio Club" listing.

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(-). 2/99

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

Westside Amateur Radio Club. P.O. Box 11092, Marina del Rey, CA 90295. Meets 4th Tues./monthly, 7:30 p.m., West Dist. Red Cross Bldg., 11355 Ohio Ave., W. Los Angeles, CA (VA Cntr. grounds). Net every Tues., 8 p.m. 146.67(-) except mtg. night. Website: http://www.qsl.net/warc Voice mail: (310) 917-1100. 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. 10/98

Yuba-Sutter Amateur Radio Club, (YSARC). P.O. Box 1169, Yuba City, CA 95992. Meets 2nd Wed./monthly, 7 p.m., The Mall at Yuba City, 1215 Colusa Ave., Yuba City. 2/99

COLORADO

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

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, www.thisistrue.com/ barc.html, or e-mail: BARC@pobox.com 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. 11/98

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 2/99

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. 10/98

Indian River ARC, Inc., (IRARC). P.O. Box 579, Cocoa, FL 32926-0579. Meets 1st Thurs./monthly, 7:30 p.m., Community Church of the Nazarene, 400 Crockett Blvd., Merritt Island, FL. 3/99

Port St. Lucie ARA. Meets 1st Fri./monthly, 7:30 p.m., St. Andrews Church, Prima Vista Blvd., Port St. Lucie, FL. Contact: Roy Cox, KT4PA, (561) 340-4319. Call in 146.955(-). 11.98

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

GEORGIA

Dalton Amateur Radio Club, Inc., (DARC). P.O. Box 143, Dalton, GA 30722-0143. Meets 4th Mon./monthly, 7:30 p.m., Magistrate Court Bldg., corner of Waugh St. & Thornton Ave., Dalton, GA. Info: Harold Jones, N4OTC, 706/673-2291. 4/99

Gwinnett Amateur Radio Society, (GARS). P.O. Box 88, Lilburn, GA 30048. Meets 3rd Thurs./monthly, 7:30 p.m., Gwinnett Central Baptist Church on Gwinnett Dr., Lawrenceville, GA. 147.075+ PL 82.5. Contact: Mike Swiderski, K4HBI, (770) 449-0369. 8/99

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 Elem. Sch., 615 Auwaiolimu, Honolulu. Nets: nightly 7:30 p.m., 146.88 & 146.80. Rptrs: 146.76(-), 146.80(-), 146.88,146.98(-), 146.94(-). Info: (808) 833-6944, WH6CZB. 11/98

Koolau Amateur Radio Club, (KARC). 45-145 Mikihilina St., Kaneohe, HI 96744. Meets 2nd Sat./monthly, 9:30 a.m., Hoomaluhia Pk., Kaneohe, HI. 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., Holy Trinity Church, SE corner of Cass & Richmond, 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, 8 p.m., Crestwood Civ. Ctr., 139th & Kostner, Crestwood, IL. Nets: Sun. (local) 0100 UTC, 28.410 MHz; Mon. 9 p.m. 146.43 S., Packet Mailbox 145.65 MHz. Info: (312) 974-3291. 1/99

Peoria Area Amateur Radio Club, (PAARC). P.O. Box 3508, Peoria, IL 61612-3508. Meets 2nd Fri./monthly, Red Cross Chapter House, 311 W. John Gwynn Jr. Ave., Peoria, IL. Voice mail: (309) 692-3378. Rptrs: 147.075(+) & 146.85(-). 6/99

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

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

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

LOUISIANA

Baton Rouge ARC. Meets last Tue./monthly, 7 p.m., Catholic HS cafeteria, 855 Hearthstone Dr., Baton Rouge, LA. Club rptr. 146.79(-). Info: Russ Allor, N5ADF, (504) 927-6290. E-mail: W5GIX@aol.com 10/98

MAINE

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

MASSACHUSETTS

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

MICHIGAN

Adrian Amateur Radio Club, W8TQE. Box 26, Adrian, MI 49221. Meets 1st Fri./monthly, 7:30 p.m., Civil Air Patrol Bldg., Lenawee Co. Airport, Cadmus Rd., Adrian. ARES net Sun., 9 p.m. 145.37(-). Info: Mark Hinkleman, NU8Z, (517) 423-5906. 4/99

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

MINNESOTA

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

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

MISSISSIPPI

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

NEVADA

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

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

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

NEW HAMPSHIRE

Great Bay Radio Association, W1FZ. P.O. Box 911, Dover, NH 03820. (603) 749-2970/ 332-9107. Meets 2nd Mon./monthly, 7 p.m., Rochester Community Ctr. Talk-in: 147.57. 1/99

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

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

South Jersey Radio Assoc., (SJRA), K2AA. Meets Jan.-Oct., 4th Wed./monthly, 7:30 p.m. (Nov.-Dec. 3rd Wed), Bloomfield Fire Hall in Pennsauken, NJ. Talk-in: 145.29(-) rptr. 8/99

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 Company, 499 Zimmerman St., No. Tonawanda, NY. Talk-in: 146.955(-) rptr. W2PVL. 11/98

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

Hall of Science Amateur Radio Club. P.O. Box 150131, Kew Gardens, NY 11415. Meets 2nd Tue./monthly, Hall of Science Bldg., 47-01 111 St., Flushing Meadow Park, 7:30 p.m. Info: Voice mail (718) 760-2022. 2/99

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

The Radio Club of J.H.S. 22, N.Y.C., Inc. WB2JKJ. P.O. Box 1052, New York, NY 10002. 24-hr. hotline: (515) 674-4072. Fax: (516) 674-9600. Non-profit org. using Ham Radio to enhance the education of youngsters, nationwide. Join us — "Class-room Net," 7.238 MHz, 7 a.m. E.S.T. PSE QSL! 10/98

Suffolk County Radio Club, (SCRC). Meets 3rd Tues./monthly, 8 p.m., Bohemia Rec. Ctr., Ruzicka Way, Bohemia, NY. Talk-in: 145.21(-) rpt. Info: W.S. Black, KB2YAP, (516) 289-5587. 4/99

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

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

NORTH CAROLINA

Cape Fear Amateur Radio Society. Meets 3rd Mon./monthly, 7:30 p.m., Methodist College, Fayetteville, NC. Talk-in 146.91/31. Info: Kelly Kanode, N4EWG, (910) 867-4300. 4/99

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(+). Phone: (704) 888-4815. 5/99

OHIO

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

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

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

Lake Erie Amateur Radio Assoc., (LEARA). Meets at Dimitri's Rest., (Mid-Town Shopping Ctr.), Snow & Broadview Rd., Solon, OH, last Tues./monthly. Dinner at 6:30, mtg. at 7:30 p.m. (R.S.V.P. to Marv Grossman 440/349-8398 for dinner by 11 a.m. day of mtg.) 4/99

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. 2/99

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

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

OREGON

Central Oregon Coast ARC. P.O. Box 254, Florence, OR 97439. Meets 2nd Sat./monthly, & every Wed./weekly, 9 a.m. for breakfast at Lovejoy's/Pier Point Inn. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 1/99

Central Oregon Radio Amateurs, (CORA). P.O. Box 723, Bend, OR 97709. Meets last Thurs./monthly, 7 p.m., Bend Sr. Ctr., 1036 NE 5th, Bend, OR. 147.06(+) MHz. Info: (541) 389-7194. 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. For info: Tom Hamilton, WD6EAW, Telephone/FAX: (541) 883-2736. wd6eaw@cdsnet.net 11/98

Umpqua Valley Amateur Radio Club, Inc. P.O. Box 925, Roseburg, OR 97470. Meets 3rd Thurs./monthly, 7:30 p.m., Douglas County 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. 11/98

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

TEXAS

Brownsville ARC (CHARRO). Meets 2nd Tue./monthly, 7:00 p.m., Confederate Air Force Hangar, Brownsville Airport in TX. Coffee mtg. Sat./weekly, 10 a.m., Days Inn, Hwy 83 & Price Rd. Talk-in on 147.040(+). 4/99

VIRGINIA

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

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

WASHINGTON

The Mike & Key Amateur Radio Club. Meets 3rd Sat./monthly, 10 a.m., Salvation Army Renton HQ., 720 Tobin St., Renton, WA. Talk-in on 146.82(-) (103.5 CTCSS) rptr. Doors open at 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. For 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. 5/99

WISCONSIN

Central 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

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

Positively CW

Nancy Kott, WZ8C

P.O. Box 47, Hadley, MI 48440-0047
e-mail: nancy@tir.com

The printing "rotation" of Positively CW is now October, December, February, etc. I didn't have a column in September as there normally would have been. If you search your memory banks, you may remember that in the July issue we were discussing the Theory of Overlearning and how it applies to learning Morse code.

You are not alone in your desire to improve your Morse skills. Here are a couple of the comments I received.

Larry Moore, W7NJU, wrote and told me he's 79 years old and got his first ticket in 1949. He worked CW for about six months, then heard about microphones. There went his CW skills! He'd like to be a decent CW man but he's not getting back into the swing of things and needs help with the code.

Lynn Laseman, AA9NA, says, "Your article really hit home with me because although I've passed my 20 wpm, I still don't really know CW! For all my several years of CW work all I've really learned to do is mentally decode dots and dashes. At least I know the problem and now I'm working to learn CW for the last time, I hope. I have observed that during those rare moments my mind slips out of decoding mode and I bypass thought and just hear a sound and write a letter, 20 wpm is no big deal at all. My goal is to get to the point that this rare insightful treat becomes the norm."

This column generated more response than any I have written so far! It really struck a chord with many ***Worldradio*** readers. It wasn't surprising since most people have tried learning Morse code using the conventional methods — buying expensive tapes, trying gimmicks, and relying on 'cheat sheets.' It's ironic that the most researched and best proven way to learn the code and get your speed up is free and couldn't be easier. The only drawback is, it's b-o-r-i-n-g! Very boring, in fact. But that is the whole idea behind it: Repetition to the point of instant recognition. Overlearn it so it becomes second nature. It needs to be an automatic response like comprehending words while reading a book or adding 2 plus 2 in your head.

As I said in my July Positively CW column, if it takes you more than a second to recognize a Morse character after you hear it, you do not have instant recognition. Not having instant recognition will hold you back more than you realize. I know it might be hard to believe, but that second you lose while you think "ummm...didah...wait, I know that one...oh yeah...A" will prohibit you from increasing your speed. You will not be comfortable at higher speeds because you're struggling. When you observe a CW operator who does have instant recognition, you will notice that it is effortless for him. The faster operators have instant recognition on common words, and you can too. All it takes is practice! If you follow the steps I'll outline here, I guarantee you'll have instant recognition and your CW operating will become a joy rather than a nerve wracking experience.

First, let me give you a little background on instant recognition and the Theory of Overlearning.

Aristotle lived in Greece from 384-322 BC and is sometimes called the "father of modern science." He wrote works on esthetics, metaphysics, logic, and psychology among other things. His Law of Contiguity is considered to be a necessary condition of learning by modern psychiatrists. The Law of Contiguity tells us when two events occur within 1/2 second of each other, the brain will associate the two events; and, if the first event occurs again, the brain will also automatically recall the second event.

What all this means regarding the code is if you whistle a Morse code character or hear it from a tape, this is a first event. If you speak, within 1/2 second, the letter this character represents is the second event. Then, when you hear that Morse code character again, the letter it represents will automatically come to mind.

Unfortunately such associations are quickly forgotten if you do not reinforce them. Your objective is to make this association a part of your permanent memory. You can make the code a part of your permanent memory by OVERLEARNING. Extensive research has been done on the subject of overlearning. It has always been found to be the best method of achieving permanent memory traces. Overlearning occurs when we continue to practice something we feel we have already learned. In other words, we must use the Law of Contiguity over and over and over, dozens of times for each character we wish to learn, and you must speak the letter as quickly as possible after the Morse character ends.

When you practice material you feel you already have mastered, boredom soon may arrive. For this reason, practice sessions should be very short: a minute at a time with 40 to 50 repetitions. You must keep your mind focused during that

minute, really hearing the Morse character and the spoken letter. Doing the practice in a singsong fashion without concentration is a worthless waste of time.

You don't even need any equipment to use this Overlearning method. Try this: Put your tongue near the back of your teeth and make a hissing sound by blowing pulses of air between your teeth and tongue. Whatever sound this makes can be used to make Morse characters at low volume (or whistle it loudly if you're so inspired!). If you make a character with this hissing sound and quickly whisper the required letter, you have met the requirements of the Law of Contiguity. You will find many occasions during the day when you can accomplish a minute of practice: while walking, driving a car, on a coffee break, or while doing many routine tasks. Psychologists have proven that short, frequent practice sessions produce more results than fewer, longer sessions.

Give this method a try. Select a Morse character you are unsure of, and give it five or six one-minute practice sessions a day for two days. IMPORTANT: Space the practice "minutes" by at least 20 minutes apart. Later, you'll find that when you hear the character on the air, or from a tape, you will have instant recognition. If you don't have it, continue the practice until you do. Review the letter occasionally for a month to make sure you've overlearned it and then it's in your brain for keeps!

