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Worldradio

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The crowd mingles among the exhibits at Dayton. *—photo K8CX*

1997 Dayton Hamvention report

Norm Brooks, K6FO

During the third weekend in May, 1997 in Dayton, Ohio, nearly 30,000 Amateur Radio operators handed the local Dayton businesses over 12 million dollars. No wonder we are all so welcome in Dayton each year! In addition, we gave over 300 exhibitors and over 1,000 flea market vendors additional millions for goodies that we shipped or carried home. The immense size of the Hamvention is unimaginable to anyone who has not been there. If you have never been to the Dayton Hamvention, you must do so at least once in your lifetime!

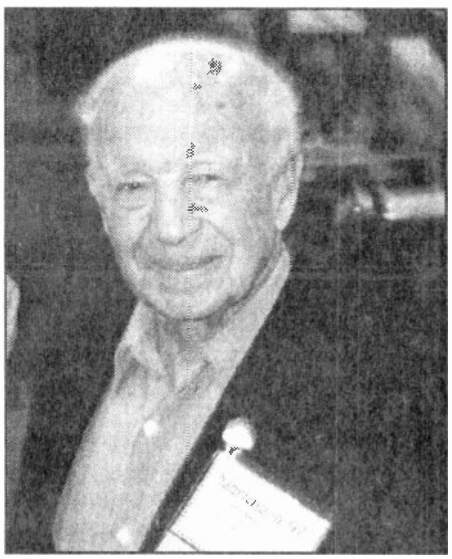
May 16, 17 and 18 sported good weather at Dayton. This is what the Hamvention Committee sought when they changed the annual date from April to May. However, true to Eastern U.S. weather patterns, there were rainstorms just before and after those dates. Your reporter and the rest of the ***Worldradio*** gang witnessed a massive lightning and thunderstorm in Chicago on the way home to Sacramento.

The year 2000!

The big announcement during the Hamvention was that the ARRL and the Dayton Hamvention Committee had agreed that the ARRL National Convention and the Dayton Hamvention for year 2000 will be combined. As you may know, next to the Hamvention, the next largest Amateur Radio gathering in the U.S. is usually, but not always, the ARRL National Convention. The thought of combining the two conventions is mind boggling. Needless to say, that is the one to attend, without fail!

Exhibitors are what make a convention successful. The more the better. Exhibitors don't come to conventions unless they can sell their products and make a few dollars above their expenses. The general feeling of the 1997 exhibitors is that they did well and will be back next year. All this is not lost on the Hamvention Committee, because they treat the exhibitors like royalty. The exhibitors like it and come back . . . (other convention committees please note).

From the standpoint of Joe Amateur, there was more to do at the Hamvention than just visit the exhibits. There were 51 sessions of forums to attend. These covered *all* areas of interest to the amateur operator. All were moderated by recognized experts in their field. To enumerate a few; DX, Contesting, QRP, Digital Radio, County Hunters, ARES, National Frequency Coordinators, NTIA, Direction Finding, Mobile Radio Installation, IOTA, Lightning Protection, AMSAT, ATV, SSTV, Weather Satellites, Using Ham Radio in the Classroom, Operating Techniques, PACTOR, Internet, Bicycle Mobile, Antenna Design, VHF/UHF/Microwave, SAREX, FCC and ARRL Forum. These were scheduled into five meeting rooms, and you had to



Leo Meyerson, WØGFQ, Dayton Hamvention's 1997 "Ham of the Year." *—photo N6WR*

(please turn to page 6)

World Radio History

NEWSFRONT

Worldradio

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

Hundt, Baker to leave FCC

FCC Chairman Reed Hundt has announced plans to leave the Commission later this year. In a letter to the White House, Hundt says that he has asked President Clinton to begin searching for a replacement to head up the agency.

During his three and a half years as head of the FCC, Chairman Hundt significantly changed the way that the FCC operated and how it interfaced with the public. He championed the idea of spectrum auctions, making the FCC one of the biggest money-makers for the U.S. Treasury. He also helped to shape the future of telecommunications worldwide.

So far, contenders for Reed Hundt's position include FCC Commissioner Susan Ness, Kathy Wallman who is President Clinton's Deputy Assistant for Economic Policy and FCC General Counsel William Kennard.

Kennard, a Democrat could be top contender. President Clinton nominated him and Republican Harold Furchtgott-Roth to fill the vacant seats on the Commission. Hundt says that he will stay on as FCC Chairman until his successor is named.

In addition to Hundt's departure, Beverly Baker, Chief of the FCC's Compliance and Information Bureau, has announced she will leave the FCC next month to pursue opportunities in the private sector.

Ms. Baker has been bureau chief at the CIB since August of 1994. During her tenure, much of the Commissions field service monitoring was dismantled and replaced by a yet to be completed remote monitoring system located in Maryland. *—via FCC, ARRL, and Newsline*

Correction

The Wires and Pliers article "CW using your HT!" on pages 56 and 57 of our May issue was missing an important line in the schematic. The capacitor C3 should connect to the conjunction of resistors R1 and R2.

Long-distance rescue successful

What do you do when you run across an emergency situation and you have no access to a two-meter repeater? You do what hams have done for years: you use any band you have at your disposal to summon help. That's just what Mervyn Dennis, VE3URN, of Toronto did recently, when he ran across a highway accident. He reported it on 20 Meters.

Dennis reported to the *ARRL Letter* that he was in QSO with his long-time friend Rupert Walford, 6Y5RW, of Montego Bay, Jamaica, when Walford was involved in a head-on collision and found himself trapped inside his vehicle on a lonely highway. Dennis reports he contacted emergency services and Walford's spouse in Jamaica on her telephone, while staying on frequency to offer comfort and assurance to the injured ham, whose radio amazingly was still operational.

Although Walford was extricated and hospitalized overnight, one passenger in the car was killed and three were hospitalized with serious injuries. Dennis says the accident occurred when another vehicle attempting to pass two other cars ended up in Walford's path and the two collided. He says that 6Y5RW is still recovering from his injuries but has been active on the air. *—via ARRL*

AO-27 Drifting

In Amateur Radio space science news, information that the 70 centimeter downlink signal from the AMASAT Oscar 27 ham satellite is slowly drifting lower in frequency. The Internet-based newsletter *Spacenews* says that the drift is due to the natural aging of the transmitter crystal. Satellite controllers can adjust the downlink frequency slightly to compensate for the drift, however the frequency change that has occurred to date is greater than the amount that can be adjusted from the ground. Users of this satellite are asked to take this into consideration when monitoring the AO-27 downlink. *—via AMSAT-NA BBS, others*

President signs "Volunteer Protection Act"

President Clinton has signed into law the "Volunteer Protection Act of 1997" known formerly as Senate bill 543. This act provides Federal protection from "frivolous, arbitrary, or capricious" lawsuits which might be brought against VE volunteers, Official Observers, and other volunteers. The law is now known as Public Law 105-19, and becomes effective on 16 September 1997.

Earlier this year, California Congresswoman Anna Eshoo had introduced House Resolution 1013, which was known as the Amateur Radio Volunteer Services Act of 1997. It too was designed to protect volunteers in the VE and Amateur Auxiliary/ OO groups. This House Resolution had acquired 29 co-sponsors in Congress.

With the passage of the Senate Bill into law, the House Resolution may be halted. The text of Public Law 105-19 is available on the www, at the following address <http://thomas.loc/gov/cgi-bin/query/z?c105:S543.ENR>.

According to the ARRL, PL 105-19 is far broader in scope than the Amateur Radio Volunteer Services Act of 1997. A quote from the new Public Law states: "The purpose of this Act is to promote the interests of social service program beneficiaries and taxpayers and to sustain

World Radio History

the availability of programs, nonprofit organizations, and governmental entities that depend on volunteer contributions by reforming the laws to provide certain protections from liability abuses related to volunteers serving nonprofit organizations and governmental agencies." *—via ARRL, FCC*

Congratulations to:

Carolyn Prechtl, N5CIE,

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

Texas hams praised

Hams across central Texas have been praised for their volunteer efforts following a series of tornadoes that hit the state.

Nearly a hundred radio amateurs from Travis and Williamson counties faced the storms on 27 May, after a series of devastating tornadoes swept through central Texas. More than two dozen people were killed, many others injured, and extensive property damage resulted. Hams from Waco to Austin were involved as the storms tore through the heart of the Lone Star State.

After the tornadoes struck, the Red Cross found that the limited range of its radios made it necessary for hams to shadow some of their officials. A ham stationed at the hospital was able to relay needed information back to Austin. State and local officials have been quick to recognize the efforts of the many ham radio volunteers. *—via ARRL*

Contest "Hall of Fame" inductees

Our congratulations to John H. Dorr, K1AR; Johan Devoldere, ON4UN; Carl Cook, AI6V; and Gordon Marshall, W6RR. They, along with silent key Arturo Bozzo, LU8DQ, were inducted into the CQ Contest Hall of Fame by Bob Cox, K3EST. The ceremony took place at the CQ Contest dinner, held in conjunction with the 1997 Dayton Hamvention. Inductees were chosen for outstanding contributions to Amateur Radio contesting. ON4UN, AI6V, and K1AR were on hand and happily acccepted their awards. *—via CQ Magazine*

New 47 GHz band

The FCC has released a portion of the 47 GHz band for public and commercial use. The newly released band lies from 47.2 to 48.2 GHz, and is currently allocated for fixed, fixed-satellite and mobile uses. The action does not involve the Amateur Radio allocation at 47.0 to 47.2 GHz. The Report and Order was adopted 02 May. *—via FCC, ARRL*

MIR SAFEX back on

Reports indicate that the UHF FM voice repeater on the Russian MIR space station is now working. The uplink frequency is 435.750 MHz using a CTCSS tone of 141.3 Hertz. The transmitter downlink is 437.950 MHz. *—via AMSAT-NA BBS*

SAC Radio Club

A new Strategic Air Command Memorial Amateur Radio Club is forming in the Bellevue, Nebraska area. Located near Offutt Air Force Base, the new organization is a collaboration of active duty personnel, veterans, members of the local Amateur Radio community and members of SAC-related historical organizations. Its purpose is to preserve U.S. Air Force and SAC communications and Amateur Radio history. This includes the preservation and use of historic call signs such as KØAIR and KØGRL. The new group also plans on working with the SAC Museum to put together communications history exhibits.

Problems for the "Voice of the Andes"

The Italian shortwave listener's newsletter *Radioincontro* reports that Ecuador's famed short-wave broadcasting station HCJB, long known as the "Voice of the Andes," faces the possible closure of its present transmitter site near Quito because of a planned runway extension at Quito Airport.

HCJB is well known in the Amateur Radio community. Every Wednesday at 0830 UTC on 5.865 MHz the station airs a program called "Ham Radio Today." A parallel transmission goes out on 21.455 MHz using only 500 watts on upper sideband. This program is later repeated at 0930 and 1930 UTC on 9.645 MHz and 21.455 MHz upper sideband. *—via* Radioincontro

Atlantic Division Awards

Three hams have been honored in the ARRL's Atlantic Division. Joseph Nunemaker, KD3VR, has received the Atlantic Division *Amateur of the Year Award*; Gerald Gavin, NU3D, was given the divisions' *Grand Ol' Ham Award*; and Ron Raposo, N2JAW, was handed the *Atlantic Division Technical Achievement Award*. All three were honored at the 63rd annual Atlantic Division Convention. *—via ARRL*

Worldradio

August 1997

features

departments

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

World Radio History

Worldradio

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Publisher's Microphone

Searchlights sweep the sky. Paparazzi check their cameras. Autograph seekers have their books and pens at the ready. Then the stretch limos deliver the latest ***Worldradio*** SuperBoosters (Lifetime Subscribers):

- **Erick Walters, WB1DHZ, Quaker Hill, CT**
- **Connie Hamilton, WD8MIO, Marietta, OH**
- **James Floyd, Jr., KB9KID, Indianapolis, IN**
- **Lowell Corbin, W8IQB, Lansing, MI**
- **Ron Barthelt, N9QQK, Chicago, IL**
- **James Jobst, WD6EXH, Yorba Linda, CA**
- **David Fifield, AD6AY, San Jose, CA**

•

A few days ago an amateur was complaining that (in his opinion) ***QST*** "carried too much about DXers and their garbage." Tragic. While we may all not have the time, money or inclination to participate in all of the avenues of Amateur Radio we should give others the same respect we'd wish for ourselves. We should feel that we have more in common than we have divisions. First, we are all Amateur Radio operators. Then, we have (thankfully) different interests. There is no reason to disparage another facet just because one is not involved in it.

•

I took a bit of flak from letter writers when I made a statement regarding the ARRL, "The vast overwhelming majority of non members are people who will never again participate in Amateur Radio."

To clarify the statement, my remarks came about because of the oft-heard statement from some which goes something like this, "Less than a third of the licensed amateurs are ARRL members."

We should modify that to reflect what percentage of the ACTIVE licensees are ARRL members.

At the present time there are about 800,000 licensees in the U.S. However, most of that 800,000 don't even have a station anymore. How many of that 800,000 will NEVER again be active? Obviously, the great majority. They don't give Amateur Radio the slightest thought.

My guess is that the number who actually truly participate in Amateur Radio activities is around 200,000.

•

One could ponder why all those hundreds of thousands of people went to the effort to get a license and then ran away. Is it our (collective) fault for not inviting them to club meetings until they finally showed up? Is it the reception they received at meetings? There is no end of fascinating activities to be involved in but hundreds of thousands couldn't find even one.

Maybe it's not all our fault either. It may all be just part of the "reverse evolution" taking place now. Ten years ago the USA was 18th in the world in per-capita newspaper readership, now it is 29th. Ten years ago the USA was the world leader in the number of different book titles published, now we are in fifth place.

Maybe it just takes too much thinking to be a ham. One does have to figure out which direction to aim the antenna. You have to memorize that JA means Japan and F is France.

Every 10 years one must grope with a government form to renew your license. There is a nice man who for $5 will mail your form to the FCC, after you mail it to him. (I'm still trying to figure that one out.)

•

We do often hear that we should be getting the young people into Amateur Radio. (When I was young, one of the reasons given was that it could lead to employment in electronics.) There may be another group that would be even more appreciative of the licensing opportunity than today's young people, and that is those who are sightless or confined to home.

Practically every city has facilities for the blind (usually sponsored by a service club) at which they gather for activities. A licensing class could be a new activity. Amateurs could individually tutor those who are home-bound. It would be hard to imagine just what Amateur Radio could mean to someone whose physical mobility was restricted. For the deaf, Packet, AMTOR, etc., could be a great gift. There are deaf people who have passed the CW test by feeling the vibrations on a loudspeaker.

So, if we are looking for something good to do, there is an entire community of people who would truly relish Amateur Radio, just waiting to be told about it. —*Armond, N6WR*

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World Radio History

Kathleen Szakonyi, N3SAD, from S&S Engineering welcomes visitors to the booth.

Dayton

(continued from page 1)

make conscious decisions as to which to attend.

There was a sixth meeting room, in which the Dayton Power and Light Company put on an electrical safety demonstration. This was repeated four times during the three days, so you couldn't miss it. Your reporter made a video of the 45-minute demonstration which I am showing to the local radio clubs.

Other forums were moved to Meadowdale High School. To get there, a bus was provided. The Net forums, such as Geratol, YLRL, 10-10, Firebirds, and two MARS groups were relegated there. Also, the "Amateur Radio and the Law" forum and many "alternate activities" for spouses, etc. were there.