On another topic, does anyone know where to find a code practice program for use on a Macintosh operating with OS7? Chuck Collins, NL7ML, and his wife are looking for one. What do you think of computer code programs? Have you had success with them? Let me know what you think and I'll share your thoughts in a future column.

Please let me know if you try the Overlearning Method. Did you find a lot of letters with which you didn't have instant recognition? How often did you practice? What problems did you encounter? Your feedback is important to me and will help others who are also learning the code. Most important of all — don't give up! It IS worth it! My email address is nancy@tir.com and snailmail is Nancy Kott, P.O. Box 47, Hadley MI 48440.

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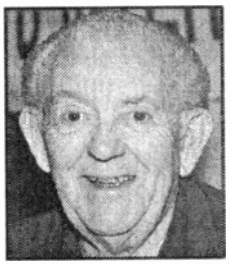
-10-10- INTERNATIONAL News



Chuck Imsande, W6YLJ • 10-10 19636

10-10 QSO Parties

There are two 10-10 QSO Parties coming up in the near future. The first is the one-day "10-10 Day Sprint" (10-10 Day Sprint for October 10th.) This one-day "sprint" begins at 0000Z on 10 October and ends at 2400 on the same day. Make as many contacts as possible in this short 24 hour QSO Party as possible. You do not have to be a 10-10 member to participate in this fun program. Non 10-10 members can use contacts for qualification for 10-10 membership (10 contacts with another 10-10 member required). Full members may send their log to the Gateway Chapter c/o Don Ward, WØRTV, 4514 Ferrer Drive, St. Louis, MO 63129, for scoring. Log postmark date for your score to count is 26 October 1998. Please remember that 10-10 promotes and recommends that a "quiet zone" be observed between the frequencies of 28.490 and 28.510 for those who do not participate in this 10-10 acitivity. Please leave the above frequencies open for non 10-10 members to use.

The Fall 10-10 CW Party is scheduled to begin at 0000Z on 31 October and end at 2400Z on 01 November. Full 10-10 members may send their logs to the Steel City Chapter c/o John Porzelt, N9UKZ, 1409 N. Paulina, Chicago, IL 60622. Log postmark date is 16 November 1998 to qualify for your score to be counted.

Please remember that all log submittals require a 10-10 QSO Party cover sheet, and dupe sheet, The Cover Sheet can be found on page 32 of each copy of the 10-10 International News, in the 10-10 QSO Party Brochure or is available for download from the 10-10 Web Site. A photo copy of your current dues card or a photo copy of page 32 of a recent issue of the 10-10 News showing your membership expiration date is also required with your log submittal.

Complete rules and scoring information can be obtained from the 10-10 Information Manager. Please send a #10 (business size) SASE with one unit of first class postage to the Information Manager listed at the end of the article. Request the 10-10 QSO Party Information Brochure. This is a valuable document for members and non-members alike and has been recently updated to include all of the latest information regarding 10-10 QSO Parties.

New members

10-10 continues to grow as we approach the issue of number 70000! The latest number issued as of 30 June 1998 was 69667 to Paul Smith, KF4ONH, of Gainsville, FL. We want to welcome all of our new 10-10 members. At the rate new members are coming into 10-10, passing the 70000 number should be very soon.

The President's Award

Each year the 10-10 President has the authority to make this special award to one, or more, 10-10 members. This year, President Tom Henderson, K4CIH #33233, presented his 1998 Presidents Award to Jack Moore, K5CC #50708, of Bulverde, TX. Jack is the host of the 10-10 Hill Country Picnic, which has been held for the past 10 years at his 22 acre spread in the Hill Country just outside of San Antonio, TX. Jack's picnic has grown from a small group in the beginning to about 70 in attendance at this year's affair in late May. In presenting Jack his award, the President stated that Jack was deserving of this award due to his long time support of 10-10, hosting the Hill Country Picnic for the past 10 years, and being a nucleus for holding the San Antonio area 10-10'ers together as a group. He has always been available to help when called upon. The president stated that Jack is the kind of 10-10 member that makes 10-10 the kind of organization that it is.

Jack has announced the date for the 1999 Hill Country Picnic as 06 June 1999. This is one week prior to the 10-10 Convention to be held in Oak Ridge, TN. Jack stated he hopes that those on the way to the 10-10 convention will plan time to stop by and enjoy the Hill County Picnic. Take it from one that has attended the 1998 picnic, this is one 10-10 affair that you should plan to attend.

TOP TEN Honor Roll

In each issue of the 10-10 International News there is a list of the TOP TEN on the Honor Roll. This lists the number of 10-10 contacts made with different 10-10 members. The top name on the Honor Roll list has been the same for many, many years. In fact the top name has been the same as far back as I can remember. That name is Robert Osborn, WA5JDU, 10-10 number 3017. Robert has a total of 23,800 contacts to his credit. This is amazing considering that Robert is blind and maintains all of his records in Braille. He logs his contacts in Braille on file cards, files the cards and keeps his records all without outside help. His mother is at his side to help if necessary. The balance of the TOP TEN are as follows:

CALL	10-10	# CONTACTS
2 WØRWC (SK)	518	19,400
3 WB1DBZ	26001	19,000
4 PJ2WG	27999	17,000
5 W4WKQ	33299	16,700
6 K5MRU	218	16,500
7 WB7NUU	17416	11,900
8 WA9LIC	1599	11,600
9 KØPV	9902	11,500
10 NC7Q	40	11,400

How many more contacts do you

need to displace #10 and get on the TOP TEN Honor Roll? Most of us need a whole bunch!

Information about 10-10? - If you would like information about 10-10, and how you can become a member and receive your very own unique 10-10 number. Send $2.00 and an address label for the return of your information package to: Jeff Ritter, N5VAV #59692, 10-10 Information Manager, 6959 Hovenkamp, Richland Hills, TX 76118. No SASE please as the information package requires a 9 x 12 envelope. You will receive a copy of the 14 page Prospective New Member Brochure which contains everything you want to know about the 10-10 organization, a listing of all 10-10 Chapters, their day, time, and frequency of net operation and an application form. Also enclosed will be a copy of the 8 page QSO Party Information Brochure and a copy of the latest issue of the *10-10 International News*, the 32 page 10-10 quarterly magazine.

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

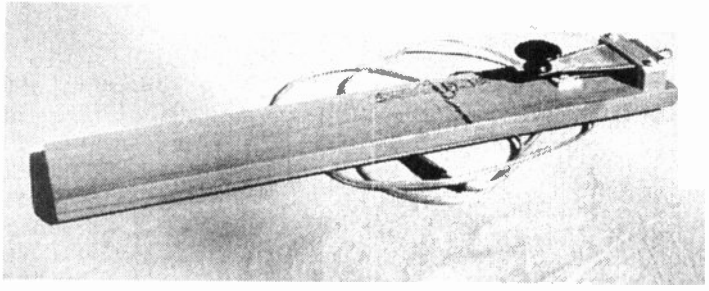
If your membership in 10-10 has expired and you would like to renew your dues, send your dues ($10.00/year or $25.00 for 3-years) to: 10-10 International Net, Inc., Attention: Dues Renewal, 643 N. 98th Street #142, Omaha, NE 68114-2332. You will become an "ACTIVE" member again and receive all of the benefits of 10-10 including the quarterly 10-10 International News. Remember 10-10 numbers are issued for life and your originally issued number is always yours.

Wires & Pliers

My favorite key

KENT BAILEY, WA4DQU

As you can see in the photo graph, I have built a very unusual and interesting hand key. It is my favorite key and is made from commonly available materials, and should cost less than $10.00 to build.



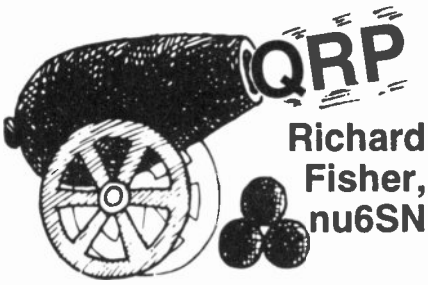
The base is cedar and is 5/8 of an inch thick, 3 and 1/2 inches wide and the length can be adjusted to whatever feels good for the operator. The metal hold down is 3/4 of an inch thick, 3 and 1/4 inches wide, 3 and 1/4 inches long and 1/8 of an inch thick.

The block and metal hold down plus one wire are held to the base with two 6/32 of an inch screws with counter-sunk heads and nuts.

The actual paddle is an "Ekco" two inch putty knife found at a supermarket. The knob is birch, and is 1 and 1/2 inches in diameter. It was purchased at my local "Ace Hardware" store and they come packaged two per bag.

The striker plate is 1-inch square and 1/8 of an inch thick with small holes in each corner for nails. I used brass linoleum nails to fasten to the board. I drilled a hole through the center of the striker plate for a 6/32 inch screw with nuts on both sides of the plate. The nuts lock the striker screw at the proper height and lock the other wire to the striker. The wood is waxed with several coats applied.

This is the best home-made straight key I have ever used riding, walking, standing, sitting or floating.



Richard Fisher, nu6SN

1940 Wetherly Way, Riverside, CA 92506
e-mail: nu6SN@aol.com

Much ado about PACIFICON

Featuring a speakers program with some of the best known names in QRP today, the West Coast QRP Symposium is primed and ready to roll on 17 October at the Sheraton Hotel in Concord, CA. If you've never had a chance to attend, it's a QRP weekend not to be missed.

Sponsored by the NorCal QRP Club, and organized by Doug Hendricks, KI6DS, the QRP symposium, in conjunction with the 1998 Pacificon convention, has quickly become one of the premiere QRP events in the country. Its daylong series of seminars has traditionally drawn overflow crowds, and it's all free with the price of Pacificon admission.

Saturday's series of seminars include:

"How to Build Cheap and Easy Cases for Your QRP Equipment," with Bill Jones, KD7S, of Sanger, CA.

"Operating QRP Contests from the Field and Maximizing Fun," Joe Gervais, AB7TT, of Goodyear, AZ.

"Solar Phoenomena and How to Interpret Solar Reports," Paul Harden, NA5N, of Socorro, NM.

"The NorCal 20, How It Was Designed and Why," David Fifield, AD6AY, of San Jose, CA.

"Propagation Predictions, and How to Interpret Them," Adrian Weiss, WØRSP, of Vermillion, SD.

"The G3RJV Sixpack," six easy projects in a single kit for the QRPer, by the Rev. George Dobbs, G3RJV, of Lancashire, England.

"Field Day Operating" and "Antennas for Field Day," Roy Lewallen, W7EL, of Beaverton, OR.

There will be a QRP Hospitality Open House Saturday night that will feature the Unlimited Building Contest, 2N2222 Building Contest, and the NorCal K8FF Paddle Building Contest.

In addition, Chuck Adams, K5FO, of Dallas, TX will conduct a CW copying contest that will start at 20 wpm and increase in speed until there is a winner.

New inductees: QRP Hall of Fame

Four names have been added to the roster of QRP Amateur Radio Club's QRP Hall of Fame.

The 1998 inductees include:

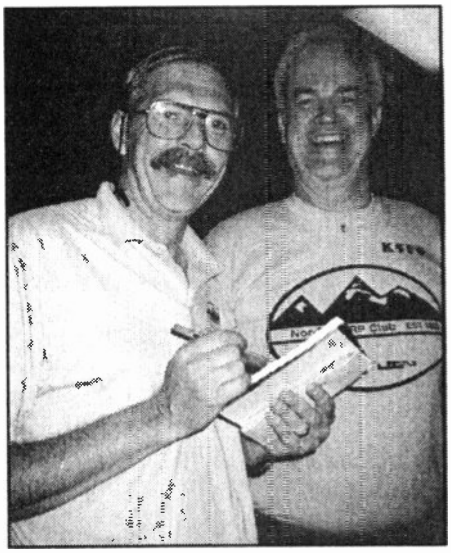
Chuck Adams, K5FO, of Dallas, TX, administrator of the tremendously popular QRP-L Internet Mail Group and QRP ARCI awards manager; Wayne Burdick, N6KR, master designer and builder from Belmont, CA, known worldwide for developing such popular QRP transceivers as the NorCal-40, Sierra, Forty-9er, and the soon-to-be-introduced K2, and many QRP station accessories; Jim Cates, WA6GER, veteran QRPer, writer and cofounder of the NorCal QRP Club living in Sacaramento, CA; and Gus Taylor, G8PG, of Great Britain who for many years has been a prolific writer, experimenter and QRP advocate with articles frequently appearing in G-QRP's quarterly magazine SPRAT.

The quartet joins previous inductees Roy Lewallen, W7EL; the Rev. George Dobbs, G3RJV; Randy Rand, AA2U; Doug Hendricks, KI6DS; Dick Pascoe, GØBPS; Mike Czuhajewski, WA8MCQ; Brice Anderson, W9PNE; George Burt, GM3OXX; Tom Davis, K8IF; Wes Hayward, W7ZOI; Rick Littlefield, K1BQT; C.F. Rockey, W9SCH; Adrian Weiss, WØRSP; and the late Doug DeMaw, W1FB.