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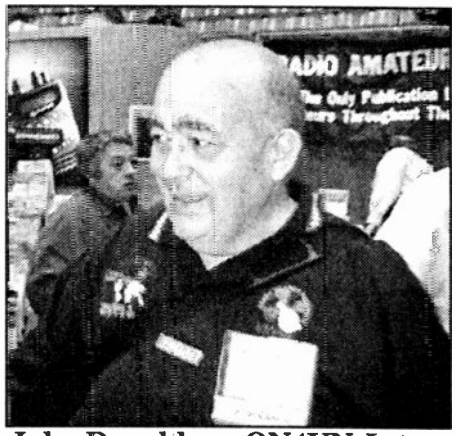
Convention-wise, when there is a split-site situation, attendance at the smaller venue is less than that at the main arena. That's the way this came out. The Committee needs to figure out a way to get more meeting rooms back at the main arena. How about a couple of big tents?

Of course prizes are a big attraction. They gave away tens of thousands of dollars worth which were donated by the vendors. There were ten major prizes for which you did not need to be present in order to win. If you went home early, they would ship your prize to you. The grand prize was a complete Yaesu dream station. Other prizes were awarded at the banquet, at some of the forums, and given away hourly during the three days. There are video monitors all over the facilities showing the hourly winners. Except for the ten big prizes mentioned above, all prize numbers were called until someone won them.

Over 30,000 visitors severely tax hotel/motel/campersite facilities. If you do not have reservations, you may find yourself "commuting" to the Hamvention from 30 to 40 miles away. The Housing Committee at the Hamvention will help you, but they can't create rooms for this biggest event of the year. Get your room and airline reservations early, for next year. **WR**



John Devoldere, ON4UN, Internationally respected DXer and author. ***—photos N6WR***

Dayton Hamvention antenna topics

Peter Onnigian, W6QEU

This year during the largest Amateur Radio convention in the United States, the Dayton Hamvention, there were six talks relating directly to antennas. I'll review some of them here for those who were unable to attend the festivities.

While there were no new inventions or brand new ideas, there were plenty of computer refinements of existing antenna types. Here are some of the antenna topics which were discussed at Dayton.

Lew McCoy, W1ICP, gave his ideas about antenna-to-equipment matching devices, along with his thoughts about the gain differences, if any, between Quads and Yagis.

J-Pole antenna theory and operation

Bill Parker, W8DMR, who is an electrical engineer with Rockwell International, explained the myths about the J-pole being an end-fed Zepp. He said that the big problem with lackluster performances from J-pole antennas was due to the poor current and phase balance on the Zepp-like feeder. It must be balanced—that is, equal amplitude current and 180-degree phase difference. When this condition exists and the radiator is resonant, the feeder does not radiate and the half-wave length produces high efficiency radiation, equal to the theoretical.

By using two five-eighths wavelengths for the antenna with a quarter wave stub, an additional 2.7 dB gain may be obtained.

Bill is a dynamic speaker and the question/answer period was very informative and interesting.

The latest edition of *The ARRL Antenna Handbook*

Dean Straw, N6BV, discussed details of various topics outlined in the new *ARRL Antenna Handbook*. Like the previous edition, the new 18th edition comes with computer software programs—some old, some new. One of the computer programs explores the surrounding terrain of an antenna installation. The electrical soil conditions, the trees, grass,

World Radio History

buildings, metal towers and other factors which may affect low angle propagation are all considered.

The book, however, still carries a lot of old and unecessary baggage. For example, I found pages devoted to the now-defunct RCA fish bone antenna, the Multee dual band vertical, the high frequency (not VHF) discone, and other useless antennas.

Then there is the continuing nonsense of using tenths in antenna length formulas, such as 1046.8 divided by the frequency in MHz to determine the wire length of a 2M quad. Dropping the "0.8" makes the loop size 2-one hundredths of an inch shorter. Our "Kurt N. Sterba" has been harping on this point for more than five years, but Newington hasn't taken notice.

QST has published several well-researched articles on the recently discovered use of elevated radials for vertically polarized, low band antennas. However, this book has failed to take serious note of these improvements, devoting only a couple of paragraphs to them. This new information is vital to hams who might be thinking about burying 120, quarter-wave ground radials!

This edition also has several new practical graphs, which help the reader better understand antennas. Several chapters have been added, and some of the older basic theory has been reworded for better understanding. However, that chapter on conjugate matching between final amplifiers and the antenna feed line is *still* incorrect.

I came away with the feeling that, despite its shortcomings, the latest edition of the *ARRL Antenna Handbook,* along with its computer floppy, is still a good buy.

Feedlines and power losses

Tom Whitted, WA8WZG, who is a school teacher, gave a very interesting forum on the very practical aspects of feedlines. Besides the usual dB attenuation and power capabilities of various lines, he presented excellent information about the proper installation of connectors, from the common (and poor) UHF and type N, to 7/8-inch EIA flange on solid copper and aluminum outer coax lines. Two quotes from his Hamvention talk are worth repeating here, as sometimes we forget to think about these functions when considering feedlines.

1) RF travels on the surface of a conductor. A section of coax, then, has three surfaces to be reckoned with: the outside surface of the center conductor, the inside surface of the shield, and the outside surface of the shield. 2) The outer surface of the shield should have nothing to do with the flow of the desired signal. It is, in fact, the outside part of the shield that matters for the shielding function. The shield keeps the desired signal inside where it belongs, and it keeps other forms of RF (and RFI) from getting inside and mixing with the flow of the desired signal. Copies of his paper are available by writing to WA8WZG.

A new flexible, low-loss transmission line

Marty Van Der Burgt, KA9MSR, is an employee of Belden Wire and Cable Company and he knows his coaxial cables. He went through the basics of coaxial cables, types of internal insulation, jackets, and internal conductors. For all-around amateur use, he recommended the Belden type 9913-F cable.

The "dash F" uses a foam dielectric and has a stranded inner conductor. These two changes make the 9913-F better than the older 9913. Its outer cover is polyethylene and may be safely buried. The inner stranding makes it a very flexible line, unlike the old 9914 with its single #13 copper wire, which was quite stiff.

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Rules & Regs

Jack Kelleher
W4ZC

E-mail:
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League to comment on theft-deterrent system maker's petition

The ARRL will file comments in response to an FCC Petition for Rulemaking from Checkpoint Systems Inc. — a manufacturer of electronic article surveillance (EAS) systems that use frequencies in the 1.7 to 10-MHz range. EAS systems are used to deter theft in retail stores and other locations. Checkpoint has asked the FCC to change its Part 15 rules to expand the frequency range and power level of EAS systems. The company wants the Commission to permit EAS operations in the 1.705 to 30-MHz band at a maximum radiated emission level of 1000 μV per meter (measured at a distance of 30 meters) and a maximum conducted emission level of 3000 μV. Current rules permit a maximum radiated emission level of 30 μV per meter (measured at a distance of 30 meters) between 1.705 and 30 MHz, or 100 μV per meter between 1.705 and 10 MHz. The current conducted emission limit for such devices operating between 1.705 and 10 MHz is 250 μV.

Checkpoint says its EAS system can detect tags concealed within or attached to protected articles by using an RF sweep over the frequency range of operation. Typically, systems are set up so that customers can only exit via an EAS-equipped gate. Checkpoint's EAS equipment currently operates within the 1.705 to 10 MHz band and is regulated as an unlicensed intentional radiator under Subpart C of Part 15. Under Part 15 rules, such devices may operate without restrictions on bandwidth, duty cycle, modulation technique or application, but must comply with specified radiation and emission limits and protect licensed services from harmful interference. Checkpoint says it needs the higher power levels to overcome "increasing levels of ambient RF noise in commercial establishments." The expanded frequency range, the company says, will allow for greater flexibility in deploying EAS systems and reduce the potential for false alarms.

The company already holds an experimental authorization to operate EAS equipment within the 7.4 to 9 MHz and 8.2 to 10-MHz bands at up to 1000 μV per meter and says it has received no complaints of interference.

Checkpoint's Petition for Rulemaking was received by the FCC on April 28. —*via ARRL Letter*

FCC Issues new Form 610—old versions still valid

The FCC has just released a new Form 610, dated March 1997, which among other minor changes, now includes a space for your e-mail address. The new form is available via the FCC's Internet site (http://www.fcc.gov) and via the FCC's fax-on- demand service (202/418-0177); to obtain Form 610, the form number to request is "000610;" Form 610A is "006101;" Form 610B is "006102;" and Form 610V is "006108." Form 159, of interest to some vanity filers, is "000159."

The form is much the same as the previous Form 610, dated March 1995, except that item 3A asking for the applicant's "Internet Ad-

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

Radio District	Group A Am Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
Ø	ABØFQ	KIØIQ		KBØBDH
1	AA1SG	KE1HX	N1ZIX	KB1CDW
2	AB2DU	KG2LL		KC2BVQ
3	AA3PX	KE3ZV	N3ZLQ	KB3BTZ
4	AF4DO	KU4HL		KF4SDW
5	AC5MU	KM5JK		KD5AXD
6	AC6BO	KQ6PK		KF6LMW
7	AB7VO	KK7HY		KC7WWI
8	AB8AK	KI8CR		KC8HQI
9	AA9UM	KG9KR		KB9QPO
N. Mariana Is.	NHØA	AHØAY		KHØABH
Guam	AH2DD	KH2RU		WH2ANT
Hawaii	AH7V	AH6PB	KH7EF	WH6DEA
Amer. Samoa	AH8O	AH8AH	KH8DH	WH8ABF
Alaska	ALØE	AL7QT	KLØIE	WL7CUI
Virgin Is.	*	KP2CJ	NP2JR	WP2AII
Puerto Rico	NP3G	KP3AY	NP3OB	WP4NND

*All of the Group A call signs for Virgin Islands have been assigned. Any request for a Group A call sign will now be assigned a Group B format.

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dress" is included on the same line as the street address. The environmental impact question, formerly item 6, has instead become a statement in the applicant certification section where the applicant certifies that "the construction of the station would not be an action which is likely to have a significant environmental effect (see the Commission's Rules 47 CFR Sections 1.1301-1.1319 and 97.13a)." The former item 7 has become item 6 on the new Form 610.

According to staff members at the Gettysburg FCC office, the FCC will continue to accept any of the three Forms 610 (dated November 1993, March 1995 and March 1997) until further notice.—*via ARRL Letter*

Revised Vanity call sign electronic application available

On 19 May 1997, a revised version of the electronic Amateur Station Vanity Call Sign Request form (FCC Form 610-V) was made available on the Internet at http://www.fcc.gov/wtb/amradsrv.html. Under "Amateur Station Vanity Call Sign System" choose "Interactive Vanity Call Sign Application." This version allows a user to file multiple applications using one FCC Form 159 (Remittance Advice), thus permitting several applicants to file vanity applications at the same time and combine their fee payments. The fee will calculate and preprint on the FCC Form 159, depending on the number of applications submitted. Detailed instructions are available by clicking on the item number on the Internet form. Previously, applicants had to complete a separate FCC Form 159 for each application submitted electronically.

Electronic payment is not yet available, and applicants must mail a completed FCC Form 159 with payment to FCC, Box 358994, Pittsburgh, PA 15251-5994, immediately after submitting any electronic application(s).

For technical assistance, contact the FCC Technical Support Group, 202/414-1250. For general questions regarding the application or fee, call the Wireless Telecommunications Bureau Consumer Assistance staff, 800/322-1117. —*FCC, ARRL Letter*

ITU Concludes pre-WRC-97 talks

The ITU Conference Preparatory Meeting (CPM) for WRC 97 has concluded deliberations in Geneva, Switzerland. The work of CPM has resulted in the preparation of a 250+ page book of combined technical output from the various ITU study groups as well as the concerns of the member states.

Issues of special interest to radio amateurs that were taken up in preparation for WRC 97 included the possibility of additional frequency allocations to the Mobile Satellite Service operating below 1 GHz— familiar to hams as "the little LEO issue." No specific frequencies have been identified in the CPM report for reallocation. Although the report does address a number of sharing possibilities, it makes no mention of sharing with the Amateur Service.

In addition, a new concept of "broad allocations" was introduced. If adopted, this concept would result in individual nations being able to identify and allocate frequencies from a broad pool of service allocations. This concept, being quite new and unstudied, only resulted in a call for future studies by the ITU. However, it will he watched closely by radio amateurs as it might have the potential of representing a threat to our bands. It's likely that any such studies will be prolonged ouer a multi-year period. (Emphasis added —W4ZC) —ARRL Letter **WR**

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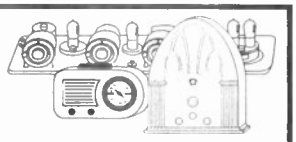

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Pick your own special event call sign

Norm Brooks, K6FO

Let's say you are going to set up a special event Amateur Radio station for your regional Pickle Festival. You will soon be able to select, say, W8P as your special event call sign and use it during that festival. You will pick from the block of 750 one-by-one call signs set aside for this purpose. The only requirement is that you send your own call sign once per hour during such operation. This will all happen sooner than you think. It will go into effect as soon as the FCC can find a volunteer entity to serve as the Special Event call sign data base coordinator. (Are you listening ARRL? We need you to make this happen.)

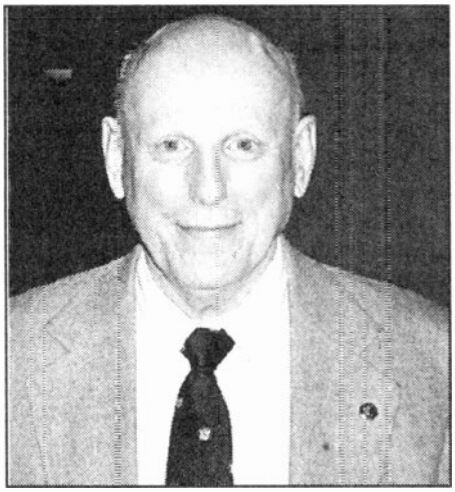
As in past years, the Dayton Hamvention Committee invited John B. Johnson, W3BE, and Bill Cross, AA3DI, of the FCC to attend the 1997 Dayton Hamvention to present an FCC Forum. They represent the Public Safety and Private Wireless Division of the Wireless Telecommunications Bureau of the FCC. To put it more simply, these are the fellows who write and administer the FCC Rules within which we operate.

FCC web site

It's no surprise that the FCC would brag about its Internet web site. If you haven't used it, go to: <http://www.fcc.gov/wtb/amaradsrv.html>

Johnson said that our e-mail to the FCC made it quite clear as to what we wanted to see on the web page. To answer the question, "How do I become an Amateur Radio operator?," they have a section on "How to obtain a license." They tell about the Volunteer Examination Coordinators and the fee charged. They tell how to renew licenses, and how to change your name or address of record. There are the announcements of the procedures of the sequential call sign system and the Vanity call sign system. There is information on obtaining a copy of the FCC rules from the Internet, or from the Government Printing Office.

There is even information on the arrangements for international communications, with lists of countries with whom the United States has made arrangements for third-party communications. There is also a list of countries with which



John B. Johnson, W3BE

the US has made reciprocal operating arrangements.

The database

Some of us (your reporter included) have found that the latest call books misspell our names, or the database has some other keying error. If you find the error is in the FCC database, bring it to the FCC's attention by writing to Consumer Assistance at 1270 Fairfield Road, Gettysburg, VA 17325. Snail mail only, no telephone calls or e-mail please.

Spread spectrum

The web page lists data on Proposed Rule Making Dockets. Currently, WT Docket No. 95-57 covers Sundry Items, and WT Docket 97-12 has to do with "Spread Spectrum."

Johnson pointed out that the Amateur Radio service was the first service to get authorization to use spread spectrum technology. This was back in 1985. Section 97.311 of our rules authorizes both frequency hopping and direct sequence transmissions, using up to 100 watts power. There is one big no-no however, spread spectrum transmissions must not be used for the purpose of obscuring the meaning of any communications.

The neighbors

Johnson said "One of the more unpleasant things we have to do from time to time is listen to complaints from your neighbors. To you, the term "amateur" has a totally different meaning than it does to your neighbors. To them the term probably has the literal meaning of "non-professional." The dictionary says that it "implies a relative lack of skill," a "beginner" and a "superficial dabbler."

"After listening to their complaint, we tell them that the FCC rules impose very tight technical standards on your stations with regard to the frequency bands on which they transmit and with regard to unwanted emissions.

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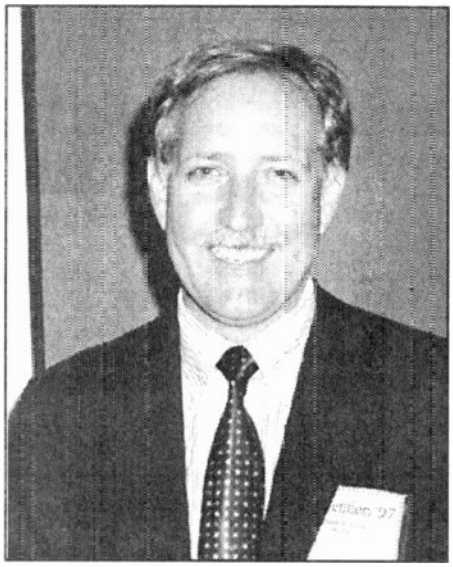

Bill Cross, AA3DI

where. They are in dwellings, in our cars, in airplanes, on ships and spacecraft. They are even carried on our persons, with some antennas even fastened to our caps!

We transmit from residential and other areas where our families, friends and neighbors may be in close proximity to the radiation source. In 1990, the FCC and the Environmental Protection Agency made measurements at several Amateur Radio stations. They found that there could be some situations where excessive exposure to RF radiation could occur. Even though excessive exposure may be relatively uncommon, it is possible. Therefore the guidelines must also apply to our stations.

Experts in the field have been busy developing and disseminating RF safety information in the form of tables, charts and computed analytical tools. The best we may be able to do at present is to estimate the RF density around our station(s) based upon measurements made at other stations or with computer modeling.

Effective in July, questions will be added to the question pool about the things operators need to know about RF safety at Amateur Radio stations. The FCC has adopted the suggestion that all Amateur Radio operators certify that they have read and that they understand the rules regarding RF safety and the OET Bulletin Number 65 at the time they file a license application. WR

your stations and operate them anywhere the FCC regulates communications. Moreover, the FCC does not even include your transmitters under its type certification program."

RF safety

Last summer, the FCC adopted new guidelines and methods for evaluating the environmental effects of RF radiation from FCC-regulated transmitters. There are numerous variables to be considered in determining whether an amateur station complies with guidelines for environmental RF exposure. We have some 720,000 stations licensed to transmit from any place that FCC regulates the service. Our stations do not require pre-approval. We don't need permission to move our stations or to add additional transmitters at the same or other locations. Our stations are anywhere and every-

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From 'no code' to knowing code!

Dave Kelley, AI7R

I'm not going to start out by telling you that learning the code is fun. I'm not going to tell you there is an easy way to learn it. But, like just about everything, there is a right way and a wrong way to do something. I hope to give you some ideas that should help you learn the code and get all the way to the top. Like many, you may learn to love the CW (continuous wave) mode. Don't believe it can happen? Listen to the CW bands on any day and compare the number of QSOs going on compared with the phone band. You probably will find more people chirping than talking.

Here are some points to think about. People all learn differently, so use what you think will work for you, and discard or modify these ideas for your own use.

• Don't learn CW at a slow rate, even from the start. If your goal is to get to 20, or even 13 words per minute, set your learning speed accordingly. For example, if your goal is 20 then try to copy with a character speed of 22 wpm with a long space between characters. As you start to recognize the letters more quickly you can simply close the spacing between the letters until you are at full speed. This allows you to get used to the sound of the characters at this speed.

Hearing code at a slower speed later will be easy to recognize, as opposed to the other way around.

Learning at 22 wpm is just as easy as learning it at 5 wpm. The 'plateaus' that you hear about occur when people learn 5 words per minute and then try to achieve 13. A block at 10 wpm is common. They are learning the code all over again because the sounds of the letters at the higher speed is very different. Guess what happens when that person now tries to get to 20 wpm? You guessed it, they find another 'plateau' at 17-18 wpm because, once again, the letters sound different at the higher speed. Why not learn it at the higher speed from the start? Then you only have to learn it once.

•Listen to the SOUND of the characters. Learning code at a higher speed helps you avoid one of the biggest problems we all have when starting out in code. We tend to "count" dits and dahs or visualize the letter on paper with the code next to it (a= • –). If you learn code by doing any counting, memorizing code charts, or even thinking about the pattern of the sound you will find those 'plateaus' again. Our

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minds can do these conversions only so fast and the more obstacles we put between hearing the letter and writing it down, the slower our response time.

By learning the sounds of the character we can learn to copy almost automatically. If I were to recite letters to you in English you would be able to write them down without thinking about how to form the letter or even what it looks like. You just know that when I say "Double-U" you would write W on the page. Code should be learned the same way. No conscious conversion processes in between.

•NEVER use crutches! In keeping with the above paragraph you should stay away from crutches. One that comes to mind that is the worst way to learn code is the Sound=Catchy Phrase=Letter technique. This is were you learn little rhymes that go with each letter. The letter C is "Catch-it Catch-it," like the sound of the C. THIS IS A VERY BAD way to learn the code. Can you imagine using this to copy at 20 wpm? You'd hear the sound, have to think of the phrase, then think of what letter it was from that phrase and then write it down. Oops, you just missed 5 letters while you were doing all that mental converting. Chances are that you would never make it to 20 wpm using any crutch. Frankly, I think learning it simply by the sound of the letter would be easier than learning little rhymes.

•Learn to drop the pencil from time to time. Some of us can't write at 20 wpm. I can, but my hand gets mighty tired in a long QSO. So, drop that pencil and close your eyes. Listen to the letters and let them form behind your eyelids instead. You'll start seeing whole words there. Then you'll get the hang of hearing complete sentences without forgetting letters as fast as you hear them. Think about this. The only conversion we have really talked about (that is okay) is from hearing the sound to writing it down. If we take away the part about forming the letter on paper, the brain has even more time to just listen and comprehend the code. . . leaving it time to remember the order of the letters. People who have learned this can listen to the CW band as easily as they can the phone band. As you tune around you'll hear what people are saying very clearly.

Without the pencil pushing to get in the way, your code speed will jump several notches, too. You might find yourself listening to a couple guys or gals talking at 30-35 wpm and copying without much effort. You sure couldn't write it that fast. So, drop that pencil and just listen for a while.

•Taking the test. Having been a VE for many years I have seen just about everything in our code sessions. Stress is always present (no matter how many jokes I tell first) and people usually react negatively to stress. You should have a skill level of 2-5 wpm over the actual test you are taking. Your comfort level will be better. If you have heart problems or get sick under extreme stress, let the VEs know about it so they can work with you.

The code tests are nothing more than a sample of QSOs like you might hear on the air. You will hear call signs and information about things like RST, QTH, name, rig, weather and other standard "chat stuff." Knowing how we talk on the air can be a big advantage. So if you have a way to receive HF, or even better, if you can get on the air — by all means, do it.

When taking the test you might want to decide if you want to try for 100% copy. This might be good for some people. Someday soon that may be your only option. If you copy on paper and know you are doing well from the computer, tapes or on the air, then this would be useful. If you have learned with the 'pencil down' method you might want to just take notes. When you hear key words write them down . . . he has to QRT for lunch, his antenna is a dipole, or he has a schedule with his mother in Botswana. You might write lunch, dipole, mother, Botswana. You can then answer the questions on the multi-choice sheet rather easily. This is not cheating in any sense of the word either. The idea of knowing code at a particular speed means you can comprehend what the information is . . . and we are doing that here.

Well, there you have it. I have known many people over the years who have used these key ideas to gain a mastery over the Morse code. You can meet many of them . . . the next time you are on the air on the CW bands. Enjoy! WR

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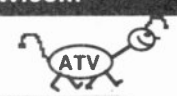

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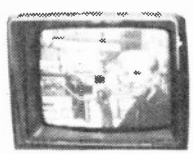

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HAMS: Call, Write or Email for our 10 page ATV Catalogue for more info - We have it all! Antennas, Amplifiers, Transmitters, Downconverters, Repeater modules, and more. We also have wired and tested boards for the builder, R/C, Rockets and Balloon ATVers.

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Normal or Farnsworth

Select normal or Farnsworth spacing.

Farnsworth makes it easier to recognize entire characters. It stops the tendency to count individual dots and dashes that slows learning.

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Use fixed length or more realistic random length groups. Up to 8 characters per group.

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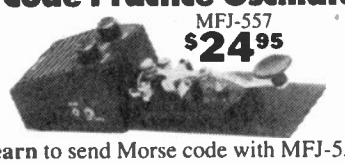

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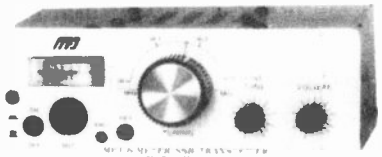

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$259.95 with mic

Work exciting 6 Meter DX from all over the world on ham radio's *"magic band"*!

It's an adventure every time you turn on your MFJ-9406 six meter SSB transceiver.

Distant stations come rolling in loud and clear with crystal clear armchair copy. You'll have fun exploring exotic 50 MHz band openings -- Tropo, Sporadic E, F2, TE, Aurora, Meteor Scatter, and more.

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Excellent selectivity: Sharp *HF proven* SSB crystal ladder filter reduces QRM and passband noise.

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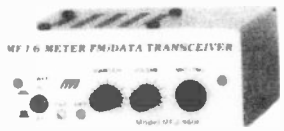
MFJ 6 Meter *FM Communicator*™ Transceiver



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6 Meter MFJ Antenna Tuners

Compact 6 Meter Antenna Tuners

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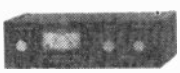
MFJ-903, $49.95. Like MFJ-906, no meter, bypass switch. 5x2½ x3"



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MFJ-945E, $99.95. Compact *mobile* tuner covers 6 Meters thru 160 Meters. Lighted Cross-Needle SWR/Wattmeter. Antenna bypass switch. 300 Watts PEP SSB. 8x2x6". Mobile mount, **MFJ-20, $4.95.**

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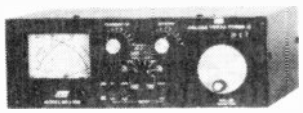

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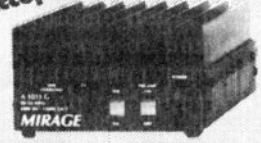

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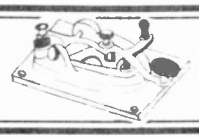

Irv Baum, KB6LA

Irv Baum, KB6LA, was an important part of the California Blood Bank Society's Amateur Radio Net from at least 1984, until he passed away after a brief illness in February, 1997. In an activity often characterized by "volunteer burnout," Irv was there to support the San Bernardino blood bank year after year.

A native of Pittsburgh, Pennsylvania, he grew up in Queens, New York, and enlisted in the Army Air Corps in 1942. He served as a navigator, flying B 17s in bombing missions with the 8th and 15th Air Forces from England and Italy during WWII. During a raid out of Foggia, Italy, his aircraft was shot down over Wiener Neustadt, in Austria, and Irv spent a year as a prisoner of war. He and his comrades were liberated by the forces of Gen. George Patton in May of 1945.

After leaving the service, Irv became a surveyor, in part because of his love of the outdoors. He married Ellen Rose in 1946, and they moved to a wooded area in Westchester County, New York, where he continued his surveying career.

Recalled to active duty during the Korean War, the family moved to Massachusetts, and then eventually to the Azores, where the family continued to live after Irv left the Air Force. In 1955, the Baums moved to Redlands, California, where Irv eventually became a licensed land surveyor. In 1993, Irv retired as supervising land surveyor for the state of California.

As KB6LA, Irv Baum was active in emergency services that spanned the spectrum from the Blood Bank Society to special events that required the disciplined skills of Amateur Radio.

He leaves Ellen, his wife of fifty years, of Redlands, California, four children and five grandchildren. Memorial contributions may be made to the Irving W. Baum Sanctuary, c/o BARC (Benevolent Animal Rescue Committee), P.O. Box 744, Mentone, CA 92359.

The Amateur Radio operators throughout the state who continue to support the blood banks will always remember Irv as a friendly, dependable man, and a fine operator. *—contributed by Jim Rich, N6SZQ, trustee, Sacramento Blood Center's Amateur Radio station.*

W.R. (Willie) Xander, KAØMEZ

Willie Xander, KAØMEZ, has passed away in Camdenton, Missouri. Born in Springfield, Illinois in 1916, he married the former Margaret Mac Dermot of St. Louis in 1942. He was a veteran of World War II, having served in the Army Air Corps.

Mr. Xander was first licensed in Texas in the 1970s, and received his "Ø" call sign after relocating to Missouri. He was proud to be numbered in the group of amateurs who founded the Lake Ozark Amateur Radio Club in the 1980s. One of his most memorable moments as a ham came when he made contact with Owen Garriott, W5LFL, in the Space Shuttle *Columbia,* in 1983.

He is survived by his wife of 55 years, Margaret, their son Dennis, three grandchildren, and his sister Pat Faria, who resides in California. *—contributed by the Xander family*

When sending a silent key notice to us, please include your name, call sign and a telephone number where you can be reached. Please include a death notice from a local newspaper or a note from the family, along with your comments about the SK *—KB6HP*

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- 600 watts.

Cat.#	Band	Cat.#	Band
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9140	40 meters	9112	12 meters
9130	30 meters	9110	10 meters
9120	20 meters	9106	6 meters
9117	17 meters		

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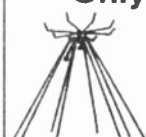

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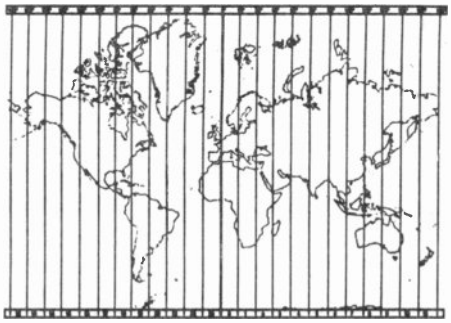

Contact All Time Zones

To help commemorate 25 years of ***Worldradio,*** we announce a new award to be 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.

Those receiving the CATZ award will have their name and call sign reported in the ***Worldradio*** DX column. **WR**

Going to Thailand?

HSØZCM is looking for ARRL-affiliated VEs who are planning on visiting Thailand.

Currently, there are two resident Extra Class VEs in the kindom of Thailand. A minimum of three VEs are required to conduct a U.S. Amateur Radio examination. If you are willing to help, please contact: hsøzm@amsat.org

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FNB-17	7.2v	600 mAh	$30.00
FNB-10S	7.2v	1200 mAh	$39.00
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EDP-18N	12v @	600 mAh	$47.00
DJ-180 DJ-580			
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Special Events

Fly-In

The members of the Fox Cities ARC will operate W9ZL from the Experimental Aircraft Association Fly-in and Convention in Oshkosh, Wisconsin 01-03 August. Look for them on the general phone portions of the HF bands, as well as RTTY and CW as conditions and operators permit. They will operate from "Pioneer Airport" adjacent to the EAA Aviation Museum. The club also will be giving "on grounds" convention information (no QSLs please) on 146.52(S). Proper QSL and SASE only to: Wayne Pennings, WD9FLJ, 913 N. Mason St., Appleton, WI 54914 for a special 8 x 10-inch picture certificate.