It's party time, QRP-style

If you can't make the scene at Pacificon, there's still a lot of QRP fun to be had the weekend of 17-18 October.

For QRP contesting buffs, one of the main events of the "98-99" season is on tap: QRP Amateur Radio Club International's Fall QSO Party.



Veteran QRPers Paul Harden, NA5N, left, and Chuck Adams, K5FO, are part of the program at this monthís West Coast QRP Symposium during Pacificon in Concord, CA.

Behind Field Day, this annual competition is year-in and year-out one of the most popular contests in the low power arena. That hasn't come about by accident.

Hosted by QRP ARCI contest manager Cam Hartford, N6GA, of Claremont, CA, the Fall QSO Party is 36-hours of fun. It's a great way to hone your operating skills, rekindle old friendships and test new gear and antennas.

Lots of activity? You've got to hear it to believe it.

Competitors can operate a maximum of 24-hours during the contest period. It's CW-only and there are multipliers offered for power output levels at 250 milliwatts and below, 1-watt to 250 milliwatts; 5-watts to 1-watt; and 5-watts and above.

QRPers are accustomed to pulling weak signals out of the muck and mire, so you don't need to have top of the line gear or sky wires to participate. Here at nu6SN, 850 milliwatts and a droopy dipole at about 15-feet elevation regularly yields tons of contacts in the Fall Party, resulting in a score that may not be a winner, but respectable nonetheless.

Bonus points are given for contacting members of QRP ARCI — signified by including their membership number in the contest exchange The exchange also includes RST and state/province/country. Participants

who aren't QRP ARCI members send their power output in place of a membership number.

Because of its popularity, simplicity and breadth of operation (160 through 6 Meters) the Fall QSO Party is one of the events I heartily recommend to operators wanting to get their feet wet in QRP contesting.

More on that new call sign

It has been eight months since word appeared in this column that I'd petitioned the FCC for a new callsign and received it. Interestingly, I'm still receiving comment and questions about nu6SN — an indication of just how seriously we radio amateurs take this business of identification.

"You apparently did some research for your item regarding the intermediate "nu" in your March 1998 ***Worldradio*** (QRP) column," writes Charles Baker, W2KTF, from Bellmore, NY. "You might on reflection feel that you may mislead some youngsters when you call the intermediate a prefix.

"You recall that the intermediate was used in this way (using the example of a U.S. station calling a French station): 2AB 2AB 2AB ef nu 1MK 1MK 1MK," Baker correctly points out. "Obviously, the "ef" in the example is not by any stretch a prefix. The problem is that some lad will insist that these letters were used as prefixes. He saw it in print, didn't he?"

Baker has it right on all counts. I did, indeed, do a lot of research on the intermediate callsign system that held forth from January 1927 to October 1928 — a mere 20 months. Technically, given the procedure at the time, these designators appeared both as prefixes and suffixes.

In the case of U.S. radio amateurs, the "n" stood for North America; the "u" for United States. So the station previously signing 6SN was directed by International Amateur Radio Union to use the intermediate "nu." The French station in Baker's example used "ef," where the "e" stood for Europe and the "f" stood for France. In Baker's example, of course, the French station's "ef" intermediate appears as a suffix.

In the literature of the time, these intermediates appeared in lowercase.

Making things even more interesting, and perhaps confusing, in the January 1927 edition of *QST* magazine, the IARU further instructed shipboard stations to "place an "x" before their usual intermediate," adding this example: "Australian 3AA at sea, calling U.S. (station) 1AW, would send "1AW nu xoa 3AA." The reply would be "3AA xoa nu 1AW."

Now, that's a mouthful.

Of course, today on CW we simply use "de" to separate the station being called from the calling station — much simpler, for sure. And while present operating practice won't allow using the "nu" designation in the same manner used in 1927, I'm glad that nu6SN, in its own way, helps preserve some of the rich heritage and history of pioneering QRP operators from years gone by.

Thanks to caring radio amateurs like Charles Baker, W2KTF, the record will be accurate and truly representative of the procedure of that most interesting time.

SAFEX is semi-operational

The SAFEX II 70 cm repeater aboard the Mir space station remains semioperational in both repeater and QSO mode and is reported to be active, although it is not available on every orbit. The repeater uplink is 435.750 MHz FM (with CTCSS tone of 141.3 Hz). The downlink is 437.950 MHz. The SAFEX II 70 cm QSO Mode uplink is 435.725 MHz FM (with CTCSS tone of 151.4 Hz). The downlink is 437.925 MHz FM.

The SAFEX team is interested in hearing from anyone who has recently used the SAFEX repeater. Send reports to Joerg Hahn, DL3LUM, e-mail jh.hahn@gmx.net, or Thomas Kieselbach, DL2MDE, e-mail tom.kieselbach@t-online.de. Mike Sequin, N1JEZ, can provide copies of a how-to-operate article from *The AMSAT Journal*. For an e-mail copy, send a request to N1JEZ at Mike73@aol.com. — *AMSAT News Service, ARRL Letter*

propagation

Carl Luetzelschwab, K9LA
1227 Pion Rd. • Ft. Wayne, IN 46845
e-mail: k9la@gte.net

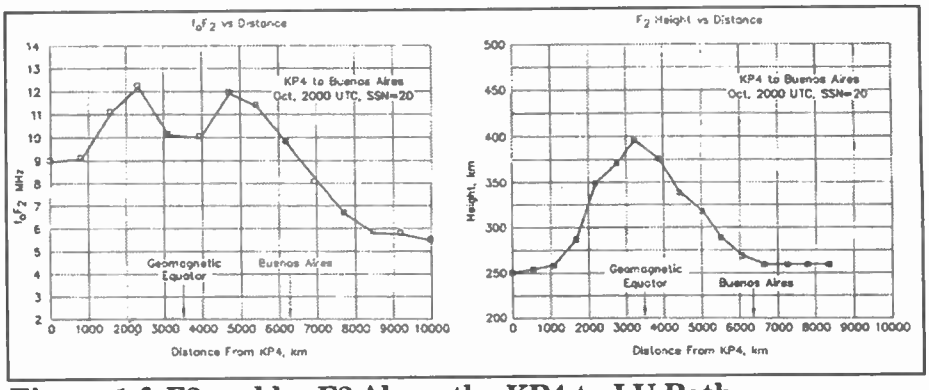


Figure 1 foF2 and hmF2 Along the KP4-to-LU Path

If you've ever worked an LU on 10M in the late afternoon or early evening, chances are good that this was done with the help of transequatorial propagation (commonly abbreviated TE or TEP).

What is transequatorial propagation? What makes it go? And what advantages does it offer? Let's take a look at the ionosphere in the equatorial region, with the goal being to answer the above questions in order to take advantage of this mode more often.

For a path far removed from the equatorial region, the F region critical frequency foF2 and the height of the F region peak ionization hmF2 of most paths can essentially be considered constant or gradually changing. Because of this, Table 1 in the March 1997 column can be used to give a pretty good picture of the MUF and the elevation angle required between two points.

But in the equatorial region, foF2 and hmF2 can vary significantly. As an example, let's take a look at foF2 and its height for a path from KP4 (Puerto Rico) to LU (Argentina) for mid-October at 2000 UTC with a smoothed sunspot number of 20. Figure 1 does this, and it's obvious that both foF2 and hmF2 are doing some pretty interesting things.

The graph of foF2 shows two peaks along the path, and they are centered at about 3,400 kilometers from KP4. The graph of hmF2 increases significantly at this same distance from KP4. This distance, approximately 3,400 km from KP4, is where the KP4-to-LU path crosses the geomagnetic equator. For reference, the geographic equator is approximately 2,000 km from KP4.

Remember that the Earth's magnetic field can be considered to be, to a good approximation, the same as a large bar magnet tilted at an angle to the geographic north-south axis of rotation of the Earth. The tilt is about 11 degrees, and results in a geomagnetic equator that is different than the geographic equator. In the Western hemisphere in the area we are analyzing, the geomagnetic equator is about 12 degrees south of the geographic equator. This 12 degrees of latitude is the 1400 km difference (3,400 km minus 2,000 km) cited in the previous paragraph.

Why do foF2 and hmF2 take on the characteristics shown in Figure 1? The process that results in these characteristics can be likened to that of a fountain. Electrons produced near the geomagnetic equator by the sun's ultraviolet radiation drift upwards under the combined influence of horizontal electric and magnetic fields. As they rise, they encounter the horizontal lines of force of the Earth's magnetic field. They then move down these field lines and reenter the main body of the ionosphere where the field lines cut through the F region, resulting in large clumps of electrons at latitudes 10 to 20 degrees from the geomagnetic equator. These clumps are the foF2 peaks seen in Figure 1.

Using ray tracing techniques, we can visually see the impact that the equatorial ionosphere has on propagation. Figure 2 is the result of a ray trace on the KP4-to-LU path. The MUF for this path, determined by ray tracing, is about 40 MHz. Any frequency much higher than 40.0 MHz penetrates the ionosphere. Note the 7,000 km distance is covered in only 1 very long hop (requiring a 4 degree elevation angle). For those who bother to check it out, 7,000 km from KP4 puts us in the Atlantic Ocean past Buenos Aires, which doesn't do us a lot of good. To get to the major population area of Buenos Aires (6,200 km) with a similar long single hop simply requires a slightly different elevation angle.

From the ray tracing results, the benefits of transequatorial propaga-

tion are three-fold: less ground reflections that introduce loss, less transitions through the absorbing D region down at 50 to 90 km, and propagation of much higher frequencies.

This analysis was done at 2000UTC for the month of October during a period of minimum sunspot activity. Let's take a brief look at how foF2 in the equatorial ionosphere varies throughout the day, in the four different seasons, and at higher levels of sunspot activity (which is the way we're headed - hooray!).

As for diurnal variation, foF2 doesn't exhibit the double-humped characteristic prior to about 1600UTC. From 1600 through 0000

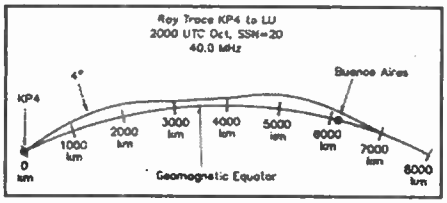


Figure 2 Ray Trace Over the KP4-to-LU Path

UTC, foF2 has taken on this characteristic. By about 0200UTC, the double-humped characteristic has collapsed. What this means is that transequatorial propagation, when translated to local time, is a possibility from mid-afternoon until early evening.

As for seasonal variation, Spring and Fall are the best months because the double-humped characteristic of foF2 is most pronounced. But don't totally rule out the Winter and Summer months — they show a smaller double-humped characteristic, but it's still there. The frequencies propagated may not be as high, but transequatorial propagation should still exist. As for the best month, October appears to win because it has the most pronounced double-hump over the longest time period in the day.

As for solar cycle variation, as the sunspots go up the transequatorial MUF goes up. Doing some simple scaling shows that if the MUF at an SSN of 20 is 40 MHz, then the MUF at the peak of a good sunspot cycle will be well above 6M.

There are limits to transequatorial propagation. First, it is confined to about 3,000 to 4,000 km either side of the geomagnetic equator. This means that those of us in the continental U.S. are too far north to directly take advantage of this propagation mode. We have to rely on an initial hop by some other means (normal F region hop, normal E region hop, sporadic E hop) to get our signals into the equatorial region. Second, a path nearly perpendicular to the geomagnetic equator is required. Regardless of these two limitations, TE can still give us some great openings deep into South America on the higher HF bands.

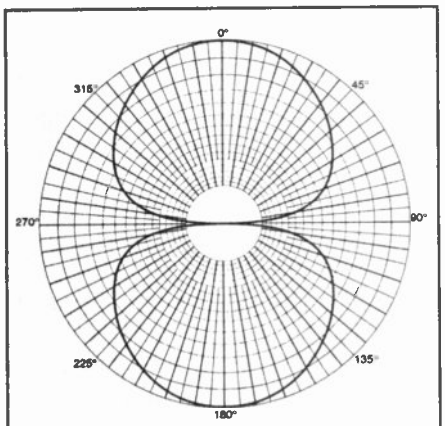
So go have some fun this month on 10M and expect 6M to be a possibility by next Spring and Fall.

No SAREX, but Walter Cronkite is back

While the Space Amateur Radio EXperiment (SAREX) payload won't be aboard the shuttle flight that carries U.S. Senator and astronaut John Glenn into space this fall, renowned former TV newsman Walter Cronkite, KB2GSD, will be back in the anchor chair for the historic flight.

Cronkite, who's 81 and retired from his long-held anchor position at CBS in 1981, will report on Glenn's return to space for CNN. Cronkite, who anchored Glenn's original 1962 space mission, will be joined at the anchor desk for the 29 October launch and 07 November landing by CNN's John Holliman. Cronkite also will contribute to coverage of Glenn's nine-day mission aboard the space shuttle Discovery.