Old Barney celebration

The Old Barney ARC will operate N2OB from the "Old Barney" Barnegat Lighthouse in Barnaget Light, New Jersey, on 09 and 10 August from 1300-2300 UTC each day. Look in the lower 25kHz of General phone bands 40, 20, 15. Also 28.400 SSB, 146.52(S), 146.835(+) repeater and other local repeaters. For special QSL, send regular SASE; for special certificate, send QSL plus 9 x 12-inch SASE with 2 units postage to: Old Barney ARC, N2OB, P.O. Box 345, Tuckerton, NJ 08087.

Borough Bicentennial

The Philipsburg Amateur Radio Association (PARA) will operate N3ONE from 1300 UTC 26 July until 0100 UTC 27 July to commemorate the bicentennial of the Borough of Philipsburg, Pennsylvania. The station will operate on the General portion of the 80, 40, and 20 Meter bands, and the bottom 20kHz of the 30 Meter band. Stations contacted may request a QSL card by sending an SASE to: PARA, P.O.. Box 604, Philipsburg, PA 16866.

Labor Day

Robert D. Grant United Labor Amateur Radio Association will operate KB2YCT from 1200 UTC 30 August to 2400 UTC 01 September for "CQ Labor Day," honoring the working men and women of our country. Frequencies will be 14.303, 28.420, 52.525, 146.520 MHz. QSL for certificate to: R.D.G.U.L.A.R.A., P.O. Box 716, Nutley, NJ 07110.

Thomson Melon Days

The Palisades ARC and 90 West DX Association will operate W9BPT on 31 August from 1700-2100 UTC to celebrate Thomson Melon Days. Operation will be on the lower portion of the General 40 and 20 Meter bands. For a certificate, send QSL and 9 x 12-inch SASE to Bob Plumley, K9IEG, 1123 W. Main St., Thomson, IL 61285.

Montauk Point Bicentennial

AC2P/200 will be active from the Montauk Point lighthouse at the far eastern tip of Long Island (NA-026) and grid square (FN-30) on 02-03 August. Members of the Long Island DX Association will operate special bicentennial event stations from the museum at the base of the 200-year-old lighthouse. Times will be 1900 UTC 02 August to 1900 UTC 03 August. Frequencies: SSB on standard IOTA frequencies, CW as announced. A special commemorative QSL card will be available with SASE from AC2P's *Callbook*™ address.

Mt. Davis

The Somerset ARC will operate KB3BOD 1700 UTC 09 August through 10 2000 UTC August to commemorate operating from the highest point in Pennsylvania — from Mt. Davis. Frequencies will be 14.075, 14.275, 21.075, 21.350 MHz. For a certificate, send QSL to KB3BOD-SCARC, Box 1453, Gray, PA 15544.

Lennox Manufacturing

The Tama ARS will operate WDØGAT on 16 August from 1500-2300 UTC to celebrate the 100th Anniversary of Lennox Manufacturing. Operation will be in the General phone portion of 80 through 15 Meters and Novice phone 10M, and 2M. For certificate, send 9 x 12-inch SASE to: TARS/WDØGAT, P.O. Box 94, Montour, IA 50173. WR

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FRIDAY EVENING PRESENTATION: "TRAVEL ADVENTURES VIA AMATEUR RADIO" Speaker **Chip Margelli, K7JA**, of Yaesu USA will speak on his thirty years of experiences in Amateur Radio that have earned him over twenty-five wins as a worldwide aficionado of DX and international radiosport competition. Chip puts on a very interesting presentation and may show us some new things to try. Catch the DX fever!

ADDITIONAL FRIDAY HIGHLIGHTS: Join your friends at the hosted hospitality bar and discuss your convention activities. Be sure to catch Bill Wysock, N6UXW, doing his famous Tesla Coil Demonstration. And, don't forget that W1AW/6 will be on the air from the Holiday Inn's twelfth floor.

GRAND BANQUET SPEAKER: Astronaut **Dr. Ron Sega**, KC5ETH, Colonel in the United States Air Force Reserves. Colonel Sega was a Mission Specialist on shuttle mission STS-60, the first joint U.S./Russian Space Shuttle Mission. He was also a Mission Specialist on Atlantis shuttle mission STS-75. This shuttle mission included transporting the first U.S. woman astronaut to spend time on board the Mir, Dr. Shannon Lucid. YOU DON'T WANT TO MISS THIS FASCINATING CONCLUSION TO SATURDAY'S ACTIVITIES ! **BANQUET SEATING IS LIMITED TO THE FIRST 500, SO MAKE YOUR RESERVATIONS EARLY !**

DX BREAKFAST: Dr. Vince Thompson, MD, K5VT, will host the DX breakfast on Sunday morning. K5VT is well known for his DX activities in the ham radio community. He put on a fascinating program at last year's ARRL Convention held in Arizona covering his DXpedition to Benin, TY5A.

LADIES/SPOUSES ACTIVITIES: Historic Mission Inn Tour ~ Orange Blossom Trolly Sightseeing of Historic Downtown Riverside Crafts/Sewing Demos ~ H.T. transceiver demo ~ Special luncheon speaker April Moell, WA6OPS presents, "Many Faces of Amateur Radio", and much more - all three days!

ADDITIONAL HIGHLIGHTS: Dave Bell, W6AQ, as Master of Ceremonies at the Grand Banquet ~ Featured Speakers ~ ARRL Conferences ~ VE TESTING ~ YOUTH ACTIVITIES (some tentatively with Astronaut Sega) ~ Swap Meet and T-Hunt on Sunday ~ WOUFF HONG ~ EXHIBITS, all of the major manufacturers and distributors ~ **WAS/DXCC** Checking ~ Technical Seminars, and much, much more. Something for everyone! **PRIZES GALORE !**

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World Radio History

Product Review

PROLOG logging software

Jack Trampler, N2JT

PROLOG is a powerful Amateur Radio logging program written by Ed Longhi, W5VP, of Datamatrix, Inc. for amateurs who wish to keep a computerized log. From ragchewer to County Hunter to IOTA Hunter to DXer, everyone will find something in this program for them. It is a general purpose logging program that interfaces seamlessly with the world renowned PROLOG DX QSL Route manager.

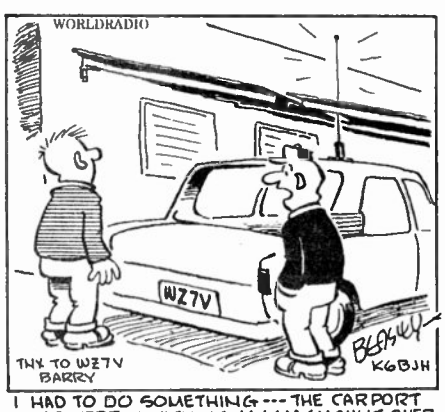
PROLOG requires DOS version 5.0 or greater and approximately 2.5 MB of hard disk space for the initial installation (another 4 MB for a logbook with 6,000 QSOs) and 400K of conventional RAM. The PROLOG DX QSL Route database requires another 11 MB of hard disk space for its current 56,000 routes. It will run on almost any DOS-based computer equipped with a hard disk drive. It does not require expanded or extended memory and is fully compatible with Windows3.1® and Windows95®.

So what does PROLOG do? It might be easier to say what it doesn't do. Besides keeping a computerized log for up to thirty-six different stations, it will automatically track DXCC, WAC, WAS, CQ and ITU Zones, County and IOTA statistics. It will also track up to 16 user-definable awards, plus 10-10 and Grid Squares. It will print QSL labels, address labels and return address labels, and has a built-in Packet terminal and bi-directional rig control. It will keep a record of the date you sent a QSL and the routing method used (either bureau, direct or manager), and the date you received a QSL and awards submission status (received, submitted, approved and void).

In addition, as you enter a call sign into the log, it will immediately display whether the station is a new award contact (and for which award) or a new contact for a specific band or mode. This is a handy feature since you can tell at a glance if the station is needed for an award. PROLOG maintains a 400-character free form "notepad" for each QSO if the 27-character NOTE field isn't large enough. It also supports the SAM, Buckmaster, QRZ and Flying Horse Call Books on CD-ROM and will automatically fill in licensee information. If the CD-ROM database has longitude/latitude data, PROLOG will also compute the Grid Square.

If you have the optional QSL Route database, upon entry of a call sign PROLOG checks the QSL Route database for a match. If one is found, it automatically displays the QSL manager's call in the QSL VIA field. Entries can be added or edited by the user. PROLOG also has an optional IOTA database. By entering the IOTA number in the IOTA field and depressing one key, the specific information about that island is brought to the top of the screen. It contains the island group, DXCC prefix, IOTA (Islands on the air) number, up to 75-character description, beam headings and distance. This file is modifiable by the user as more IOTAs are added to the list and will let PROLOG automatically track your IOTA statistics. For 10-10 buffs, a free optional 10-10/VP number database is available from Jim Hardy, K4HAV, via the World Wide Web. Once downloaded and installed, PROLOG will track both 10-10 and VP numbers.

". . . Everyone will find something in this program for them"



I HAD TO DO SOMETHING --- THE CARPORT ROOF KEPT KNOCKING MY MAGMOUNT OVER

Many programs use menus to navigate throughout and sometimes you may page through numerous sub-menus before you find your desired selection. This can be annoying and time consuming. Fortunately, PROLOG has kept menus to an absolute minimum, and with only a few exceptions, no menu goes to a sub-menu. Furthermore, almost every menu selection is accessible through a "hotkey." It only takes a few hours to learn the hotkeys and they make it very easy to navigate through the program. Should you forget a particular hotkey, you can bring up the menu by pressing the escape key; the highlighted letter in each selection is its hotkey.

Built-in packet terminal

PROLOG has a built-in packet terminal whereby you can communicate with your local DX-Cluster or BBS. PROLOG maintains three files of information received from the DX-Cluster. It keeps a file on WWV reports, announced DX, and a scroll-back buffer. At anytime you can examine previously announced WWV solar conditions or DX spots. The DX-Spot file lists all the announced DX in the typical DX-Cluster format. Directly beneath each DX spot, PROLOG generates a line that indicates what mode you need for that country on the spotted band. If your rig is connected to PROLOG using the transceiver interface, just move the screen cursor to the correct line, press the Enter key, and your transceiver will QSY to the spotted frequency.

The WWV and DX Spot files can become filled with outdated information and their size is limited only by the amount of hard disk space available. PROLOG has a menu selection to delete their contents; periodic use of this feature keeps these files small and current. The scroll-back buffer allows you to read information that has scrolled off the screen. Simply press the "Up" arrow to enter the buffer and use the Page Up/Down keys to page through the buffer. This buffer will display the previously received data exactly as it was received. I have

World Radio History

used programs that "crunch" the data contained in the scroll-back buffer making it very difficult to read and essentially useless. Prolog's dumb terminal interface, combined with the ability to set all Comm Port settings, including software/hardware signaling, makes it compatible with all TNCs.

Rig control is a pure joy to have in any logging program. My first experience with rig controlling software was with CT, and I marveled at how easy it made contesting. PROLOG is no different and its rig control makes day-to-day logging just that much easier, too. PROLOG uses bi-directional rig control, which means that the program will read and display the transceiver's frequency but that it can also change the frequency and mode from the keyboard. PROLOG is compatible with most modern Icom, Kenwood, Yaesu and Ten-Tec rigs and a complete list can be acquired from Datamatrix. PROLOG is supplied with custom radio control files for each compatible rig.

Basic contesting

PROLOG can also function as a basic contest logger. It was not designed to be a contest logger and will not replace CT or NA, but it can perform basic logging and dupe checking for the casual contester. PROLOG will also keep track of QSO serial numbers, automatically updating the counter as the QSO is logged. To use it in contest mode, the user first generates a new logbook by giving it a name, such as the name of the contest. This new logbook will be empty and any QSOs entered are strictly contest QSOs. If alerted to a dupe, a quick glance at the Multi QSO window will indicate whether this station has been worked on the current band or mode. PROLOG will not calculate points or track multipliers, but remember, PROLOG was not intended to be a full fledged contest logger.

Speaking of CT and NA, PROLOG comes with two programs to import your CT or NA file into PROLOG. In addition to these two import routines, PROLOG now has a ASCII text import log converter. This program should be of special interest to QSL managers whose DX stations do not use PROLOG. The DX station can now export his logbook to a comma delimited ASCII text file, and the manager can import that log directly into PROLOG. When importing logs with any of these routines, the user has the option of integrating the entire file, or only QSOs that represent a new contact for any award tracked by PROLOG.

PROLOG will also print QSO and address labels. At present only three sizes of labels are supported (3 x 15/16, 3 x 1 7/16, and 4 x 1 inch) and labels can be printed on both dot-matrix or Laser/Ink Jet type printers Multi QSO labels can be printed and the number of QSOs per label are limited only by the size of the label. A very nice feature is the address label function.

When selected, PROLOG will first print the QSO label, then access the external call book and print a mailing label on the next label. PROLOG can also select which label on which to begin printing so that you can reuse partially printed label sheets.

PROLOG can also print labels in batch mode. The user creates a List File by searching the database for records that match one or more parameters set in the Search Logbook function. You may then select individual QSOs in this file for printing or use the Batch File QSL Label function to print QSL labels for the entire file.

The manual

How many of us always read the operator's manual from cover to cover before we fire up that new transceiver or computer program? If you're like me, you don't. You fire it up, play away until something piques your curiosity or you're in trouble. Well, for those of you like me, never fear. While Ed strongly recommends reading the 130+ page manual before using PROLOG, you will be able to use almost every feature without reading. The manual is quite extensive and it comes on the disk as a DOC file that you can print out at your leisure. There is almost no subject that is not covered in the manual. Ed has a wealth of knowledge, but I strongly recommend that before you call him, take a look in the manual. More than likely, your answer will be right there. However, if you have a problem that you can't resolve, Ed will help you out. If you discover a bug in the program, Ed will look into it, fix it, send you the fix (via U.S. mail or e-mail). PROLOG is a good, solid performer. That, combined with the QSL Route manager, makes it a top-notch package.

Coming: Windows95®

So, what's in the future for PROLOG? Ed has advised me he is working on a Windows95® version that should be in beta testing before the year is out. Will it be a winner? Only time will tell, but if it's anything like the current version of PROLOG, you can bet it will be.

The PROLOG logging program is priced at $49, the QSL Route Database as a stand-alone product is $23 (both integrated is $64), and a one year QSL Route database update subscription (six issues) is an additional $36. Pricing of the Windows95® version has not yet been set, but licensed PROLOG users will receive a special upgrade price. All products may be ordered from Datamatrix, 5560 Jackson Loop NE, Rio Rancho, NM 87124 or call toll free 1-800/373-6564. Additional information may be obtained by calling 505/892-5669 or e-mail to <PROLOG@rt66.com>. The PROLOG web page is at URL http://www.qth.com/PROLOG. WR

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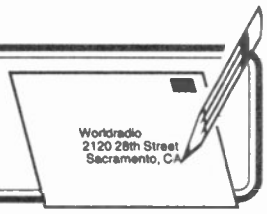

What the adjustable dot/dash ratio allows

The letter from Norm Briggs, KK6DW, as published in "Off the Air" in the July issue of ***Worldradio***, asks about the adjustable dot/dash ratio feature on many keyers. In a perfect world, all rigs would have identical keying characteristics, and pure mathematics would prevail for determining the optimum dot/dash ratio.

However, in the real world, all rigs in fact do not have identical keying characteristics. What sounds great from the sidetone speaker of the keyer may sound pretty bad over the air (or vice-versa!). The adjustable dot/dash ratio (or keying "weight") allows us to compensate for the differences. I'd much prefer to have the ability to adjust this keying attribute, even if I rarely have to fiddle with it, rather than suffer the frustration of using a rig with unsatisfactory keying characteristics over which I have no control.

Dick Sisson, W5ONL
Richardson, TX

More on dot/dash ratio

Many thanks for the freebie copy of ***Worldradio.*** Impressive! My check . . . for a subscription is on the way. In the meanwhile I would like to respond to question asked by KK6DW on page 18 of last month's issue, regarding "Why some rigs have an adjustable dot/dash ratio and what is the advantage?"

I recall back in the early days of CW (my ham radio interest started in 1929) when a good "fist" was everyone's goal. That meant proper dot to dash spacing, but that was not the easiest task with a straight key.

Well, there is no real *advantage* as far as communicating is concerned, and the only reason (that I can see) is a hangover from the days when a ham was recognized by the "swing" of his sending. Changing the ratio of spacing between dots and dashes was one way to be distinctive.

In the pre-Vibroplex days hams made their CW keys out of a hacksaw blade and a couple of wood screws (called a side swiper), which allowed for characteristic sending. This particular type of sending was always associated with this ham — probably just as distinctive as his call sign . . . often you could tell just exactly who was sending long before the call sign was heard.

Nick Laub, WØCA
Waynesville, NC

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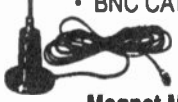

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Whose call is it anyway?

Eileen Traynor, NI2X

When I passed my Extra Class license back in the '70s, I waited for a special call sign with the prefix "NI." I wanted "NI" because it was the abbreviation for Northern Ireland where I was born.

As soon as I received my call sign, I applied for a N.Y. State vanity automobile plate "NI2X," my new call sign.

On many occasions, people showing their curiosity would ask, "What does NI2X mean?" This, of course, gave me an opportunity to start "talking up" Amateur Radio and try to recruit people into Amateur Radio or to join our Club, the Rockaway Amateur Radio Club in New York City.

One afternoon I had a UPS (United Parcel Service) delivery. The delivery man inquired about the license plate on my car parked at the bottom of the driveway. I, of course, went into my whole routine about Amateur Radio.

After listening patiently until my recruiting speech ended, he said, "Oh, I just thought someone in your house worked for UPS." "What do you mean?" I replied. "Well," he said, "We use NI2X all the time. When we make two delivery attempts and no one is home, we write on the delivery docket "NI2X" and return the package to our warehouse."

"NI2X," he explained, "means Not In Two Times." Boy, was I ever embarrassed! WR

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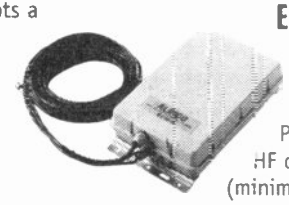

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Prices mentioned are MSRP, dealer prices may vary. Permits required for MARS/CAP use. Performance specifications only apply to amateur bands. Specifications subject to change without notice or obligation.

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Station Appearance

Jack C. Mellinger
NAØK

*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.

The evolution of the station began when I was first licensed in 1946 as W3KFC. Over the years I have also held W4DVV, W8GMO and my present call NAØK. My first rig was a breadboard 6L6 with an 80-type rectifier. which was later expanded to an 807 and then a pair of 810 amplifier tubes — all CW.

By this time I was in the developmental years of my career and moving the two six foot racks of equipment had become a problem. So I sold the rig and purchased a Collins AM rig. Later, with the advent of SSB, I moved to the Collins 32S line.

As my location stabilized and retirement at 65 approached, I began building our house on a small ranch near Pagosa Springs, Colorado. The photo shows our location and our antennas.

The cabinets themselves were designed by me, then built by a cabinetmaker at the same time that the house was being built — about 10 years ago. In the openings in the cabinets, which are standard panel sizes, I used regular aluminum panels of the appropriate size, milled holes in them to accommodate the appropriate switch or piece of equipment to be mounted and provided the necessary mounting brackets.

The amplifiers for each band are remotely located and, since there is a separate amplifier for each band, no tuning of them is necessary. Only the filament and plate power switches are needed to control them and the rotary antenna selector (in the middle top level) selects the antenna and the appropriate amplifier at the same time.

The equipment shown, beginning at the top left hand position and moving left to right on each of the three levels, is:

Top level

1. The main control panel with illuminated switches
   a. Main power — a key locked switch
   b. Desk light power
   c. Receiver's power
   d. Antenna rotator power
   e. Phone patch power
   f. Amplifier power
   g. Computer power
   h. Spare switches
2. Antenna and amplifier illuminated control switches
   a. Antenna selector rotary switch
   b. Digital antenna rotator
   c. Filament and plate power switches for individual band amplifiers
3. Power and SWR meters and spare phone patch controls

Middle level

1. Yaesu speaker with phone patch SP-8 with LL-7
2. Yaesu FT-1000MP transceiver
3. Yaesu FT-1000D transceiver

Bottom level

1. Audio control unit which selects microphone and transceiver
2. TNC
3. Two-meter packet transceiver

Below desk — computer keyboard

My interest is mainly DX; I have over 300 countries in spite of having operated over a very limited time. I expect to fully retire in about two years and hope to fill out the log at that time, with the help of the rising sun spots. **WR**

Chaverim meets

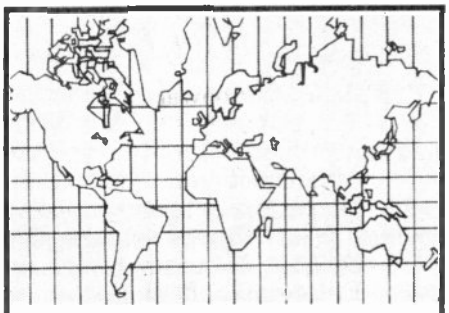
The eleventh annual convention of Chaverim International was held 06 through 08 June, in Ellenville, New York. More than 100 members from the United States and Canada were in attendance. An organization of Jewish Radio Amateurs and friends, Chaverim was founded to further Amateur Radio world-wide.

Retiring President, Harry Schneider, KB2SX, announced the recipient of the Man of the Year Award: Dorothy Halpern, WA2IOR, of Long Branch, New Jersey. Her countless hours and untiring dedication to details for many years have made the international conventions the successes they have been.

The new slate of incoming officers for 1997-98 are: President, Maurice Rotheiser, K6AIZ; First Vice President, Jack Singer, AA2UL; Second Vice President, Harold Bliss, VE3HBX; Corresponding Secretary, Rita B. Simpson, WZ2W.

For further information about Chaverim International, contact Paul Kane, WA6WGP, at his *Callbook*™ address, or e-mail to: WA6WPG@aol.com. **WR**

World Radio History



DX WORLD

John F.W. Minke III, N6JM
P.O. Box 310, Carmichael, CA 95809-0310
• E-mail: n6jm@pacbell.net •

W-100-N

The following DXers successfully completed the requirements for ***Worldradio's*** *Worked 100 Nations Award* (W-100-N):

519. Marion K. Minamyer, N8MOJ, 29 May 1997
520. Syunichi Oonuma, JA8XDM, 29 May 1997

Marion completed her necessary contacts all on CW as she doesn't use any other mode. Checking her entry, I noticed that Marion had at least one contact on eight of the HF bands. The only band missing was 160 Meters. Her certificate will be endorsed "All CW."

Our entry from Japan was endorsed "All 40M SSB." All of Syunichi's contacts were on 7 MHz. The award is not normally endorsed for SSB, unless it is all on a single band.

Valid entries for the *CATZ Award* are yet to be received. Who will be the first?

Libya (5A)

5A1A began showing on the bands again soon after the *CQ* Worldwide WPX Contest at the end of May, to the delight of DXers. Let's hope this one remains an active station for a while.

Annobon Island (3CØ)

The 3CØDX DXpedition to Annobon Island (AF-039) was cancelled at the last minute as the Guinea authorities would not allow visas for 11 of the 13 operators, according to *The OPDX Bulletin*. Everything was ready, which included airline tickets, equipment and the finances. The DXpedition has been rescheduled for this fall on 11 October.

Fiji Islands (3D2)

The OPDX Bulletin says that Jack, VK2GJH, will be operating from Suva Rabi Island in the Fijis as 3D2JH, 27 June through 05 August. His planned activity includes 6 through 80 Meters. He also plans to make a trip to Tuvalu (OC-015) on 05 July and operate from Funafuti as T2ØJH.

Uganda (5X)

The OPDX Bulletin reports that Mats Persson, SM7PKK, left for Uganda on 28 April under contract with the United Nations for about six months. His operating time will be limited. He will also be visiting the surrounding countries of Zaire, Rwanda, Burundi and Tanzania. If possible and if time permits, Mats will attempt to get on the air from those countries. Do not send QSL cards via his *Callbook* address, but rather via Mats Persson, Zenithgatan 24 #5, S-21214 Malmoe, SWEDEN.

United Arab Emirates (A6)

A61AN is often found working RTTY on 20 Meters. Look for him between 14.081 and 14.083 MHz. Other activity from this one is on SSB. He is usually found anywhere between 14.200 and 14.240 MHz. His operating times are from 1200 to 1300 UTC, and 2000 to 2200. He has also been found around 0000 to 0030 UTC near 14.240 MHz.

A61AJ is also on 20 Meters SSB. Try the slot from 14.198 to 14.200 MHz from about 0100 to 0300, UTC.

A61AQ is another active station on 20 Meters. For this one, try 14.253 to 14.255 MHz beginning at 2300 UTC to about 0200 UTC. He has also been reported as far down as 14.180 MHz.

Only one report of activity on 15 Meters from this country was noted during the month of May, and that one was A61AQ on 21.240 MHz around 1910 UTC on 27 May, working a German DXer.

Two other calls were also reported on the *Webcluster*, A61AS on 14.189 MHz around 2130 UTC, and A61AZ on 1.845 MHz at 2355 UTC.

Andorra (C3)

Several stations from Andorra were reported in May. Unfortunately, almost all of the reports were from European DXers. Perhaps they will begin listening for stateside calls soon.

On 20 Meters C31MO has been worked in the area between 14.206 and 14.260 MHz, usually around 1100 UTC. And, also on that band, C31SD. Check near 14.170 MHz after 2130 UTC.

Carles, C31UA, shares his operating time between 10 and 75 Meters. On the latter he shows often near 3.790 MHz after 0400 UTC.

Mostly on 10 Meters SSB, C31HK has been very active but did have a couple of 15 Meter spots.

Iran (EP)

A station signing EP2MKO was very busy on 23 May working DXers on 14.004 MHz. A review of the *WebCluster* indicated all the contacts were reported from the U.S. except two, one each from Canada and Brazil. He was first reported around 2345 on the 22nd and continued for about an hour. A QSL

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World Radio History

route of UA6HCW was given, indicating that the operator may be a visiting Russian.

The Daily DX claims that Ali, EP2AG, was to show on the bands 29 May on 20 Meters along with Moshen, EP2SMH, who runs only 6 watts.

Svalbard (JW)

JW7QIA has been dishing out contacts from Svalbard (EU-026), a very active call on 20 Meters SSB near the lower reaches. Try 14.150 to 14.195 MHz, although he has been reported as high as 14.247 MHz. Activity has been reported at several different time slots.

He has also been on CW and reported at 14.011 to 14.019 MHz. Try listening around 1000 UTC.

Amsterdam Island (FT/Z)

The *DX News Letter* notes that Eric, FT5ZG, on Amsterdam Island (AF-002), is now back on the air after receiving the amplifier sponsored by the Clipperton DX Club. However, nothing much has been reported of activity from Eric, even after receiving his amplifier. Many are looking for him.

Ron Hill, K6UR, reported hearing FT5ZG, on 17 May around 1300 UTC, working CW on 40 Meters. Ron suggests listening near 14.040 MHz.

The *Juliet Alpha Cluster* reported Eric on 15 Meters at least twice during the month of May. Try listening between 21.004 and 21.019 MHz; he was worked in to Japan around 0900 UTC.

Miniami Torishima (JD1)

JD1BIY has been active from Miniami Torishima (OC-073) working Japanese DXers. Try 20 Meters near 14.215 MHz around 1445 UTC. On 17 Meters try 18.127 to 18.135 MHz after 0300 UTC.

JD1BJP has also been reported, but he is on Chichi-jima, which is Ogasawara (AS-031).

Mount Athos (SV/A)

Monk Apolo, SV2ASP/A, shows on the bands now and then. On 02 May he was very active on 40 Meters SSB working the Europeans near 7.043 MHz. *DX News Sheet* reported him on 14.190 MHz around 0700 UTC and on RTTY near 14.083 MHz at 1200 UTC on 30 April.

Chad (TT)

Baldur, DJ6SI, was active on the bands during the early part of May signing with TT8DX. QSL requests should be sent to him direct (with SASE) only and not via the Bureau system. Not much activity of him was reported on the West Coast and I still need that one! His last contact was on 09 May.

Willis Island (VK9W)

425 DX News reports that the Oceania DX Group is planning a DXpedition to Willis Island (OC-007) the end of this summer. The list of operators will include Harry VK4DHM, Bob VK4MR, Jon VK4CY, Ann WA1S, Jon K7CO, Gaby XE2Z, Elvira IV3FSG, Eric FK8GM, Bill VK4FW, and possibly others.

The team will leave Australia for the island on 09 September 1997 and plans activity for 12 days with six complete HF stations, 10 through 160 Meters, CW, SSB and RTTY. There will be separate call signs for YL and OM operators.

The planned budget for the operation is $33,000 and donations will be appreciated. You may send your contributions to: Oceania DX Group Willis Effort, P.O. Box 929, Gympie 4570, AUSTRALIA.

During their return trip to Australia, the group plans to stop at Holmes Reef for about 30 hours of operation for the IOTA island chasers. No IOTA reference number has been assigned to this one as the island has not yet been activated.

Further information on the progress of the DXpedition is available from the Internet at http://www.keylink.com.au/odxg.

Heard Island (VKØIR)

Bob Schmieder, KK6EK, has written another book about DXpeditions— this one about the record-breaking QSO VKØIR Heard Island DXpedition. The book contains a complete and detailed statistical analysis of the VKØIR log, together with some new results on the propagation, including the "black hole" in the U.S., plus many other interesting details.

The book is a 224-page hard cover, and is full color throughout. To order your copy, send $25 plus $3 for postage (DX please include $8) to Dennis Motschenbacher, K7BV, 4357 Appollonio Way, Carson City, NV 89704. Please make out your check to Cordell Expeditions/ Heard Island.

If you prefer an autographed copy from the author, then order direct from Robert Schmieder, KK6EK, 4295 Walnut Blvd,. Walnut Creek, CA 94596.

There are other souvenirs available, which help pay for the cost of the DXpedition. For further information on these items check their web page: http://www.ccnet.com/~cordell/HI.

Other books prepared by Bob included that of the 3YØPI Peter I Island DXpedition, and the XYØY, Easter Island DXpedition. All revenues from these backs help finance the DXpeditions.

North Cook Islands (ZK1)

The Dateline DX Association DXpedition to the North Cook Islands in September is moving along as planned. They plan an operation from 20 through 27 September.