Two hams, U.S. Astronaut Scott Parazynski, KC5RSY, and European Space Agency astronaut Pedro Duque, KC5RGG, of Spain, will be among an international crew aboard STS-95. — *ShopTalk, ARRL Letter*



AERIALS
Lil Paddle

Tut, tut, tut. A rather renowned figure in Amateur Radio, in a rather good book, has some strange and perplexing inconsistencies.

In comparing his antenna with someone else's he says: "I fell short 1.2 dB in gain (that's a lot!)."

Just three pages later, when comparing the gain of two side-by-side delta loops (with tips touching) over one delta loop he says: "The gain is a mere 1.3 dB."

In the very next chapter, while speaking of the gain performance between a Yagi and Quad, (of the same boom length) he says: "....in order of a fraction of a dB to a maximum 1 dB, is more of an academic than of a practical nature."

Well, around one dB difference is either " a lot," "mere," or "academic." Which is it?

Recently, the president of a company in the Amateur Radio antenna business made a statement, in writing, that was just ridiculous. I actually felt sorry for him as he spent many years in the ivy halls of academia studying such matters so he could put three letters after his name. And now he is speaking what I, and many others consider to be twaddle, twaddle, twaddle.

However, he could possibly prove, and his detractors (and there are many after hearing of his statement) could possibly disprove his remarks.

But neither side will enter into a procedure that would guarantee the indisputable truth of one theory or the other. It's easy to do, but nobody in the Ham field wants to do it. I sometimes think that people are afraid of the truth. There is a lot of "pretend" science out there. Some couldn't handle the truth. Finding out they had been wrong all this time would shatter their fragile psyches.

The truth detector costs a mere $200 (and that's not a lot!). One can have all the theories they want. They can have a stack of books (backing up, they think) their opinions. The fingers fly on the keyboards as the arguments rage back and forth.

But there is never the showdown. Possibly one side never suggests it because deep down they fear they could be wrong. Possibly the other side doesn't suggest it either because, possibly possessing more grace, they don't want to send an opponent home in the bathos of disgrace.

I'm speaking of the all-seeing, all-knowing Field-Strength Meter. What it all boils down to is this. After all the knobs are twisted to one's content and the theories are put to test: Is there more, or is there less, signal voltage down range?

There are no ifs, ands, or buts. This is not art, there is no interpretation or critic's differences in aesthetic sensibilities.

The needle (or digital numbers) either went up, went down or stayed in the same place.

Amateurs (and professionals) can foam at the mouth, rant and rave all they wish. But until they "count the raisins in the pudding" it's all a ponderous waste of time and effort.

It's called measurement. Lord Kelvin once said something like "unless you measure, you will stay in the darkness."

In the back of the latest *ARRL Antenna Book* (18th edition) is an advertisement for a Field-Strength Meter by Palomar (P.O. Box 462222, Escondido, CA 92046. Phone 760/747-3343).

Ah, yes, one would think that those seeking the truth about antennas by reading that heavy tome would be reaching out for the very (and only) instrument that depicts the validity of what has been done. No. Through a long and circuitous route we've learned that the sales of this fine, fine instrument have not matched its potential. For what its true value can be, one could almost call it a gift from on high!

Anyone who aspires to be serious about antennas and does not possess a Field-Strength Meter is merely "clowning around." And I don't mean one of those "relative reading" meters. In reality one needs to know the exact number of millivolts now, and the exact number after changes were made, and the specific nature of those changes.

To return to the original situation. It is almost scandalous that educated (on second thought, make that schooled) people can fling statements about and become red in the face while verbally defending their position without meeting on the field of honor with the Field-Strength Meter as the final arbiter.

Small groups, wishing to base their opinions on fact, not fancy, could chip in together and rotate the possession among their circle.

Alas, a second missive with pronouncements by the above-mentioned president of an antenna company has been forwarded to us here at Radio Ranch. This poor chap seems to be determined to destroy the credibility of his product. Sad.

Printouts of the chatter on these computer channels are sent to us. We're on the verge of saying, please stop. It is just too painful. One chap took out, in not pleasant terms, after another and in backing up his opinion vehemently quoted from a particular chart in a specific book. The truly tragic facet of this episode is that he had totally misread the (rather easy-to-understand) chart. No, he didn't misread it slightly; he just missed the entire meaning. And most likely, considering the vehemence of his reply I suspect he boots many other things.

The usually impeccable *QEX* con-

tained a flaw in its July/August issue. On page 51 the diagram shows a dipole for 80, 40 and 20. On 20M there are linear loading stubs. However, in the diagram the wire connecting the top and the bottom of the stubs (on each end of the dipole) is unfortunately missing. As printed the antenna would not function (in the manner intended) on 20M. I know they will issue a correction at the earliest possible issue. The text gives the proper instructions but there are so many who give text a too quick perusal and build from diagrams that we issue this warning.

Many amateurs are quick to say that antenna tuners are lossy. Some even say such twaddle as that the tuner uses up most of the power fed to it. Here is how to test your tuner and also, we hope, send some of the oft-bandied nonsense to its proper resting place.

On the antenna side of your tuner place some resistors (enough in parallel to dissipate safely the low power you will feed to it and some in series to drive the resistance up. Then adjust your tuner to match whatever mess you have out there. Then remove the resistors from the output. Next, with a coax connector connect another tuner's input to the output of the first tuner. At the input of tuner number two connect a wattmeter and a dummy load. Adjust tuner #2 to match the output of tuner #1. Then read the wattmeter. You will then see what level of power exists compared to the input.

Yes, those who are by now screaming, "But that's a pure resistance transformation!" may add a big coil in series with the resistor and then see the very same results.

I was looking at the results of an Antenna Gain Competition which tested antennas for 50 MHz, 144 MHz, 222, 432 and up into the regions where on the other end of the circuit are little green men "Calling Earth." Anyway, there were descriptions of the number of elements of each of the competing antennas and the gain in dBd against reference antennas. Very interesting. But one important factor was missing, and that's a rather important factor: boom length.

I saw a reference to a similar upcoming Antenna Measuring Contest to be held at the 19 September meeting of the Livermore club in California. They will require the entered antennas to operate on 147.470 MHz and match 50 Ohms.

That should be an enjoyable time for all. Allow me to add a note, just for those who may not have a great deal of experience in these matters.

Should someone be using this, or another such event to possibly scale the results up to another band, there are certain cautions that should be observed. The Length-to-Diameter factor of the elements at 144 MHz will be quite different at 14 MHz. The boom diameter will obviously be quite diffferent. And even the feedline plays a part, you are not really going to use a five-inch diameter feedline at 20M. And, should you find some result at 144 MHz with elements going through the boom, when at HF you put the elements on the boom instead, it's a whole new ball game.

For a decade and a half we've pointed out ways to make antennas more DX responsive. Now that the lovely 20M band has come back to life let's examine another factor that may result in more contacts for more deserving DXers.

Listen to what we (you) are saying on the air. "Lots of stations calling you, so I won't hold you." That station in Mali already knows that lots of stations are calling him (even better than you do); he doesn't need you to tell him. You are wasting his time, and yours.

You have just told a station that he is "booming in, thirty over nine;" you then tell him "my name is Joe, Joe, Juliet Oscar Echo. Juliet Oscar Echo. QTH is Denver, Denver, Delta Echo November Victor Echo Romeo. That's Delta Echo November Victor Echo Romeo." You then give him his signal report twice more along with "The band is really in good shape tonight." Which he knows because he has been working North America for the past two hours. Then just to make everyone on the frequency grind their teeth, give his call twice (in long drawn-out phonetics) and your call twice. Then just to waste even more of everyone's time, when you give him his call sign be sure and tell him what city he is in; that will really impress him.

And who first came up with "I'll give you a report on the next over." Gads, give him a report now. By now you can hear what's a nine or twenty over or whatever, it doesn't matter.

Then to waste everyone's time, "I'll send you a card either direct or via the bureau." You have just thrilled him no end to know that another card from W6 is coming his way.

Then the chutzpah award goes to a station in Michigan who told a quite rare station, "I'm OK in the callbook or via the bureau."

Then the everlasting goodbyes. "Thank you for a wonderful QSO. I will look for you again down the log book. If you ever hear me on again please give me a call. May our paths intertwine for eternity."

(Stand by for a startling and important announcement in the next few months.)

Contests

Dave Goodwin
VE2ZP/VE9CB

e-mail: ve2zp@bbs.ve3jf.ampr.org
packet: VE2ZP@VA3TCP.#EON.ON.CAN.NOAM

Working "split"

In the July issue of ***Worldradio***, I suggested that "99% of the time in contests, people work 'transceive'." This month, I will discuss the other 1%.

Working split means transmitting on one frequency and listening on another. There are three bands on which working "split" is quite common practice during a contest: 40m SSB, 80m SSB and 160m. The situations of each are quite different.

Here in the Americas, we are fortunate to have 300kHz of spectrum at 7MHz. Europe, Africa and Asia, however, have only 100kHz of spectrum. In those continents, 7.1 to 7.3MHz is allocated to broadcasting. These broadcasters, running massive amounts of power (from 50kW up to 500kW) and huge high-gain antennas, can completely dominate their section of 40m.

European, African and Asian Amateurs, by informal agreement, use 7.040-7.100MHz for SSB on 40m. To make contacts with stations in the U.S., who can only operate SSB above 7.150MHz, they will transmit below 7.100MHz and listen above 7.150MHz for replies. To do this, you need either a separate transmitter and receiver, a transceiver with an external VFO, a transceiver with two VFOs, or a transceiver with a second, built-in receiver. Most modern transceivers have at least two VFOs, so working split is not difficult.

Let's imagine a scenario, where you are tuning across the DX SSB part of 40m during the CQ WW SSB contest. On 7.052, you hear the following:

Station 1: "Seven One Five Seven, Seven One Five Seven and this frequency, this is Echo Alpha Eight Bravo Hotel, Contest." (Without even saying the word "CQ," EA8BH is calling CQ and listening on both 7157kHz and 7052kHz for replies.)

You should now switch over to your other VFO, tune your receiver to 7.157, and listen for people calling EA8BH. Once you hear someone calling him, then switch back to your first VFO on 7.052, and see who he picks up. You will probably hear him say something like:

Station 1: "K8AQM, five nine three three", indicating that he is working K8AQM, and sent him a signal report of 59, and that his CQ Zone is 33.

Switch back to your second VFO and you may hear:

Station 2:"Roger, you're five nine four" K8AQM replies in kind with a signal report and his CQ Zone, which is Zone 4.

While K8AQM is making his transmission to EA8BH, you should adjust your VFO to make sure you are on the exact same frequency as K8AQM. Then, set your second VFO to transmit, and your first VFO to receive (on 7.052, naturally). When EA8BH indicates he is ready for his next QSO, probably by saying something like:

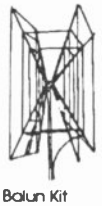
Station 1:"Thank you. Seven One Five Seven, Echo Alpha Eight Bravo Hotel." Just give your call once on 7.157, and you may be the next one to work EA8BH.

As you can see, it's a little funny working split, but once you get the hang of it it works quite well. Don't be surprised if the DX changes his or her listening frequency from time to time. As broadcasters open and close their transmissions, clear frequencies can suddenly become unusable for the DX.

On 80M SSB, the situation is a little different. Again, most of Europe, Africa and Asia have a much smaller 80m band than we here in the Americas. Most DX stations can work SSB on some of the same frequencies as U.S. amateurs. With a few exceptions, 80m ends at 3.800MHz in much of the world, and you will hear many Europeans operating between 3.750 and 3.800 where they can work U.S. Hams "transceive," transmitting and receiving on the same frequency. However, natural noise and local signals can cause a lot of interference on 80m, and some DX stations prefer to work split, transmitting outside the U.S. band, and listening in the U.S. band. Where should you look for these stations? Try 3.675 to 3.750. As well, Japanese and Australian amateurs have a very truncated 80m band. You be most likely to hear JA stations from 3.795 to 3.805, and VK s from 3.790 to 3.796.

Concerning 160 Meters, we in the Americas are very fortunate to have a 200kHz segment within which to operate. Most of the rest of the world has only very small segments on 160, some only a few kHz wide. On 160, most DX is worked on CW, and working split is quite normal. On 160m CW, there are two principal places to look for DX; 1.825 to 1.835MHz and 1.907.5 to 1.912.5MHz. The first "window" is where you can hear most European and Africa Amateurs. In many of these countries, the Amateur allocation on 160 begins at 1.825 or 1830MHz, and by custom and convention, 1.830-1.835MHz is a place where stations outside the Americas call CQ. As for 1.907.5-1.912.5MHz, this is the total 160m allocation for Amateurs in Japan, just 5kHz. No SSB operation is permitted by JA 160m operators, for obvious reasons. Listen in these two "windows" for DX stations. You may answer stations you hear, but don't call CQ on these frequencies - you may cover up a DX station that you can't hear but someone else can. DX stations will indicate their listening frequency as follows:

Station 1: "CQ TEST 23 23 DAØHQ DAØHQ TEST" In this example, DAØHQ is listening on 1.823MHz for replies. Armed with your two VFOs, and adapting the 40m SSB example above, you should call them on their listening fre-



quency. With a bit of luck and good timing, you should be able to make the contact without much effort.

SSB is a tough mode for working DX on 160m. Noise levels are so high that intelligibility is a severe problem in this mode. Paradoxically, while working split might alleviate this somewhat, it is hard to get listening frequencies across when calling CQ, so much SSB DX work is done transceive. SSB DX is most often heard between 1.840 and 1.850. Listen carefully for instructions, should the DX station be working split.

Contest of the Month - *CQ* Worldwide DX

SSB: 0000U Saturday 24 October to 2359U Sunday 25 October 1998.

(PDT: 5pm Friday 23 October to 4pm PST Sunday)

(EDT: 8pm Friday 23 October to 7pm EST Sunday)

Note: Most of North America switches back to standard time on the last Sunday of October.

CW: 0000U Saturday 27 November to 2359U Sunday 28 November 1998.

(PST: 4pm Friday 26 November to 4pm Sunday)

(EST: 7pm Friday 26 November to 7pm Sunday)

The *CQ* WW is not just the contest of the month, it is the premiere operating event of the entire year. This fifty-year-old institution of Amateur Radio attracts more participants from more countries than any other contest. This contest was at one time considered for inclusion in the Guinness Book of Records as the world's largest sporting event, but the estimated 50,000 or more participants could not be verified to Guinness' exacting standards. *CQ* receives almost 10,000 actual log entries each year for these two contests. The *CQ* WW also attracts its share of DX peditions, and there are many countries that you can work easily in the *CQ* WW that are virtually devoid of activity at any other time. If you want to work DX, then *CQ* WW is the time to do it.

With all this activity comes tremendous crowding on the six traditional HF bands. Particularly on 20 and 40 Meters, it can be very hard to find a spot on which you can profitably call CQ, and completely clear frequencies are almost unheard-of.

The *CQ* WW is actually two contests: one SSB contest at the end of October, and a CW contest at the end of November. There is also an RTTY contest called the *CQ* WW in late September, but it operates under quite different rules, and does not attract anywhere near the volume of participation.

The exchange in the *CQ* WW is a signal report and your *CQ* WAZ Zone (see January 1998 ***Worldradio***). The forty WAZ Zones, DXCC countries, WAE countries (see August 1998 ***Worldradio***), the Asiatic part of Turkey (TA2, 3, and higher), and "African Italy" (IG9 and IH9 - both in Zone 33) count as multipliers on each band on which you work them. For those in North America, contacts with stations in your own country are worth zero QSO points (although valuable as multipliers), with other countries in North America, two points, and with stations on other continents, three points.

A typical *CQ* WW SSB contest contact might sound like this:

Station 1:"CQ Contest, Three Victor Eight Bravo Bravo." (3V8BB in Tunisia calls CQ very succinctly, pausing only a few seconds to listen for replies.)

Station 2: "Whiskey Papa Two Zulu." (WP2Z replies by sending his call sign once.)

Station 1:"WP2Z, you're five nine three three" (3V8BB sends WP2Z a signal report, the universal 59, and his CQ WAZ Zone. Tunisia is in Zone 33. He then listens for WP2Z's reply.)

Station 2:"Roger, five nine eight" (WP2Z replies with a signal report and his zone - the U.S. Virgin Islands are in CQ WAZ zone 8.)

Station 1:"Thank you, Three Victor Eight Bravo Bravo" (3V8BB thanks WP2Z for the contact, and is standing by for other stations to call him. If he gets no response, he'll call CQ again.)

The *CQ* WW Contest Committee, chaired by Bob Cox, K3EST, has led the world in establishing high standards for log-checking and accuracy. Primarily aided by computers, the committee does an unparalleled job of verifying logs and this has helped spur a new emphasis by contesters to take additional care to make sure they log every call sign and exchange correctly. Those who submit their logs by diskette or e-mail can obtain a detailed analysis of their log within a few months of the entry deadlines. We all make errors

Contest	Date/Time	Bands	QSO points	Multipliers	Exchange	Entry Categories	Logs
RSGB 21/28MHz SSB (UK)	0700Z 3 Oct 1900Z 4 Oct	21.2-21.35 28.45-29.1	3pt/QSO Work UK stations only	UK counties UK stations will send a 3-letter county abbreviation	RST Ser#	Single op, Single op QRP Multi-op single tx	14 Nov G3UFY
VK/ZL/Oceania SSB	1000Z 3 Oct 1000Z 4 Oct	80-10M SSB	3pt/10m 2pt/15m 1pt/20m 5pt/40m 10pt/80m work Oceania only	Oceania prefixes on each band Score each band separately, then sum scores from all bands.	RST Ser#	Single op all bands Multi-op all bands SWL	6 weeks ZL1AAS (even) VK3APN (odd)
European Autumn Sprint SSB	1500Z 3 Oct 1859Z 3 Oct	80-20M SSB	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days I2UIY
California QSO Party	1600Z 3 Oct 2200Z 4 Oct	160-2M CW & SSB	2pt/SSB 3pt/CW Work CA only	California Counties (58)	RST Ser# QTH	Single Op, All bands Multi-op, single tx	15 Nov Box 853 Pine Grove CA 95665
VK/ZL/Oceania CW	1000Z 10 Oct 1000Z 11 Oct	80-10M CW	3pt/10m 2pt/15m 1pt/20m 5pt/40m 10pt/80m work Oceania only	Oceania prefixes on each band Score each band seperately, then sum scores from all bands.	RST Ser#	Single op all bands Multi-op all bands SWL	6 weeks ZL1AAS (even) VK3APN (odd)
European Autumn Sprint CW	1500Z 10 Oct 1859Z 10 Oct	80-20M CW	1pt/QSO	None	your call, other stn's call, Ser#, name	Single operator only	15 days OK2FD
Worked All Germany	1500Z 10 Oct 1500Z 11 Oct	80-10M CW & SSB	3pt/QSO Work Germany only	German districts (first letter of DOK) on each band	RST Ser# DLs send DOK	Single Op: Both or single mode, QRP Multi-op, single tx SWL All entrants may use PacketCluster	1mo. Box720 427 D-10123 Dresden
Pennsylvania QSO Party (USA)	1600Z 10 Oct 2200Z 11 Oct 05-13Z Off time	160-10M CW & SSB	1pt/SSB 1.5pt/CW 2pt/160, 80m CW 200pt/QSO with W3YA Work Penn. only	Pennsylvania counties (67) Penn. stations will send a 3-letter county abbrev. x2 if you are QRP	RST QTH	Single op: High power, 100w, QRP Multi-op: Single tx, multi-tx	15 Nov Box 614 St.College PA 16804 USA
Ibero-America Contest (Spain)	2000Z 10 Oct 2000Z 11 Oct	160-10M SSB	3pt/Ibero-Am. 1pt/others	CE CO CP CR CT CX C3 C9 DU EA HC HI HK HP HR KP4 LU OA PY TG TI XE YN YS YV ZP 3C + their DXCC dependencies on each band	RS Ser#	Single op: all bands, QRP Multi-op single tx SWL	30 Nov Conception Arenal 5 08027 Barcelona
RSGB 21/28MHz CW (UK)	0700Z 10 Oct 1900Z 11 Oct	21-21.075 28-28.075	3pt/QSO Work UK stations only	UK counties UK stations will send a 3-letter county abbreviation	RST Ser#	Single op, Single op QRP Multi-op single tx	14 Nov G3UFY
Texas QSO Party	1400Z 17 Oct 2200Z 18 Oct	80-10M CW & SSB	1pt/SSB 2pt/CW 5pt/Mobiles 7pt/Mobiles in CW Work Texas only	Texas counties	Name	Single op: Fixed, Mobile Multi-op: Fixed, Mobile	30 Nov Box 540291 Houston TX 77254-0291 USA
YLRL Anniversary Party SSB	1400Z 7 Oct 0200Z 9 Oct	80-10M SSB	1pt/QSO on your section 2pt/QSO with others	ARRL Sections, Canadian Provinces and territories, DXCC countries	RST Section	Single Operator only	30 Days K0JFO
CQ WW DX SSB	0000Z 24 Oct 2359Z 25 Oct	160-10M SSB	0pt/VE 2pt/NA 3pt/DX	DXCC + WAE countries + CQ Zones	RS CQ Zone	Single Op: All Bands, Assisted, Low power, QRP, Single band Multi-op: Single of multi-tx	1mo. CQ mag.
ARRL Sweepstakes CW	1800Z 7 Nov 0300Z 9 Nov	160-10M CW	3pt/QSO Work stns once, regardless of band	ARRL Sections Count once, regardless of band	Ser#, Pwr class, ur call, Yr first licenced Section	Single Op: High power (A) Low Power (B), QRP (Q) Multi-op single tx	1mo. ARRL
Japan Int'l DX	2300Z 13 Nov 2300Z 15 Nov	80-10M SSB	1pt/QSO 2pt/80, 10m Work Japan only	Japanese Prefectures (50) on each band JAs will send a 2-figure prefecture number	RST Ser#	Single Op: All bands, Single band Multi-op, single tx	31 Dec Box 59 Kamata Tokyo 144
European DX RTTY (Germany)	0000Z 14 Nov 2359Z 15 Nov	80-10M RTTY	1pt/QSO 1pt/QTC In RTTY contest, work stations outside Europe	WAE Countries worked on each band. x2 on 10/15/20 x3 on 40m x4 on 80m	RST Ser#	Single Op: All bands, Single band Multi-op: Single or multi-tx All entrants may use PacketCluster	15 Dec Box 1126 D-74370 Sersheim Germany
OK/OM DX Contest (Czech Republic)	1200Z 14 Nov 1200Z 15 Nov	160-10M CW & SSB	3pt/QSO Work OK, OL and OM only	Czech and Slovak counties on each band. OKs, OLs and OMs send a 3-letter county abbreviation	RST Ser#	Single op all bands: Mixed mode, CW, SSB, QRP Multi-op SWL	15 Dec OK2FD
Rhode Island QSO Party (USA)	0000Z 10 Oct 2359Z 11 Oct	SSB: 25 kHz up CW: 40 kHz up General & Novice bands.	1pt/Phone QSO 2pt/CW or digital	Non-RI stns: number of RI counties 100pt bonus for WA1RR. RI stns: state, province & DXCC	RI stns send RST & county non-RI stns: RST, State, prov or DXCC	Single or Multi-operator: All HF Bands (except WARC), all modes, QRP and DX	15 Nov KB1LN P.O. Box 995 Charlestown, RI 02813
Illinois QSO Party	1800Z 18 Oct 0200Z 19 Oct	160-2M CW: 3550, 7050 14050, 21050, 28050. SSB: 3890, 7290, 14290, 21390, 28390.	1pt/SSB 2pt/CW	Non-Il: x IL counties worked IL stns: x States, VE provs and max of 5 DX countries. 1 multiplier for 8 QSOs with same IL county. Dupe sheet if over 100 QSOs.	IL stns: RST county Non-IL stns: RST + state, country, prov.	Not stated	16 Nov RAMS c/o John Matz, KB9II 7079 W. Ave. Hanover Park, IL 60103

Addresses: CQ - 76 N Broadway, Hicksville, NY 11801 USA; ARRL - 225 Main St, Newington, CT 06111 USA; Call sign - Callbook Address; Bands: The 30, 17 and 12M bands are never used in any contest. Official forms and complete rules may be available from me. Please send SASE for details. For more listings check the contest page on the **Worldradio** web site: www.wr6wr.com

when copying call signs or exchanges, and the committee's analysis can show you where you might improve.

Official forms are available from *CQ* Magazine, 76 North Broadway, Hicksville NY 11801, should you decide to log on paper. If you prefer to log with a personal computer, CT, NA and TR-log all handle the *CQ* WW flawlessly. The committee asks that if you log using a computer, please send them a copy of your log on diskette, or e-mail it to them at ssb@cqww.com or cq@cqww.com, as appropriate.

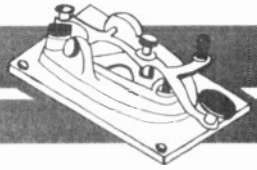
Other October contests

There are state QSO Parties for California, Texas and Pennsylvania that will certainly fill the bands with activity. As well, the Radio Society of Great Britain sponsors contests on 15 and 10 Meters in October. VK/ZL and the South Pacific are the focus in their annual contests this month, and German amateurs will be out in large numbers for the Worked All Germany contest. The Young Ladies' Radio League sponsor their annual Anniversary Parties this month and next.

Mea Culpa

When the August issue came out, the contest calendar included some erroneous information. The rules for the Maryland-DC QSO Party were incorrect as published. The rules had changed since I first included this contest in the calendar a few years ago, and I failed to notice those changes. I apologize to anyone who found themselves on the wrong side of those rules, and to the hard-working volunteers of the Antietam Radio Association who ran this event. I'll do better next August. Good luck in the contests.