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World Radio History

The operators include: Dick Moen, N7RO; Rick Neuman, N4RF, (formerly AB4AE); Robert Pond, WA4YBV; Richard Watt, KI6AN; Tom Harrell, K8XP, (formerly AL7EL); with Chris de Beer, ZS8IR, and Mike Mraz, N6MZ, their newest two additions. Look for ZK1XXP which will include three operating stations.

Chatham Islands (ZL7)

According to *425 DX News* the 1996 ZL8RI DXpedition team will again be active for a week at the end of October from the Chatham Islands (OC-038). Participation is expected in the *CQ* World Wide DX Contest.

IOTA

Jay, KØBCN, says that he will be active from Caye Caulker (NA-073) in Belize 21 through 29 October 1997 signing V31MX. Jay plans activity on both CW and SSB on 10, 15 and 20 Meters. F5GVH will activate Belle Ile (EU-048) this summer from 18 August through 02 September.

425 DX News reports that Nick, R1FJV, is active mainly on CW from Franz Josef Land (EU-019) until the end of the year. Note that this one also counts as a separate DXCC country.

Oleg, RØ/UR8LV, is planning a DXpedition to Bolshoj Begichev Island (AS-no ref) the latter part of August. Donations are welcome and may be sent to Igor, UR5LCV.

David, ON4BDS, will activate at least five IOTA groups from the west coast of France this July signing with F/ON4BDS/P. His tentative schedule, which is subject to change is as follows:

EU-157	Cezembre Islands	13-16 July
EU-074	Brehat Islands	16-19 July
EU-065	Ouessant Islands	19-22 July
EU-068	Sein Islands	22-25 July
EU-094	Glenan Archipelago	25-28 July

Operation will be on all HF bands, both CW and SSB. He also plans activity in the IOTA contest.

Look for N6VV/VE7 operating from the Dundas Island group (NA-118) 31 July through 02 August. Operating from Green Island, this group will be activating for the first time since 1989.

Franco, I4LCK, reports that QSL cards for the HS9AL operation from Terutao Island (AS-126) are being mailed the end of June.

Station Alert on Ellesmere Island (NA-008) has been shutdown as the facility has been automated and will no longer be manned. Located at 82.2N 62.2E, this was the most northern settlement in North America at about 450 miles from the North Pole. VE8RCS, the Amateur Radio station located there, had been on the air for over 30 years. Most active DXers worked this one at least once during that period. Check your logs to see if you have that one confirmed.

Gary, K9AW, was to have been active in the *CQ* Worldwide WPX Contest the last weekend in May signing with K9AW/DU6 on Negros Island (OC-129). Also very active in the contest was that Czech group on Pantelleria Island (AF-018). Their call during the contest was IH9/OK5DX and collected over 3,900 contacts. Outside of the contest their calls were IH9/homecall.

If you are new to DX and haven't already figured it out, IOTA is an acronym for Islands On The Air, sponsored by the Radio Society of

DX Prediction — August 1997

Maximum usable frequency from West Coast, Central U.S. and East Coast *(courtesy of Engineering Systems Incorporated, Box 939, Vienna, VA 22183).*

The numbers listed in each section are the average maximum usable frequencies (MUF) in MHz for contacting five major areas of the world centered on Africa-Kenya/Nairobi, Asia-Japan/Tokyo, Oceania-Australia/Melbourne, Europe-Germany/Frankfurt, and South America-Brazil/Rio de Janeiro. Chance of contact as determined by path loss is indicated as bold *MUF for good, plain MUF for fair, and in parentheses for poor. UTC in hours.

CENTRAL USA

UTC	AFRI	ASIA	OCEA	EURO	SO AM
8	17	*(13)*	***20**	*(12)*	***15**
10	*(20)*	11	***17**	*(11)*	***16**
12	26	***14**	***15**	17	18
14	29	18	*(14)*	19	24
16	30	15	*(13)*	20	***27**
18	***30**	*(12)*	*(13)*	19	***30**
20	25	19	25	17	***31**
22	21	22	30	*(13)*	***32**
24	***18**	21	32	*(11)*	***26**
2	***16**	19	31	***11**	***21**
4	***16**	18	29	***16**	***18**
6	20	15	24	14	***16**

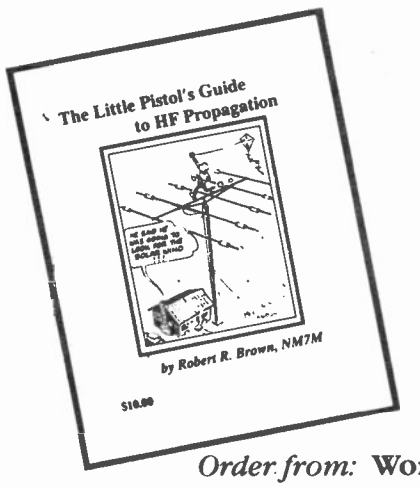
WEST COAST

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

EAST COAST

UTC	AFRI	ASIA	OCEA	EURO	SO AM
7	17	*(12)*	***20**	11	***15**
9	*(18)*	11	***17**	14	***16**
11	25	***15**	16	18	18
13	29	15	*(14)*	***20**	23
15	30	*(13)*	*(13)*	***21**	***27**
17	30	*(11)*	*(13)*	***20**	***29**
19	***27**	*(14)*	*(20)*	18	***31**
21	22	*(18)*	28	15	***30**
23	***19**	20	31	***13**	***29**
1	***17**	19	31	11	***24**
3	***13**	18	29	***13**	***20**
5	19	15	24	***13**	***17**

Don't let the bullies kick sand in your face!



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World Radio History

Great Britain. The program was created by a famous SWL, the late Geoff Watts of England.

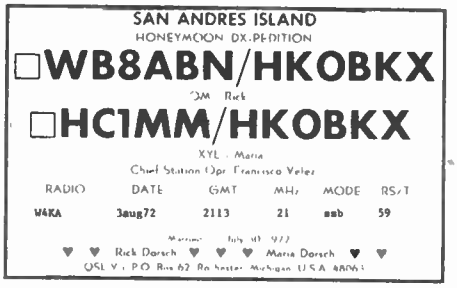
IOTA Contest

Here are some more anticipated IOTA contest activity reported during the month of May. The contest is the last weekend in July.

EU-044	Soroya Island	LA/F5YJ
EU-048	Groix Island	F5SNY
EU-094	Glenan Archipelago	F/ON4BDS/P
EU-120	Lundy Island	G3RTE
EU-123	Great Cumbrae Isl.	GM3USL/P
EU-146	Goeree Overflakkee	PA3BDQ/P
NA-051	Queen Charlotte Isls.	N6VV/VE7
NA-127	Long Island	VE1JS/P

Antique QSL Department

This month we will continue with the cards from the collection of Leo Haijsman, W4KA, both of which are at least 25 years old. The first card is a "Honeymoon DXpedition" card. As to why any young man would want to play radio on his honeymoon is beyond me, but this is besides the point.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☐WB8ABN/HKOBKX
OM - Rick
☐HC1MM/HKOBKX
XYL - Maria
Chief Station Opr. Francisco Velez
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Merci - July 31 '72
♥ ♥ Rick Dorsch ♥ ♥ ♥ Maria Dorsch ♥ ♥
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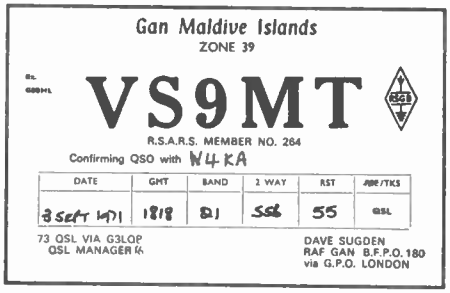
Leo worked newly married Rick Dorsch, WB8ABN, as he operated from the shack of the late Francisco Velez, HKØBKX, on San Andres Island. Active DXers will recognize this individual as Dr. Rich Dorsch, who now signs with NE8Z.

The second card is for a contact Leo made with VS9MT of the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Confirming QSO with W4KA

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Maldives, operated by Dave Sugden. Dave, who was also G8BHL, was with the British RAF. A check with the *Callbook* on CD-ROM list two operators with the name D. Sugden, G4BRA and G4CGS, both with the same address. Perhaps Dave is one of two, or has two calls. Presently, all calls from the Maldive Islands use the 8Q7 prefix.

Conventions

The 1998 International DX Convention will be back in Visalia next May at the usual place, the Holiday Inn and will be hosted by the Southern California DX Club.

The 1997 affair was hosted by the Northern California DX Club at Fresno, the city where the annual convention was originally held for many, many years. The change back to Fresno was a good move, especially since Fresno is easier to reach by scheduled air service. Unfortunately, I could not attend the convention this year and cannot comment on the success of the convention.

As to why the move back to the Holiday Inn in Visalia, I cannot answer that. Many DXers feel that we have outgrown Visalia, as the facility cannot support the large crowd and provides less than satisfactory accommodations.

Anyway, the convention will be held the first three days in May 1998. The hotel will not accept reservations prior to 01 August 1997 unless you attended this year's convention.

A review of the program for the New Orleans International DX Convention show that this August looks very good. The usual QSL checking for DXCC awards will be available both Friday and Saturday. Other topics will include DXpeditions to Navassa Island, Howland Island, St. Paul Island, St. Peter and St. Paul Rocks, Midway Island, and others. The VKØIR program will be the main event at the banquet.

Refer to my column in last month's issue of ***Worldradio*** for registration information.

DX on the Internet

If you have Internet capabilities you will be pleased to know that now available there is *The Daily DX*, edited by Bernie McClenny, W3UR. Prepared five days a week it is sent direct to you via your e-mail address. Published 50 weeks per year, this information will reach you two to three days before any of the other DX publications that use the ordinary mails.

The Daily DX provides the latest DX information collected from a world-wide network of sources. The raw DX data is put into a user-friendly format to meet your Dxing needs. You will receive information about future DXpeditions, QSL information, propagation forecasts, IOTA, post DXpedition write-ups and more. For more information visit Bernie's homepage at http://www.wdn.com/thedailydx.

Subscription rates are $49 per year, or $28 for six months.

QSL Information

Ken Hoppe, KH7R, informs us of an error in the QSL route for KH7R, in the June issue. The QSL route is not via K9PG, but direct to Ken at P.O. Box 31241, Honolulu, HI 96820. Thanks, Ken, for the correction. The information for the QSL Routes come from many sources and may contain errors.

Ken also would like to remind readers that the KH7 prefix no longer applies for Kure Atoll. Stations operating from Kure Island will have their call appended with KH7K.

Paul Gentry, K9PG, also informed me of the error, which also applies to KH7X. As I have stated over and over again, my listings come from many sources, and with several hundred calls in each issue, so it is not feasible to contact every QSL manager first.

Paul also says he manages QSL

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MBC-068-40	160-80-40M BROAD BANDER	105' LONG	$73.00
MS-064-832	160-80-40-30-15-12M DOUBLE SLOPER	60' LONG	$79.00

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World Radio History

QSL Routes

The following QSL routes are correct to the best of my knowledge and cannot be guaranteed. Corrections would be appreciated. Please refer to the notes where indicated. QSL Managers listed as double calls, such as NN6C/KM6ON, are those managers who have changed their calls.