Silent Keys



(continued from page 23)

JUD WHATLEY, W4NJZ

Jud Whatley, 53, of Snellville, Georgia died as the result of a car accident the last week of July, 1998. He served as the president of the Quarter Century Wireless Association Peach State Chapter 49 and was involved in many other QCWA and ARRL activities. Jud was a writer and did not hesitate to share an interesting story with his fellow amateurs. He wrote several articles for ***Worldradio***, the last one being "Georgia Students Experience 'Live' Emergency Demo" that appeared in the August issue. His stories and his sense of humor will be missed by his family, friends, and the staff at ***Worldradio***.

HARRY ANGEL, VK4HA

Australia's oldest ham, Harry Angel, VK4HA, died 16 August. He was 106. A UK native, Angel arrived in Australia via California after a trip around the Horn as a young sailor. During World War I, he was posted to a communications unit in North Africa. After the war, he settled in Brisbane and eventually opened a radio repair shop. He became an amateur in 1935. When World War II broke out, he fudged his age and re-enlisted, serving in a radio repair unit in Brisbane. He was known for his ragchews, not contesting. — *QNews, ARRL Letter*

ARNOLD BRILHART, K6GF

Amateur Radio pioneer Arnold R. Brilhart, K6GF, of Vista, California, died 17 May. He was 93. Brilhart was first licensed as 2DN in Yonkers, New York, sometime prior to 1920. The spark signal from 2DN was heard calling 8AYN 11 December 1921, by Paul Godley in Scotland, and the call sign is among those on the cover of the January 1922 edition of *QST*. His fame extended into the area of music where he was a well-known jazz musician and had designed mouthpieces for woodwinds.

L. T. JONES, W8RLW

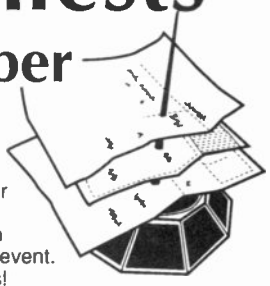
The chairman of license exams at the Dayton Hamvention, L. T. Jones, W8RLW, of Trotwood, Ohio, died 17 August. He was 78. Jones was an Volunteer Examiner. He was the volunteer exam chairman for the Dayton Amateur Radio Club and the Dayton Hamvention for several years and an ARES Assistant Emergency Coordinator in Trotwood.

ROY GREGSON, W6EMT

EMTECH owner Roy Gregson, W6EMT, of Bremerton, Washington, died 21 August 1998. He was 70. His family has indicated that existing orders will be filled, but no decision has been made about the future of EMTECH.

Hamfests

October



Do you have a hamfest coming up? Send your information to our 28th St. office at least 2 months in advance of your event. We'll send prizes!

ARIZONA

The **Old Pueblo Radio Club** Swapmeet 17 October, 7 a.m.-2 p.m., at De Anza Drive In Theater, SE corner of 22nd and Alvernon, Tucson. Dealers, displays and exhibits. $5 individual tailgate space, $1 individual admission, under 12 free. For more information contact George Lynch, KAITY, P.O. Box 42601, Tucson, AZ 85733. Please include e-mail address.

CALIFORNIA

The **Inland Empire Amateur Radio Club** Fontana Swap Meet on 10 October at A. B. Miller High School. Admission is free, table price $6. Contact: Bill Gruber, KD6BGU, A.B. Miller High School, 6821 Oleander Ave., Fontana, CA 92335; Billg@mars.fontana.k12.ca.us; 909-822-4138.

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The **Mount Diablo ARC** Pacificon '98 Hamfest will be held 16-18 October at the Sheraton Hotel at Concord's Buchanan Airfield. (28 miles east of San Francisco near Interstate 680.) Talk-in: 147.06 + (PL 100Hz). VE testing, swapmeet, T-hunt, attendance prize drawings and exhibitors of Amateur Radio equipment. A banquet featuring guest speaker columnist Gordon West on Saturday night followed by a Wouff-Hong ceremony at midnight for ARRL members. Forums on Saturday and Sunday. Admission $5/advance or $7/at door. Contact: Pacificon '98, P.O. Box 272613, Concord, CA 94527; Tel. 925/932-6125, E-mail Pacificon@designlink.com; Web: www.mdarc.org

FLORIDA

The **Egypt Temple Amateur Radio Association** on 10-11 October will host Hamfest and Computer Show in the Unit Building, 4050 Dana Shores Drive, Tampa, FL 33622. Tables $15 each. Tickets will be required by all except children under 10 years of age. Electricity will be available, but customers must supply their own cable. Talk-in will be on 147.105. Table reservations and tickets can be obtained from J. F. Strom, K9BSL, 813/822-9107, 233 34th Avenue, North St. Petersburg, FL33704-2241. Food and drink will be sold by Egypt Temple members.

INDIANA

The **Boone-Clinton Co. ARC** Hamfest on 25 October, 8 a.m.-1 p.m., at the Boone Co. Fairgrounds, Lebanon, Indiana. (I-65 to Exit 138) VE testing nearby 9 a.m.-11 a.m. Call Don Lecklitner, K9DFK, to register for testing at 765/249-2020. For tables contact: Don Allen, KG9LT, 317/873-5642 or email: nella@iquest.net

MARYLAND

The **CARA Hamfest,** 4 October, 8 a.m.-3:30 p.m., at the Howard County Fairgrounds. Admission $5 per person (unlicensed spouse and children free). Tailgating $10 per space. Tables $20 each. Call 410/796-2587 for table reservation. Free VE exams. Large tailgating area and large covered area. Talk-in: 146.52, 147.135/R+, 222.32/R+. for information write: CARA Hamfest Committee, P.O. Box 911, Columbia, MD 21044. (After 15 September please phone 410/796-2587 prior to mailing.) www.ocbs-nt-server.umaryland.edu/cara/hamfest.htm

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The **Carroll County ARC/ PennMar ARC** Mason Dixon-Computer & Hamfest 25 October, 8 a.m. (vendor setup 6 a.m.), at Carroll County AG Center, Smith Ave., Westminster, MD. Admission $5, tailgate $5 (per 12 foot space), 8' inside tables ($15 if prepaid before 10/1/98) $20 on day of the Hamfest. Advance table registration: Mason-Dixon Computer & Hamfest, P.O. Box 763, Hanover, PA 17331, or George Johns, N3JKY, 717/633-6641 or E-mail gjohns@sun-link.com. VE Testing. General information www.qis.net/~k3pzn, talk-in 145.41

MISSOURI

The **Saint Louis ARC** Halloween Hamfest will be held 31 October. Free admission, all indoors. Doors open to public 8 a.m. Main prize drawings 1 p.m. Commercial tables $15, with electric; non-commercial, $8. Advance tickets $1 ea, 6 for $5. VE Exams, Food area. Talk-in: 146.91. At Kirkwood Community (Center. I-270 to Dougherty Ferry Rd., East to Geyer Rd. and south to Hamfest.) Info, Steve Welton, WBØIUN, 9847 Arv-Ellen, St. Louis, MO 63123; 314/638-4959; SLW@ partyline.net

NEW JERSEY

The **Bergen ARA** Pall Fall Hamfest will be held 10 October at Fairleigh Dickinson University. Admission $5, with XYLs and harmonics free. Seller admission $10. Special features include VE testing, plenty of parking, food and restrooms. Take Rte.4 east/west to the River Road exit. Follow the signs into the Hamfest area. Talk in: 146.790 -600. Contact: Jim Joyce, K2ZO, at 201/664-6725, please no calls after 10 p.m.

NEW YORK

The Hall of Science Amateur Radio Club Hamfest will be held 4 October at the New York Hall of Science parking lot- Flushing Meadow Corona Park, 47-01 111th Street, Queens, NY. Doors open for vendors to set up at 7:30 a.m., Buyers admitted at 9 a.m. Free parking, door prizes, food and refreshments. Admission by donation, Buyers $5, Sellers $10 per space. Talk-in on 444.200 Repeat PL 136.5

For further information call at night only: Stephen Greenbaum, WB2KDG, 718/898-5599; Email: WB2KDG@bigfoot.com

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The **Radio Amateurs of Greater Syracuse** Hamfest, 3 October, 8 a.m.-2 p.m., at the Pompey Fire Depart-

ment (Interstate 81, Exit #15, go East 7 miles). Breakfast, lunch, forums, ARRL, awards, VE Exams. Set up Friday, 4 p.m. and Saturday at 6 a.m. Admission $5 (16 and older); outside flea market $3; inside flea market $10 w/table or $3 BYO/table. Vivian Douglas, WA2PUU, 315/469-0590 for information or www.pagesz.net/~rags. Talk-in: 147.90/30 MHz.

NORTH CAROLINA

The **Maysville Hamfest** will be held 11 October at the Community Center in Maysville, NC. Opens 8 a.m. Entrance is free. Tickets will be sold to participate in the prize drawings. Tailgating is free. Vendor space is limited. A catered lunch will be available. VE exams will not be given this year. Talk-in will be on 146.685. For further information contact Jo Ann Taylor, WD4JYR, 220 Anita Forte Dr., Swansboro, NC 28584; 252/393-2120.

OHIO

The **Northwest Ohio ARC** Lima Hamfest and computer show will be held 11 October at Allen County Fairgrounds (1 mile east of I-75 exit 125a-b.). Free parking, free camping ($10 for electric if you need). Tickets $4 advance, $5 at the door. Tables $10/8ft, $4.00/half table. Talk-in: 146.07/67, 146.34/94, 147.63/03, 448.625/3.B25, 449.775/4.775, 449.625/4.92 0utside sales available at $3/8'x18' space. Ticket and table reservation to NOARC, P.O. Box 211 Lima, OH45802 (SASE please). Info phone 419/647-6321 or 419/358-7376. Please no calls after 9 p.m.

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North Central Ohio Hamfest will be held 18 October, 8 a.m.-2 p.m., at the Ashland County Fairgrounds, Ashland, OH. Talk-in: 147.105 MHz (PL Tone 71.9 Hz). Contact Dave, N8UCA, at 419/289-1082, or Mary, KB8QCJ, at 419/368-4294 for details.

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The **Marion ARC** HamFiesta and Computer Show will be held 25 October, 8 a.m.-3 p.m. at the Marion County Fairgrounds coliseum. Prizes, refreshments and ample parking available. Tickets $4/advance, $5/at door. Tables $10. Talk-in: 147.90/30. For tickets or tables please contact: Karen Eckard, N8KE, 6583 So. Street, Meeker (Marion), OH 43302; Tel. 614/499-3565 or Betty Krist, N8UDT, 132 N. Seffner Ave., Marion, OH 43302; Tel. 740/387-3533 (after 5 p.m.).

OREGON

The **Mid-Valley ARES** Swap-Toberfest, Amateur Radio Emergency Services Convention 24 October, 9 a.m.-3:30 p.m., will be held at the Polk County Fairgrounds in Rickreall, OR. Set-up: 6-9 p.m. Friday, 23 October and Saturday, 24 October at 7 a.m. Swap tables, commercial dealers, meetings and seminars. Additionally, Emergency Communications vehicles will be on display from Marion and Polk County Emergency Management, Civil Air Patrol, American Red Cross, the Oregon State Police, and others as available.

Self-contained RV spaces available. Talk-in: 146.86. For information contact: Bob Boswell, W7LOU, 503/623-2513; Email: w710u@goldcom.com; Web: www.teleport.com/~n7ifj/swaptobe.htm.

PENNSYLVANIA

The **Mt. Airy VHF Radio Club** ("PACKRATS") Hamarama will be held 4 October at the Bucks County Drive In, Rt. 611 (4 miles north above the Willow Grove Exit #27 of the Pennsylvania Turnpike) between County Line Road and Street Road, Warrington, PA. Doors open to vendors at 6 a.m. for outdoor tailgating spaces for $8 each (plus general admission charge). New and used Amateur Radio equipment, electronic components and computer hardware/software vendors are invited to participate Open to the public at 7 a.m. for $5 donation. Talk-in on 146.52 (simplex). For more information contact: Mark Schreiner, NK8Q 662 Cafferty Road, Ottsville, PA 18942, by e-mail at nk8q@ amsat.org or call 215/497-1414.

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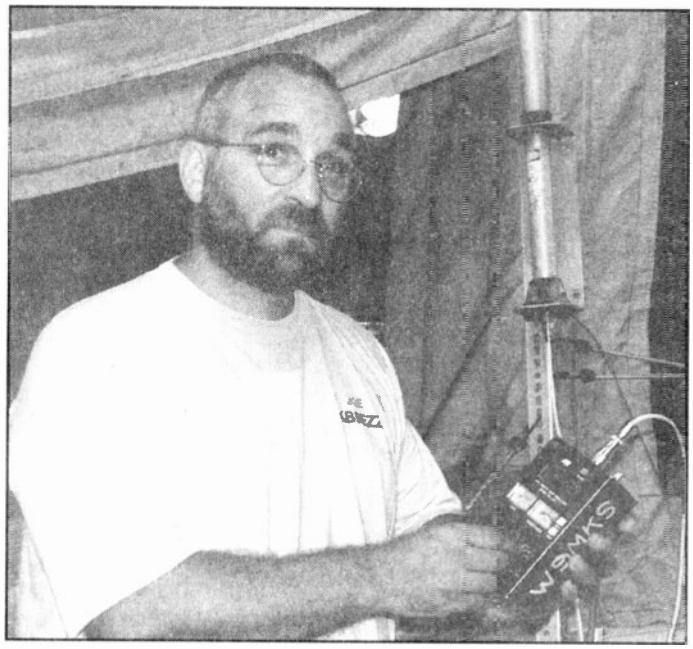
The **Foothills ARC** Hamfest will be held 18 October, 8 a.m.-2 p.m., at Hose Co. No. 1., Greensburg, PA. Talk-in: 147.18(+). Free admission/parking. Tables $10/8' table. To reserve a table Contact: Al Compton, N3LQX at 724/523-3727. The Hamfest is handicap/wheelchair accessible. See our Homepage on the Internet at www. geocities.com/Heartland/Acres/7896.

SOUTH CAROLINA

The **Sumter ARA** 12th Annual Hamfest, Computer Fair will be held 24 October. Commercial vendors, Amateur Radio and computer flea market inside and outside. VE testing, seminars, hourly door prizes and food available. Location: Sumter County Exhibition Center, 700 W. Liberty St., Sumter, SC. Doors open from 8 a.m.-4 p.m. Talk-in: 147.015.



Joe Tokarz, KB9EZZ, adjusts Field Day antenna with Starved Rock Radio Club MFJ Antenna Analyzer, won in the *Worldradio* monthly club drawing.

Admission $5/advance, $6/at door. For advance tickets send check and SASE to SARA, P.O. Box 193, Sumter, SC 29151-0193. (Advance tickets received after October 17th will be held at the door.) For dealer packages or more information contact Steve Heriot, KC4ZLB, 115 S. Washington St., Sumter, SC 29150-5127; 803/773-2282, e-mail sheriot@ftc-i.net, or Greg Czerniak, W4GRC, 2220 Highway 261 S, Wedgefield, SC; 803/494-5565; e-mail grcljc6@ftc-i.net.

TENNESSEE

The **Greater Memphis Amateur Radio Operators** MemFest '98, will be held on 10-11 October at 2585 N. Hollywood at I240, Memphis, TN. Open Saturday 8:30 a.m.-4 p.m. and Sunday 8:30 a.m.-2 p.m. Talk-in: 146.22/146.82. Admission $5. Tables: flea market $25, dealer booth, $55. VE exams. For information call Lee Bowers, KA4KVW, 901/867-3461 or Ben Troughton, KU4AW, 901/372-8031. Write: MemFest '98, P.O. Box 751841, Memphis, TN 38175-1841.

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The **Tri-Cities Hamfest** will be held on Saturday 17 October at the Appalachian Fair Grounds, located off 1-181 in Gray, TN. A large drive-in indoor and outdoor flea market space is available. RV hookups. Admission is $5.00. The Hamfest is sponsored by the **Kingsport, Bristol**, and **Johnson City Radio Clubs**. Mail inquiries to P.O. Box 3682, CRS Johnson City, TN 37602.

TEXAS

The **International Hamfiesta** and Computer Show will be held 24 October, 8 a.m.-5 p.m., and 25 October, 9 a.m.-2 p.m. Registration $5/advance, $6/ door. Tables $10/advance, $12/door. Forums for ARRL, satellite tracking, computer upgrading, packet radio and more. VE exams. QSL card verification. RV overnight hookups nearby. Talk-in: 146.88. Contact: Clay Emert, K5TRW, P.O. Box 971072, El Paso, TX 79997; 915/859-5502; email: cemert@dzn.com

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The **Temple ARC** Fall 'Fest will be held Saturday, 3 October at Belton, TX. (From I-35 take Exit 292 to the Bell County Expo Center.) Admission $1. Handicap accessible. Huge indoor tailgate arena. Doors open 7 a.m. Talk-in: 146.820(–), PL 123.0 Hz. Door prizes include Icom IC-T7A/HP 2M handheld, a Bearcat BC-60XLT handheld scanner, and an MFJ-112 DXers World Map Clock and Calendar, plus many hourly prizes.

Indoor tailgate spaces $10. Tables $10 additional. Setup 5:30-7 a.m. Free electricity. Commercial vendor spaces with tables $25 each for Friday night early, setup 2-10 p.m. (reserve by 25 September), or $20 each for Saturday setup, 5:30-7 a.m. Free electricity.

For info contact: Temple ARC, P.O. Box 4511, Temple, TX 76505. Tel.: Mike LeFan, WA5EQQ, 254/7733590; e-mail: hamexpo@tarc.org; Web: www.tarc.org.

WASHINGTON

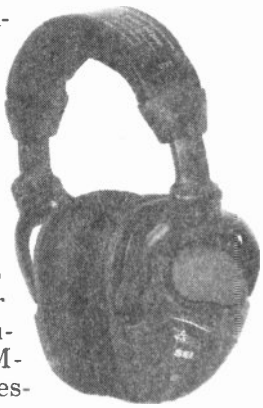
The **North Kitsap ARC** Hamfest will be held 10 October, 9 a.m.-3 p.m. at President's Hall, Kitsap County Fairgrounds, NW corner of Fairgrounds Road at Nels Nelson Rd. Talk-in: 145.31(-) KC7FA repeater or 146.52 simplex. Adm. $4 for 12 and over (under 12 free). Tables $15 ea. (1 free admission) until 9/30/98; $20 ea. afterwards. Commercial spaces $30. Contact Susan Johnson, AB7MD, P.O. Box 1226, Poulsbo, WA 98370, packet: AB7MD@N7WE.# WWA.USA.NOAM or e-mail: sujohnso@linknet. kitsap.lib.wa.us.

Worked All RAC Award

Radio Amateurs of Canada (RAC) has announced its new Worked All RAC (WARAC) Award. The new award, which became effective 01 July is available to all amateurs worldwide. A certificate will be issued to any amateur who confirms two-way communication with an Official RAC Station using the RAC suffix in at least 10 of the 13 Canadian prefixes — VE1, VA2, VA3, VE4, VE5, VE6, VE7, VE8, VE9, VO1, VO2, VY1, VY2. For more information, see http://www.rac.ca/warac.htm An application form also is available at http://www.rac.ca/awapp2.htm — *ARRL Letter*

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

Starline PM-2000 Headphones

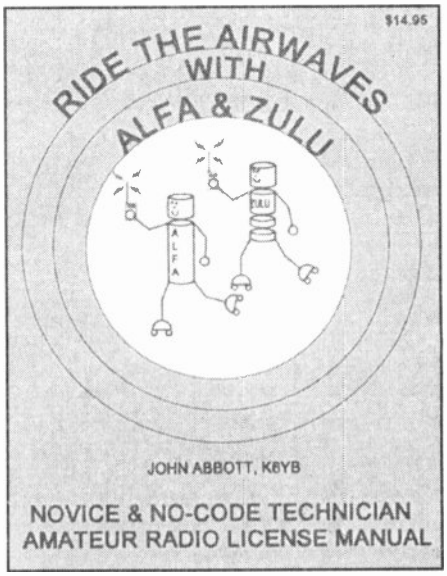


Starline Electronics International* (SKI) of Spencer, Massachusetts proudly introduces its Model PM-2000 Studio Monitor Headphone to the Amateur Radio community. The PM-2000 is a professional stereophonic headphone distinguished by deep, luxury padding and separate woofer and tweeter elements that produce thundering bass and crisp treble. The ability of the PM-2000 to reproduce this full range audio (18 Hz - 20 kHz) without sounding muffled or 'tinny', and the full-sized but lightweight design, make it a natural for DXers, Ragchewers, and SWLing. In addition, these versatile headphones produce stunning sound for both the CD/Hi Fi music lover and the sound studio pro. SKI is planning a boom-mic version/adapter kit available soon for the PM-2000.

Hams will appreciate the fine quality and attention to detail obvious throughout the PM-2000. Additional details/features include ergonomic design for comfort-of-wear over many hours, nine position detent earcup height adjustment on each side for proper fit, earcup rotation of 90 degrees that enables low-profile storage, and a 9 foot straight oxygen-free cable (OFC) that is soft and flexible. The OFC terminates into a gold 1/8 inch stereo plug. A gold 1/4-inch stereo adapter plug is included. Impedance is 66 Ohms, sensitivity is 104 dB. The headphones are handsome two-tone grey and black with gold SKI logo. The PM-2000 makes a great gift and comes packaged in an attractive window box. SKI offers a 30-day money back guarantee and a one-year limited warranty. SEI's leadership has previous and extensive experience in the aircraft audio industry where intelligibility and reliability of communications are critical. SKI President and CEO is Dana G. Reed, KD1CW.

The PM-2000 is Amateur Radio discount cash priced at $74 (check or M.O. recommended). SKI, 70 Brooks Pond Road, Dept. PRWR-98, Spencer, MA 01562-1006. Tel.: 508\885-9825; FAX: 508\885-3961 E-mail: starline@gis.net; Web: www.gis.net/~starline

Ride the Airwaves with ALFA & ZULU



Cartoon Novice and No-Code Technician Amateur Radio License Manual.

"Ride the Airwaves with ALFA & ZULU" targets middle and high school students or anyone ages 8 to 88, who enjoys reading cartoons, but doesn't want to become an electronic engineer in order to become a radio Ham. The book is written with the KISS principle — Keep It Short & Simple! There is enough information to whet the appetites of those

who may be inclined towards a career in electronics or science, and more advanced material is referenced.

The Phonetico characters, including the leading characters, ALFA & ZULU, and their cat, WHISKEY, will steal the reader's heart. The bodies of the Phoneticos are Morse code letters, in the form of cylindrical electromagnetic waves, traveling through space.

Books in Print ISBN #0-9651088-0-5, 304 pages, $14.95. Completely illustrated Phonetico™ *cartoon* character license manual, with 43 Morse code and 16 binary characters. 80 Novice lessons, and 54 Technician lessons. Ham crossword puzzles. Published 1993, 1996, & 1998. Author: John Abbott, K6YB (licensee since 1947). Publisher: *ABTRON/X,* POB 220066, Newhall, CA 91322 Tel. 805/222-7384; 805/222-7385; Web: http://home.earthlink.net/abtronix/ e-mail: abtronix@earthlink.net

Available in many radio-electronic stores, the Radio Book Store (RBS), and Barnes & Noble.

Code Practice Oscillator

MFJ's new Code Practice Oscillator is the world's finest. It was specially designed for demanding classroom use and abuse. It's a professional quality product built from the highest quality materials to last a lifetime.

It produces a true pure sinewave — not a harsh sounding square wave that nearly all code oscillators produce. You'll hear the clearest, sweetest sounding code you have ever heard. It actually enhances learning Morse code.

You get low distortion CW -- typically less than .2% total harmonic distortion from its BTL (Bridge-Tied-Load) amplifier. It'll fill an entire room with beautiful sounding code. MFJ-554 delivers a full one Watt into its internal 3 inch speaker or you can plug in an external speaker for more volume.

Key clicks are especially annoying in classrooms because they tend to bounce around the room, magnifying the distraction. The MFJ-554 removes all traces of harsh key clicks so you can concentrate on learning the code without distraction. Five milliseconds of symmetrical rise and fall time shapes the keyed oscillator wave form to remove key clicks -- an MFJ exclusive.

MFJ-554 has a volume control and adjustable tone control from 400 to 1000 Hz. Has an on/off switch, power on LED, 1/4 inch key jack, 3.5 mm external speaker jack and coaxial DC power input jack. Requires 12 VDC. Rugged all metal enclosure measures a compact 4 3/4Wxl 1/2Hx51) inches.

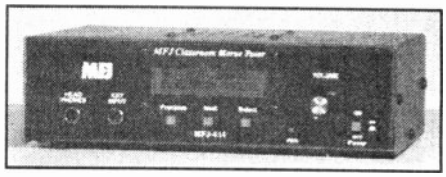
To order or for your nearest dealer, call 800/647- 1800; FAX: 601/323-6551; e-mail: mfj@mfjenterprises.com; Web: www.mfjenterprises.com.

MFJ Classroom Tutor

MFJ's new Code Tutor is truly the Cadillac of all Morse Code trainers! It is designed examiners, Ham clubs, teachers, Elmers, schools and Hams who want the best there is.

Professional features include an LCD readout, printer port, audio tape recording output, loud powerful audio with true sinewave and no keyclicks, computer interface, stores 16 FCC exams for VECs, HF/VHF radio interface for on-the- air practice and is a full featured memory keyer . . . plus much more!

MFJ-414 has everything that's in the MFJ-418 pocket size code tutor and more! You get all the popular features of the MFJ-418 that have made it the most widely used code tutor in the world!



Printer port is useful for printing out correct answers for students to check copy after a code practice session. You can record high quality code tapes for additional home study. A serial port lets you up or download custom practice groups to or from your personal computer.

If a student is having trouble with certain characters, you can build and save 3 custom sets (16 characters each) for extra practice. You can combine these to give you 48 characters for using the KOCH method. You can customize random words for practice too.