3A/IK1CJO —IK1CJO
3A/IK1QBT —IK1QBT
3A/ON5FP/6NN —ON5FP
3B9RD —IK5XCT
3C0DX —EA4URE
3D2JH —VK2GJH
3D2ME —JG2EBN
3D2RW —ZL1AMO (1)
3DA5A —JH7FQK
3V8BB —YT1AD
3W6AR/S —XW2A
3X43A —F5IEV
3Z0AU —SP6CZ
3Z0JP —SP6GVU
3Z1PEA —SP1NQF
4F4IX —DU1IF
4J52P/K52C —4K9C
4K52DBI —4K7DWZ
4K9W —DL6KVA
4L1UN —RW6HS (3)
4L4MM —TA2DS
4L5A —IK3HHX
4L8A —OZ1HPS
4N0S —YU7JDE
4O4C —YU4WU
5H3HG —WY3V
5H3J —G4YZL
5H3JA —K0OB
5H3KII —OH2KI
5K3W —HK3SGP
5N0T/YL —F2YT
5N3/SP5XAR —SP5CPR
5T5FA —IK3GES
5X1K —F6FNU
5X4F —K3SW
5Z4R —N2AU
6K96EAG —HL5BUV
6K97EA —Bureau
6K97EAG —HL5AP
6W1/F6KPQ —F6KPQ
6W1QV —F6FNU
6W6/K3IPK —K3IPK
6Y4A —WA4WTG
6Y5DA —VE4JK
7S6NL —SK6NL
7X2RO —F6FNU
7Z1IS —SM0OFG
7Z5OO —W1AF
8J1RL/RM —Bureau
8P9DA —KU9C
8P9IJ —VE3VET
8Q7BP —EA2BP
8Q7LT —DK0FTG
8Q7LU —EA2CLU
8Q7QQ —HB9QQ
8Q7UZ —DL8UZ
8Q7WX —K9PG
8Q97FTG —DK0FTG
8R1ZB —JH1NBN
8SL6PFF —SK6AW
9A90CBD —9A3UF
9G5CW —DL2RUM
9H1EL —LA2TO
9H1RHM —KV5V
9H1ZE —IZ3AHY
9H8CI —9H1ZE
9J2BO —W6ORD
9J2GA —F5PYI
9J2TF —JA2BOV
9K2/SQ5DAK —SP5KQS
9M2EU —JA2EJI
9M2OM —G0CMM
9M2RY —N4JR
9M2TO —JA0DMV
9N1SM —VE8PW
9Q5BQ —HB9AMO
9U5T —F2VX
9V1AN —JJ1TBB
9X/RW3AH —RW3AH
9X4WW —ON5NT
9X5HF —LA2HFA
A61AS —YU3FRI
A71BY —F5PYI
AH8N —DU1QKU
AP2MAM —IK7JTF
AT0ITU —VU2AR
AX1ITU —VK1FF
AX2ITU —VK2PS
BA4TB —9A2AJ
BV/JA3TJA —JA3TJA
BV/JH3IMR —JH3IMR
BV0THU —DL5AUJ
BV3/DJ3KR —DJ3KR
BV9O —BV8BC
C6AGN —KA1DIG
C6AIE —WZ8D
C6AJQ —DL3ABL
C6AJR —WB8GEX
CE0/JA7KXD —JA7KXD
CF3NYC —VE3CFL
CM8DC —IK0ZKK
CM8DM —HI3JH
CO7KR —DL5DCA
CO8HF —CT1ESO
CP8XA —DG9NB
CQ1A —CT1CFI
CQ4FMX —CT1FMX
CQ6U —CT4UW
CQ8I —DJ0MW
CS1CRA —CT1BWW
CX6VM —W3HNK
CY0PDA —Slim!
CY9AA —VE9AA
D2BB —EA4BB
D2EB —I3LLH (2)
D2M —OH3LQK
E21AOY/8 —7L1MFS
E21CJN —W3PP/K3WUW
EA5RKX —EA5OL
EA7HDQ/P —Bureau
ED2ISN —EA2BUF
ED3TMC —EA3DGN
ED4FMM —EA4SS
ED4TCM —EA4AAA
ED5DX —EA5GRC
ED5RCC/ED3 —EA5AOR
EJ2HY —EI2HY
EJ2IB —EI2IB
EK6GC —W3HNK
EK6OCM —K6EID
EM2I —NA3O
EO5IG —UR7IA
EO5JGP —UU4JXI
EO5QZ —UX7QQ
EP2MKO —UA6HCW
EP2MKP —UV6HPV
ER5GB —W3HNK
ER9A/V —ER1DA
ES1RA/0 —ES1RA
EW1AA —LA7NK
EW2CR —NF2K
EW52BO —EW2EO
EW52OB —EU1FC
EY1ZA —W3HNK
EY8/K4YT —W2TK
EY8AM —DF3OL
EY8CQ —W3HNK
F/DL2RBY/P —DL9NCW
F/G0GRC/P —G0RCI
F/G3RTE/P —G3SWH
F/G3SWH/P —G3SWH
FG5HR —F6BUM
FK/JE1OYE —JM1LJS
FK/JJ1DW3 —JM1LJS
FK/JM1LJS —JM1LJS
FM5DN —KU9C
FM5GU —WA4JTK
FO5PI —F5OTZ
FT5ZG —F5RQQ
G3HTA/P —G3HTA
GB100BD —G0WMW
GB100FI/LP —GW0ANA
GB2MI/6M[—GM0KVI
GD0TOU —G0TOU
GM0KJW —G0KJW
GM3TTC/P —G3TTC
GM3USL/P —GM0KVI
GM4DHF/M —G4DHF
GM4SID/P —GM4SID
GM5VG/P —GM3UTQ
GS4TMS —GM4UYE
GX4MB —G4BWP
H22A —YL3AF (1)
HB0/DA1WA —DJ0LC
HB0/HB9LEY —JH1BSE
HC1OT —K8ZZ
HD8K —HC5K
HG1S —HA1KSA
HL5KY —W3HNK
HP1XBI —F6AJA
HS50A —I1JQJ
HZ1AB —K8PY
IA5/IK5AMB/ —IK5AMB
IA5/IZ5AXB —IK5AMB
IB0/IK0ZAR —IK6MWK
IB0/IK6JOT —IK6MWK
IB0/IK6MWK —IK6MWK
IH9/OK1MD —OK1MD
IH9/OK1TN —OK1TN
II1H —I1HJT
IL3/I3ILH —IK3GES
IL3/IK2HTW —IK3HTW
IL3/IK3GES —IK3GES
IL3/IK3QAR —IK3GES
IL3SP —IK3GES
IL4/I2OGV —IK2XDE
IL4/IK2XDE/F —IK2XDE
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IQ1A —I1JQJ
IQ3AC —IK3GES
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IU3V —IK3VIA
IZ9R —Bureau
J28MD —DL2RDP
J37ZC —K9PG
J41W —SV1CIB
J52IM —KB9XN
J68WX —K9PG
J83ZB —JH1NBN
J87GU —DL7VOG
JA2ZTR/1 —JA2ZTR
JI6KVR —EA5KB
JT1FBW —G3YBO
JW0L —G8APB
JW7QIA —LA7QIA
JW8GV —LA8GV
JY8YB/M/9QJ —DL5MBY
JY8YM —DL5MBY
K4ISV/VP5 —W4FRU
K9AW/DU6 —WF5T
KC6HN —JF1VXB
KH0AA —JA5DQH
KH0M —JF1VXB
KH2D —K8NA
KL7AK —N6IV
L70FM —LU4FM
LM1K —LA1K
LM2T —LA2T
LX0ITU —LX1JH
LX2MR —IK3GES
MU0ASP —F5SHQ
MX0ADJ —G3NYY
N4BQW/KH7K —WA4FFW
N6VV/VE7 —N6VV
NH2C —JI3ERV
NP4A —W3HNK
OD5MM —HB9CYH
OD5NA —IK3ZAW
OD5PI —IK7JTF
OH0JWH —DJ2PJ
OH0JWL —DL5FF
OH0LIZ —OH5YW
OH5AB/MVI —OH5NE
OJ0/DL1IAN —DL5IO
OJ0/DL3YEL —DL5IO
OJ0/DL5IO —DL5IO
OJ0/DL6GV —DL5IO
OM1X —OM3LZ
OM2I —OM3TA
OM3A —OM3JKAG
OM3B —OM4HL
OM3M —OM3IM
OM3T —OM3TU
OM3W —OM7KK
OM5A —OM3LA
OM5M —OM3KFF
OX3XR —OZ3PZ
OY/DK6QW —DK4QO
OY/DL3QQ —DK4QO
OY/DL4YBZ —DK4QO
OY/DL4YFB —DK4QO
OZ/LX9EG —LX9EG
P29VR —W7LFA
P40W —W2GD
P40W —N2MM
PJ2MI —K2PEQ
PT7VB —DL4HRH
R1/RR4F —Bureau
R1ASP —RA1AD
R1FJL —UR5MAL
R1FJR —F5PYI
R1FJV —UA3AGS
R1FJZ —U3AJ
R1MVI —OH5NE
R60UPOL —UR8LV
RA0FA —WK6C
RA6WA —IK3GES
RK2FWA —DK4VW
RN3QO —N2UCK
RP0AKO —RK0AZZ
RP1N —RK1NWA
RP3DPW —RK3DXG
RP3DTF —RZ3DO
RP3QWK —N2UCK
RP3RST —RX3RXX
RP3ZKB —RK3ZZ
RP4FMK —RZ4FXX
RP6APT —RK6AYN
RP9ATZ —UA9AB
RS4Q/P —JE1OXE
RX9TN —W3HCW
S0A —EA2JG
S21/PA3BTQ —PA3BTQ
S21YE —G4VLV
SM3EVR/BV2 —SM3EVR
SM4DDS/7 —SM4DDS
SN0IHS —SP6ZDA
SN9JPT —SP9HWN
SN9JPZ —SP9KGG
SO6SL/M —DL2SL
SP6ZDA/1 —Bureau
SU0ERA —SU1ER
SV0HS/SV9 —DJ8MT
SV5/HA0HW/P —HA0HW
SV5/HA4GDO/P —HA4GDO
SV5/HA6NL/P —HA6NL
SV5/HA6PS/P —HA6PS
SV5/HA6ZP/P —HA6ZV
SV5/OM3LA —OM1APD
SV9/DL8SET —DL8SET
SV9/I2YYO —IK2MYX
SV9/PA3GIO —PA3GIO
SX2THE —SV2TSL
T00CW —DL3OCH
T20JH —VK2GJH
T30WP —JA1WPX
T33BH —VK2GJH
T88CK —HB9DCK
T88HN —JF1VXB
T88JA —JA6BSM
T88JZ —JA7FWR
T88TY —JA6PJS
T88X —JA6BSM (5)
T94GB —S52CX
TA2FE —KK3S
TA2IJ —DJ9ZB
TA2ZY —V85HY (3)
TA3DD —TA1KA
TA3ZK —DL4VBP
TA4/DL1CW —DL1CW
TF/IT9ESZ —IT9ESZ
TF/LA6ZH —LA6ZH
TF/PA3DWD —PA3DWD
TJ1GS —EA4AHK
TK/DJ3XG/P —DJ3XG
TK/DL0VS —DL0VS
TM2VH —F1CSZ
TM5B —F5FOD
TM5BCU —F5XX
TM5EUR —F5EMN
TM5FER —F6KEQ
TM5PR —F5KCV
TM7I —F5JYD
TM9A —F5CCO
TM9CMN/MM —F6GPE
TN/F5OZS —F6FNU
TO0CW —DL3OCH
TO9PL —N0JT
TT8DX —DJ6SI (1)
TU2XZ —W3HC
TU5DP —K4MQL
TZ6BHV —IK3GES
UA0AZ/FZ —W3HNK
UA1ZO —LA8PF
UE50XN —UA9XEN
UE50XS —UA9XS
UN7DA —KL7IDA
UN7JID —UN7JX
UN9PQ —IK2QPR
US7ZL —W3HNK
UT7CC —UX1CX
UU0JM —W1TE/WA3TXR
UX3M —UR3MP
UZ0OWM —UA9OA
V26NA —KX9X
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V47XC —G0IXC
V5/W8FTD —WA0WAU
V63DA —JE5WJM
V63HZ —JF1VXB
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VK0GW —VK5GW
VK0IR —W4FRU
VK0TS —VK1AUS
VK4AHN —JF1VXB
VK9EHH —K8VIR
VK9XB —JJ1TBB
VP2EV —K7BV
VP2MGG —WB2YQH
VP5/K4ISV —W4FRU
VP5/K5GN —K5GN
VP8CEH —G0NWY
VP8CTR —DL5EBE
VQ9LV —KY3V
VQ9VK —AA1OJ
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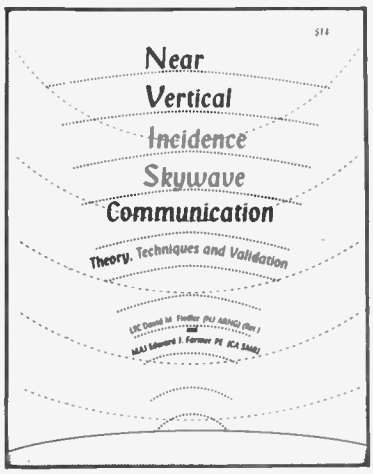

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YB8ZY	—YC8KAR	Z32XA	—NN6C/KM6ON
YC8TXW	—YB5NOF/8	Z32XX	—NN6C/KM6ON
YC8TZR	—YB5NOF/8	Z37FCA	—NN6C/KM6ON
YC8YR	—YB5NOF/8	ZA1Z	—HB9BGN
YI1US	—WA3HUP	ZD7HI	—N2AU
YI9HW/VK	—HAØHW	ZD7WRG	—WA2JUN
YN1KDM	—TI5KD	ZF2GS	—DL1DA
YN1RLI	—WA4JTK	ZK2EH/L9DX	—K8VIR
YN4/WK6Q	—KB5IPQ	ZPØM	—ZP5XF
YN6WFM	—JA6VU	ZP2EHA	—DH1PAL
YS1RRD	—W3HNK	ZP5/LU6BEG	—LU6BEG
YT4I	—YU4WU	ZS45TWR	—ZS4Y

requests for FS5PL contest operations *only* during the 1996 ARRL and Worldwide SSB DX contests. For all other contacts the QSL Manager is NØJT (formerly KFØUI). As Paul has operated from other locations, he also handles QSL requests for those. So, if you see K9PG in the QSL routes it is not necessarily incorrect.

There are times when some deranged individual thinks it cute to list someone as a QSL Manager for a DX call when he really isn't. What eventually happens is that it burns a lot of DXers who accept it as correct. These types are the same as those Slims who prey on our enthusiasm.

QSL Addresses

4J8YL	—P.O. Box 214, 370000 Baku,
4L7C	—P.O. Box 387, Yeroham 80500, Israel (5)
5A1A	—Abubaker, P.O. Box 74421, Tripoli, Libya
5W1PC	—Perry, P.O. Box 2007, Apia, Western Samoa
8P6EX	—Beresford, Blackman, Allen View, St Thomas, Barbados
A41LZ	—Murtadha, P.O. Box 2837, Ruwi CP112, Oman
A61AJ	—Ali, P.O. Box 15003, Dubai, United Arab Emirates
A71CW	—P.O. Box 22101, Doha, Qatar
A92GE	—David, P.O. Box 1976, Manama, Bahrain
BD4RA	—Gu, P.O. Box 542, Nanjing, People's Republic of China
EK6GC	—P.O. Box 25, Charentsavan, Armenia
EP2SMH	—Mohsen, P.O. Box 17665-441, Tehran, Iran
EP2AG	—P.O. Box 16765-154, Tehran, Iran
EW52OG	—P.O. Box 105, Gomel 246050, Belarus
FK/F5PXQ	—D. Lavisse, Caserne Normandie, BP 12, 98842 Noumea Cedex, New Caledonia
J69B	—P.O. Box 1328, Castries, St. Lucia
JH4FBV	—Hironori Funahashi, 1-11-38 Hamanochaya, Kurashiki-city, Okayama, 710, Japan
OK7DX	—MDXG-VYCOM, P.O. Box 54, 62700 Brno, Czech Republic
RA9JP	—V. Kljucherov, ul. Parkovaja, 15-A-57, Langepas, Henty-Mans. AO, 626449 Russia
RW6HS	—Vasily Kasjanenko, P.O. Box 20, Georgievsk, Stavropolsky Kraj, 357800 Russia
S92SS	—C. Lewis, American Embassy Athens Greece Relay Station (KAV), PSC 108 Box 39, APO, AE 09842
TA3BN	—P.O. Box 976, Izmir, Turkey
TJ1HP	—P. Hornus, P.O. Box 2311, Douala, Cameroon
TMØRSE	—P.O. Box 20, F-14480 Creully, FRANCE
UT5EA	—Igor Chmyr, P.O. Box 3506, Dnepropetrovsk 18, 320018 Ukraine
V31RG	—Marty Henderson, Punta Gorda, Belize
V85HY	—Hiroshi Yamada, Embassy of Japan, P.O. Box 3001, Bandar Seri Begawan, Brunei
VU3HKQ	—Harkirat Singh, 596 Sector 18-B, Candigarh 160018, India
WP2Z	—Anders Larsson, Riedhalsstrasse 10, D-60437 Frankfurt, Germany
YB5QZ	—Anton Iriawan, P.O. Box 1035, Pekanbura 28010, Indonesia
YF7PT	—Eko, P.O. Box 226, Banjarmasin 70001, Indonesia
YI1ALW	—P.O. Box 55072, Baghdad,
YI1RS	Iraq
ZD7BG	—P.O. Box 157, St. Helena Island

Notes:

1. Please send your QSL requests direct only; do not use the bureau system.

2. There have been some reports that Stu, WA2MOE, is the new QSL Manager for Gabriele, D2EB. This is incorrect; do *not* send requests via WA2MOE.

3. Please refer to this manager's address in the list of addresses that follow at the end of the QSL Route listings.

4. A direct QSLing address has also been given for this call.

5. This route applies for the May 1997 CQ WPX Contest only.

Thanks go to the following contributors for this month's column: F5ATD, I2VXJ, KØBCN, W3UR, K3ZO, N4GN, KH7R, K6UR, W8CF, K8XP, K9PG, Western Washington DX Club (WAØRJY), Northern Arizona DX Association (W7YS), *Juliet Alpha Cluster* (JE1OMO), *WebCluster* (OH2BUA), *425 DX News* (I1JQJ, IK1GPG, IK1ADH), *DX News Letter* (DJ5AV), *The OPDX Bulletin* (KB8NW), *Internet DX Mailing List* (VE7TCP), *The Low Band Monitor* (KØCS), *Island/DX News* (W5IJU), *QRZ DX* (N4AA), and *DX News Sheet* (G4BUE).

During the *CQ* Worldwide DX Contest, openings on 20 Meters into Europe from the West Coast were very good, which is encouraging. I spent the contest on that band only and wound up the affair working 3V8BB. My contact a few years ago with 3V8AS is no good for DXCC, so let's hope this one works. I believe I was also the last contest contact for 3V8BB.