You can use your MFJ-414 with your 144/440 MHz FM handheld or HF transceiver for on-the-air Morse code practice with your buddies or an entire club. VECs can give up to 16 FCC exams. You can computer generate actual FCC exams and download them to the MFJ-414 to test future Hams and upgrades.

It's a full-featured memory keyer too! Has 1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly. You can practice sending into the MFJ-414 with an iambic paddle or straight key.

Use built-in powerful speaker or external speaker or headphones. Includes serial port cable open-end patch cable (soldering required). Use 12 VDC or 110 VAC. 8 1/2Wx2 1/4Hx6D inches.

To order or for your nearest dealer, call 800/647-1800; FAX: 601 -323-6551; e-mail: mfj@mfjenterprises.com; Web: www.mfjenterprises.com.

VE exam schedules

As a service to our readers, ***Worldradio*** presents a feature listing of those VE exams, times and locations which are sent to us. Please remember that our deadline for publication is three months in advance. For example, if your VE group is scheduling an exam for December, please have the information to us by mid-September. ***Worldradio***, 2120 28th St., Sacramento, CA 95818. Please mark the envelope "VE Exams." List the location (City), any information examinees should have (advance registration, etc.) and the name and telephone number of a person to contact for further information. Examinees should bring their original license (along with a photo copy), two forms of identification (at least one should be a photo), and required fee.

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

State	City	Contact	Notes
Alabama			
10/10/98	Rainbow Cty	Gene, KC4TFF 205/492-8194	w/i
Arizona			
10/10/98	Tucson	Joe, K7OPX 520/886-7217	w/i
Arkansas			
10/17/98	Gassville	Phil, AB5ZU 870/425-7406	p/r pref.
California			
10/10/98	Anderson	Al, 530/357-4834, N6BJ	p/r pref.
10/04/98	Chico	Jackie, W6YKU 916/342-1180	p/r pref.
10/17/98	Clearlake	N6UZQ, 707/994-1133	w/i
10/22/98	Colton	Harold, AB6RN 909/825-7136	p/r pref.
10/04/98	Concord	Gene, WW6H 510/254-5090	w/i only
10/16-18/98	Concord	WB6LQG, 510/427-4022 Pacificon 98	w/i
10/31/98	Culver City	Scott, K6PYP 310/459-0337	w/i
10/03/98	Culver City	Clive, AA6TZ 310/827-2538	w/i pref.
10/31/98	Escondido	Harry, WA6YOO 760/743-4212	p/r
10/06/98	Fremont	Dennis, K6DF 510/791-0914	w/i only
10/10/98	Harbor City	Elvin, N6DYZ 310/325-2965	p/r
10/24/98	Lake Isabella	HOTLINE 760/379-2947	p/r pref.
10/26/98	Montclair	Steve, 909/597-2249	w/i pref.
10/10/98	Petaluma	Dale, 707/762-9414	p/r pref.
10/17/98	Redwood City	Joe, KB6OWG 408/255-9000	w/i only
10/11/98	Sacramento	Dick, N6DK 916/383-2113	p/r
10/10/98	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
10/14/98	Santa Ana	Red Cross, 714/835-5381 ext. 140	w/i
10/17/98	Stockton	Mark, W6DKI 209/465-7496	w/i
10/10/98	Sunnyvale 1	John or Gordon 408/255-9000	w/i only
10/31/98	Upland	Warburg, WA6HNC 909/949-0059	p/r
Colorado			
	All Colorado	Exam recording 303/360-7293	
10/10/98	CO Springs	Erik, KG0XE, 719/596-5345	w/i
10/10/98	Denver	Glenn, WØIJR 303/366-0155	w/i pref.
10/17/98	Pueblo	Chas, 719/544-1613, Russ, 719/542-2039	w/i pref.
Florida			
10/17/98	Melbourne	Bill, WB9IVR 407/724-6183	p/r pref.
10/20/98	Middletown	Paul Lux, K1PL 860/635-1742	p/r pref.
Georgia			
10/31/98	Dalton	Bert, N4BZJ 702/259-5625 or Harold, N4BD 706/673-2291	w/i
10/03/98	Ellijay	Hugh or Dorothy 706/276-6660	w/i
10/04/98	Gainsville	Terry, K4FB 770/967-6364	
Idaho			
10/10/98	Boise	Lem, W7JMH 208/343-9153	w/i pref.
10/28/98	Grangeville	Larry AB7GY 208/983-2163	w/i pref.
Illinois			
Anytime!	Burr Ridge	Deni, W9DS 630/986-0061	p/r
10/10/98	Oak Forest	David, NF9N 708/448-0580	p/r pref.
Indiana			
10/25/98	Frankfurt	Donald, K9DFK 765/249-2020	w/i pref.
10/17/98	New Albany	Dick, K9RT 812/246-6377	w/i
10/04/98	Terre Haute	Fred, K9EBK 812/466-2122	p/r pref.
Iowa			
10/31/98	Council Bluffs	Lorraine, AAØBS 712/322-1454	p/r pref.
Kentucky			
10/13/98	Hopkinsville	Steve, Kt4MT 502/885-1652	
10/10/98	Irvine	Dwaine, W4AIA 606/723-4500	w/i
10/10/98	Lexington	Junior, KR4HT 606/255-2123	w/i
10/10/98	Radcliff	Rick, AD4SM 502/352-2361 or Harold, AI4HB 502/352-0825	
10/31/98	W. comm. College Off Hwy 6, E. side of Council Bluffs		
Maryland			
10/15/98	Towson	Bill, N3WD 410/HAM-TALK	p/r pref
Massachusetts			
10/17/98	Melrose	Scott, WB1F 617/665-7654	p/r pref.
Minnesota			
10/03/98	St. Paul	Ed, WØVC 612/636-0108	p/r pref.
Michigan			
10/10/98	Houghton	George, W8FWG, 906/337-2542	p/r pref.
Missouri			
10/17/98	St. Louis	Ron, KBØDIY 314/510-3223	p/r
New Jersey			
10/15/98	Bellmawr	Diane, N2LCQ 609/227-6281	w/i
10/10/98	Cranford	24-hr hotline 973/377-4790	w/i pref.
New York			
10/13/98	Bethpage	Bob, W2ILP 516/499-2214	w/i pref.
10/04/98	Yonkers	Emily, AC2V 914/237-5589	w/i ok
North Carolina			
10/17/98	Asheville	Bob, KS4FX 704/628-2681	w/i
10/10/98	Azalea Coast	Jack, WD4OIN 910/791-1566	
tba	Brevard	Harrison, KO4RV 704/877-4757 or 704/883-9096	
10/98	Rutherford	Bruce, KD4OJ 704/657-5464 or A.B. Brackett, KO4FJ 704/245-6534	w/i ok
Ohio			
10/03/98	Cincinnati	Herb, WA8PBW 513/891-7556	w/i pref
10/24/98	Van Wert	Robert, KA8IAF 419/795-5763	p/r pref.
Oregon			
Tuesdays	Bend	Bill, K7ZM 541/389-6258	p/r only
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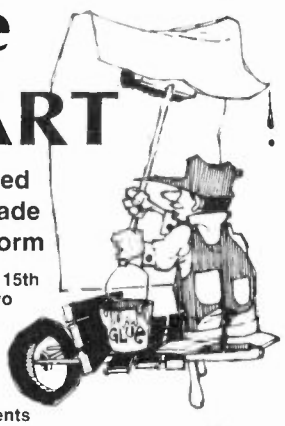

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ORACLE affiliates with NCI

ORACLE has announced its affiliation with the No-Code International. The alliance is on the basis of each organization having the same main objective, to end mandatory Morse code testing in Amateur Radio, and doing so worldwide.

Leaders of both organizations believe the closer relationship will lead to sharing of information for carrying out various lobbying projects. ORACLE has been active since 1995 in influencing International Telecommunications Union member administrations to adopt its code free position. It claims successes in widely exposing what it terms as the flawed arguments about questionable internationally mandate practices in Amateur Radio rulemaking.

ORACLE and No-Code International both say they have no problem with the actual use of Morse code by Hams, saying this is a free choice for individuals. Both groups believe Morse testing is a license requirement that is "objectionable."

ORACLE and No-Code International firmly believe that Morse testing is being used as a hazing ritual that Hams are put through to gain to access HF amateur bands. ORACLE and NCI say this hazing has to come to an end. Both groups support considerable modernization of Amateur Radio rules worldwide. — *Newsline*

Morse magazine gets new lease on life

The Morse magazine *Morsum Magnificat*, on the verge of ceasing publication, has a new editor and publisher. Zyg Nilski, G3OKD, will take over the reins of the magazine following the publication of the December 1998 issue. The magazine's banner proclaims "Still flying the flag for Morse."

The magazine's current Consultant Editor, Tony Smith, G4FAI, said that subscriptions will be transferred to the new publisher. Nilski, 55, lives in England and has been a ham since 1960. His almost lifelong interest in CW encompasses line telegraphy as well as the history of telegraphy and Morse technology.

Morsum Magnificat was first published in Dutch in 1983 by the late Rinus Hellemons, PAØBFN. An English edition was put out in 1985. The following year Smith, a writer specializing in Morse topics (and later chair of the European CW Association), joined the magazine as English language editor. When Hellemons died in 1987, the Dutch edition ceased publication, and the magazine moved to England. Since 1990, Smith and Editor Geoff Arnold, G3GSR, have jointly produced the magazine. — *ARRL Letter*

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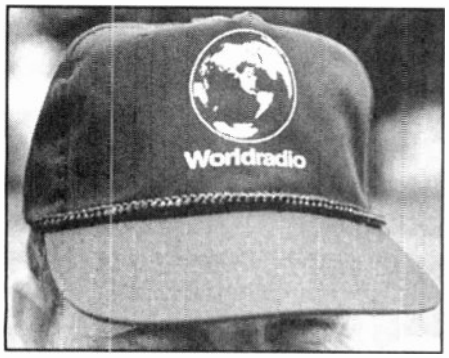

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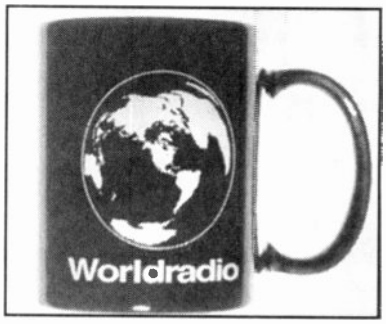

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Field Day. . . Fun?

RICK McCUSKER, KO6DJ

Did you have as much fun at Field Day as we did? Of course, planning makes the difference between a fun experience, and one that will soon be forgotten. But it's those really neat experiences that no one could possibly anticipate that make Field Day fun, and a truly unforgettable experience!

One of my duties at ***Worldradio*** is to look through the approximately 500 club newsletters that we receive, and pass along interesting tidbits to our readers. With that in mind, here are some of the interesting comments about Field Day, from around the country.

Sacramento Amateur Radio Club — "All in all, I think everyone had a good time. The only thing that marred this years outing was that an 8 year-old son of one of our members fell out of a tree and broke both of his arms."

Mid-Atlantic ARC, Villanova, PA. — "The prize for the most unappetizing task goes to Carter Craigie, N3AO, who washed feedlines and other gear with detergent and Lysol on Friday. Tent pole bags were also laundered with Lysol. Stuff was soaked in mouse ....., a disgusting, unsanitary situation if there ever was one. New storage bins were purchased to replace those which don't close tight. We're going to look into alternatives for storing the Field Day equipment so this won't happen again."

Nittany ARC, State College, PA — "Eric Brooks,N3NB, and Karl Hosterman, K3ARL, showed up with Field Day in-a-box, an army surplus communication station shelter complete with a 40 foot retractable mast, air conditioning and carpet. John Passaneau, WB8EIY, brought along an HF antenna of his own design, made of aluminum downspout. Rod Kreuter, WA3ENK, constructed the RS-12 uplink antenna out of some spare wood, brassrod, and plenty of duct tape. the downlink antenna was constructed of some salvaged computer cable."

South Bay ARC, Torrance, CA. — "Jack's (Hulsey), AC6ZO, chili was so hot, he has been appointed Field Day Chairman for Life." "Steve Ljutich, KE6KLP, provided top notch security on top of the parking structure. I am sure without his help, we would have been requested to leave sooner or later."

Mike & Key ARC, Renton, WA. — "It seems we were holding Field Day, but the NEW park rangers had no idea what was happening. It was like holding a wedding at someone else's house, but they didn't know we were coming. A few quick contacts by radio, and a few meetings with the rangers, and a lot of potential trouble was eliminated. I'm sure the rangers pictured a Ballard CB Biker Gang, especially after meeting Nils Hallstrom, WB7TJK, but were quickly relieved to find out the rest of us were far more restrained."

Victor Valley ARC, Victorville, CA. — "Some Ham friends came over Saturday afternoon to see a model Field Day Ham station in operation. What they saw was maybe typical: nothing was working right. Sort of like the phonetics used at W6NWG — "Nothing Working Good".

Sugar Creek Amateur Radio Society, Lancaster Count, SC. — "Working Field Day from under a tarp this year. The day before Field Day, a tree fell on their Emergency Communications trailer, putting it out of commission."

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