The best of DX to you this summer. Island chasers should be happy as those summer months bring out the activity. Check 14.260 MHz. 73 and good DX! De John N6JM **WR**

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The good guys

Robert Hall, KD5RDC

While traveling across the country this last summer, our Larson window-mounted 2-meter antenna stopped working. Although the warranty had expired long before, we called Larson to ask about it. We thought that the cause of the failure could have been a big thunderstorm while we were in Denver. They suggested that we send the antenna to them and we were hoping for a repair. To our surprise, the antenna was replaced with a new one, no charges and no questions. In this day where we often see poor service and poor quality, we want to share this story about these "good guys." We are happy to be mobiling with our Larson antenna again. —*The Spectrum,* Victor Valley ARC

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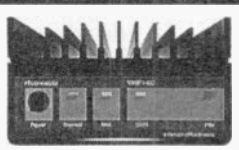

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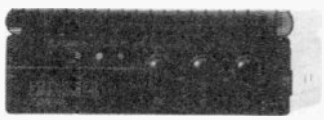

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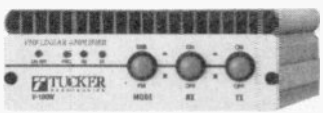

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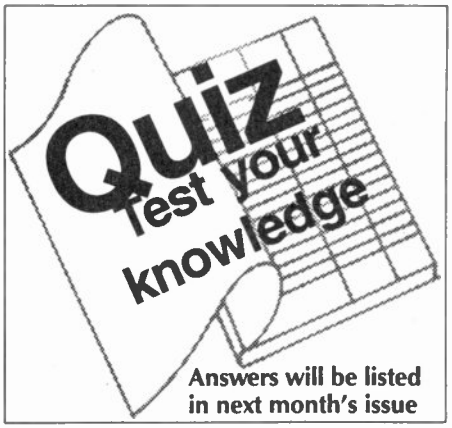

The answers for last month's quiz questions are: 205. A; 206. A; 207. B; 208. A; 209. A; 210. A; 211. D; 212. A; 213. B. 214. C; 215. B; 216. A; 217. D; 218. B; 219. A; 220. D; 221. D; 222. B; 223. C; 224. D; 225. D; 226. A; 227. D

228. What is a switching electronic voltage regulator?

A. A regulator in which the conduction of a control element is varied in direct proportion to the line voltage or load current

B. A regulator that provides more than one output voltage

C. A regulator in which the control device is switched on or off, with the duty cycle proportional to the line or load conditions

D. A regulator that gives a ramp voltage at its output

229. What device is usually used as a stable reference voltage in a linear voltage regulator?

A. A Zener diode
B. A tunnel diode
C. An SCR
D. A varactor diode

230. What type of linear regulator is used in applications requiring efficient utilization of the primary power source?

A. A constant current source
B. A series regulator
C. A shunt regulator
D. A shunt current source

231. What type of linear voltage regulator is used in applications where the load on the unregulated voltage source must be kept constant?

A. A constant current source
B. A series regulator
C. A shunt current source
D. A shunt regulator

232. To obtain the best temperature stability, what should be the operating voltage of the reference diode in a linear voltage regulator?

A. Approximately 2.0 volts
B. Approximately 3.0 volts
C. Approximately 6.0 volts
D. Approximately 10.0 volts

233. What is the meaning of the term remote sensing with regard to a linear voltage regulator?

A. The feedback connection to the error amplifier is made directly to the load

B. Sensing is accomplished by wireless inductive loops

C. The load connection is made outside the feedback loop

D. The error amplifier compares the input voltage to the reference voltage

234. What is a three-terminal regulator?

A. A regulator that supplies three voltages with variable current

B. A regulator that supplies three voltages at a constant current

C. A regulator containing three error amplifiers and sensing transistors

D. A regulator containing a voltage reference, error amplifier, sensing resistors and transistors, and a pass element

235. What are the important characteristics of a three-terminal regulator?

A. Max and min input voltage, min output current and voltage

B. Max and min input voltage, max output current and voltage

C. Max min input voltage, min output current and max output voltage

D. Max and min input voltage, min output voltage and max output current

236. What is the distinguishing feature of a Class A amplifier?

A. Output for less than 180 degrees of the signal cycle

B. Output for the entire 360 degrees of the signal cycle

C. Output for more than 180 degrees and less than 360 degrees of the signal cycle

D. Output for exactly 180 degrees of the input signal cycle

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3E1DX	KU9C	7XØAD	EA4URE
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4V2A	9A2AJ	9HØA	LA2TO
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5H3ST	KT4HC	9J2SZ	SP8DIP
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5N4ALE	DK1RV	9K2ID	9K1RA
SN8NDP	IK5JAN	9K2MU	WAJTK
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5WØNY	DJ3NY	9M2RY	N4JR
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5X1T	ON5NT	9M6TPR	KQ1F
6D2X	K5TSQ	9N1ARB	EA5KB
6K97/WFK	HL1IWD	9N1RHM	KV5V
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6O5DX	F5PYI	9Q5T	F2VX
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A92GF	EA7FR	FR5KH/J	F6FNU
AH1A	K1ER	FS9X	NØJT
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AH3C	K9UIY	H82A	HP2CWB
AH7G	N2AU	HA3O	HA3UU
AH8A	AC7DX	HB5CC	HB9BCK
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AY9H	LU3HL	HG1S	HA1KSA
BOØKS	BV2KI	HH2WL	KF6CN
BV4FH/VU	KA6SPQ	HI7V	HI7JM
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BV9AYA	BV2KI	HP1XBI	F6AJA
BW4MU	KA6SPQ	HR2A	KB5IPQ
C4ØOM	5B4AFM	HSØAC	LA7JO
C56CW/DX	DL7DF	HSØZAK	N4TMW
C56XX	GØUCT	HSØZAL	N4TMW
C6AJR/Q	DL3ABL	HS2CRU	DL2FDK
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EF1AA	EC1ACJ	KC6BP	AA8HZ
EF3KK	EC3CTS	KC6DO	JE8XRF
EM2I	UT2IA	KC6JF	KD6DTP
EØ2CWO	IK2QPR	KC6ME	JG2EBN
EP2JJ	N5BKW	K06SM	JA6EGL
EP2MKO	UA6HCW	KC6YA	W6YA
EY1ZA	W3HNK	KC7KHU	NL7TB
EY8AM	DF3OL	KG4AU	N5FTR
FG5HR	F6BUM	KH4/K1NT	JA3IG
FJ5JP	AB1U	KH7K/N2NB	NW8F

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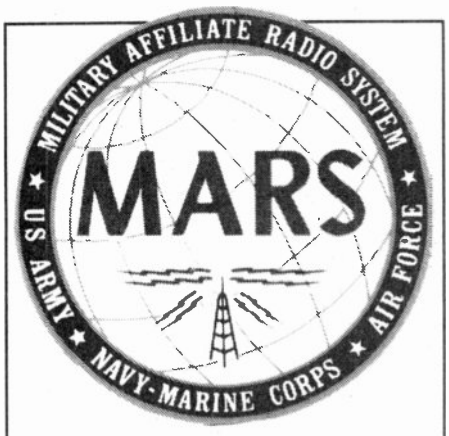

Lorraine S. Matthew, N4ZCF
MARS call AAA9PR

Past . . . Present . . . Future. Are we talking about those verb tenses we all studied in English classes? Army MARS members are talking about all the natural catastrophes that have occurred, are occurring, and will occur in the United States this year.

Case in point are the floods that have devastated great areas in many states along the northern tier of the nation.

All of them have involved Army MARS support. A fine example of this support comes in a report from Minnesota Army MARS Public Relations Officer Jay Craswell, AAV5TH.

Jay reported being awakened very early in the morning by a telephone call.

It was MN Army MARS State Director Claudine Will, AAA5MN, with a request that Jay activate an emergency net as soon as possible. "Still half awake, I warmed up my rig and started a net call. . . . Little did I know that I would be on the air for three days straight, with heavy MARS/Amateur activity for weeks to come."

This devoted donation of time in a crisis is noted in after-action reports all the time. It is typical of Army MARS members to serve long and well with sometimes crazy hours being part of the operation.

The mission for MN Army MARS was in part to support the activities of the Salvation Army. Messages were received from the Minneapolis area via the amateur 2-meter band, formatted into proper MARS format, and sent into the Granite Falls-Montevideo area and vice versa. The two-way flow of information was invaluable to the services available from the Salvation Army.

Several stations were in the flood areas and provided on-the-spot reports that relief agencies need in order to respond effectively. Jed Bendix, AAT5AQ/AAØPL took days off work and even traveled into flood areas to assist. After being cut off by flooded roads in Clara City, he determined that his best option was to operate at home, high and dry. Being mobile, Jed was often our only contact into the areas we were asked to cover.

Note, it is Army MARS policy not to request entry into affected areas by Army MARS members. This can be done, voluntarily, however, as it was in this case.

Safety concerns are paramount in all Army MARS operations policies.

Jay continues, "Requests to find coverage into the Red River flood area made us realize that the resources of our friends in the Air Force and Navy/Marine Corps MARS would be needed. Their response was outstanding. We soon had a tri-service net with many different calls from all three services. In addition, we soon had a collection of out-of-state Army MARS operators assisting us with relays and supporting our efforts. Isn't it strange how Missouri can be so effective in relaying traffic from within Minnesota?"

This multi-state support which has proved so effective in so many emergencies is the basic reason for the establishment on the new Army MARS Regional Nets. The Region Net plan has been distributed and is being established as this is written. On an informal basis, many Army MARS members have served in such nets in support of emergency operations in prior years and will continue to do so formally or informally. If there is a job to be done, MARS members will get it done.

"As the emergency progressed, the Robbinsdale ARC ARES/RACES started to get reliable VHF linking into the effected areas. They also got a 75 Meter phone net working. The MARS net was deactivated at this point. Many MARS members then assisted as amateur operators."

The MARS emergency net deactivation reflects the policy that MARS stays active until normal communications resources are restored. Typically, at this point, MARS members changed hats and continued to support emergency operations.

The present state of flood preparation is reflected in a report received from Ernest Smith, AAA8MT, who is Army MARS State Director for both Montana and Idaho. This report shows the continued preparation for additional flooding in the very areas already devastated by floods earlier this year. The flood stage potential is expected to increase with the coming of unseasonably warm weather during the spring. The snow cap which accumulated during the winter equaled nearly 200% of normal, and its rapid melting is comparable to very heavy rainfalls in constant succession.

Utah and Colorado also are experiencing dangerous melting of their equally deep snow cap. Future flooding, of course, will come as a result of the melting snow and the consequent torrents of water that cascade down the mountains.

FEMA has issued a most interesting flood warning. FEMA is concerned about the hurricane season which started on 01 June and extends until 01 November. They know what to expect in the Atlantic seaboard states and the Gulf states. Their warning is for the states that are away from those areas.

The FEMA report reads, " . . . While the destructive force of hurricane winds begins to diminish after the storm makes landfall and usually dissipates rapidly as it moves inland, the danger of devastating floods is another story. The risk of flooding can actually be much worse hundreds of miles away from the coast as the waning hurricane releases its moisture via torrential rains over a wide area."

Wherever the emergencies arise, Army MARS will be there with whatever communications support is needed. Their traditional devotion to service makes all Army MARS members . . . proud, professional, and ready. **WR**

NO, NO, THAT'S MY HANDHELD RADIO--I BOUGHT IT LEGALLY SO I COULD COORDINATE BANK JOBS WITH MY BROTHER SPIKE

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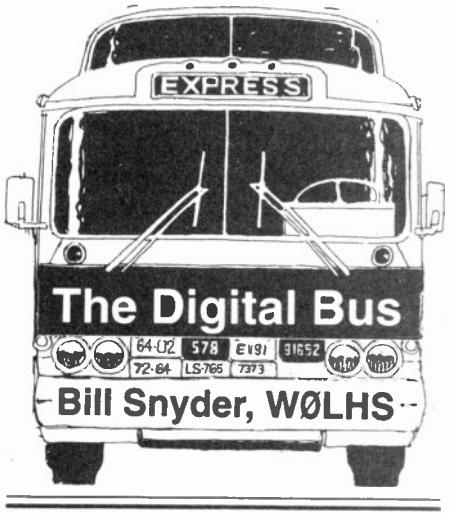

Summer is the time for school reunions; I know, I'm active in our Central High School Alumni Association, Inc. I edit our quarterly newspaper, and I am also on the board of directors, so I can tell people all the good things to do when you hold a school reunion. Whether they listen or not, I still can tell them.

I recently attended my 55th college reunion at North Dakota State University. The same weekend my son, Tom, who is a CPA in Chicago, went to his 20th college reunion at Cal Tech in Pasadena, California.

Mine was held in conjunction with the Class of 1947 who were holding their 50th, so we had a pretty good turnout as a whole. Many of those with whom we partied five years ago at our 50th were either deceased or in nursing homes, so when we posed for the 55th picture, we only filled a few steps in the front of Old Main, where five years ago we filled up a big part of a stepped mall by the Student Union. The Class of 1937 also met with us for their 60th, and they only produced three widows who posed for their class picture on the steps. The message for all folks is just this: Go to your class reunions — don't miss a one!

Besides me, only one ham radio operator, Jack Frost, W8PHG, showed up for the whole gathering. Jack and I had a good gab-fest as I used to live about three blocks from him in Fargo when we were students and active hams. In those days I would sometimes hear Jack calling CQ DX on CW. The mean streak in me would flourish and I would only turn on my VFO, zero beat to his frequency, and call him with some very rare bootleg DX call sign. I only used the VFO for power, and I didn't turn on the plate juice to the final amp, I just let the signal feed through the lit-up tubes to the antenna. So the signal probably only went a little more than the three blocks, and it sounded like DX to Jack.

I remember one night when Jack came back to a very weak signal from AC4YN (the call was then registered to a priest in Tibet) with me bootlegging his famous call with zero watts. Then, after Jack sent an RST report to me, I just let him hang, listening. In other words, I would call him and never answer his return. Jack was good at digging out the weak ones, and I was the weakest of all.

So at the college reunion, Jack, now a retired research chemist who lives in Midland, Michigan, and I had a lot of fun gabbing about the "good old days" on the air! One of the other friends we had nose-to-nose QSOs with was Gilmore Schjeldahl. Although not a ham operator, Shelley is a retired captain of industry and the inventor of machinery that seals vegetables like radishes in plastic sacks. He also had his company build those "Satelloons" that orbited the earth as "Echo One" and "Echo Two" back a number of years ago.

I was a member of Shelley's wedding party, and our families have kept in contact for the 55-plus years. So my 55th reunion was a grand gab-fest with old friends not many, but I wouldn't have missed it for the world.

Flood stuff

I guess every American followed the North Dakota 100-year flood we had this last spring. I received phone calls from all over the country during the critical days of rising water, so I know the country was watching the Red River spill out of its banks.

Our ham club, The Red River Radio Amateurs, responded as usual, to the volunteer help call in many, many ways. At the last club meeting the chief ham volunteer listed the hours our club members put in providing emergency communications to the area. The total was over 2,100 hours of dike watching, etc. The Coast Guard issued certificates to the leaders and thanked everyone who participated in the effort. It was an impressive meeting.

Our Red River usually floods a bit each spring and the club members have become well-experienced in communicating for the emergency leaders during the trying times of flooding. A lot of handhelds were chattering around the area as the river rose out of its banks. I'm proud to be a member of such a club, as they came through when we had the highest flood in the history of the area.

It all started with record snow fall this last winter. Then, after eight blizzards (normally we have only two or three), we had a really juicy freezing rain and sleet storm, followed with a 50-knot wind-blown blizzard. The wind took a large toll on those ice-covered antennas. They snapped and they crashed. All this was just a few days prior to the river going out of its banks.

To recap, it started raining during the day and then went to freezing rain at night. Everything in sight was covered with a heavy coat of ice. Then the cold front went through, the wind began to blow, and the stuff coated with ice began to disintegrate. When the freezing rain turned to snow, the blizzard was going full steam ahead.

When it was all over and people came out of their diggings, the destruction was evident. Tree limbs were down, antennas were wrecked and the streets were full of deep

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snow with a slippery ice layer underneath. It was a real storm, the ninth blizzard of the very long winter season.

Antenna destruction

I look after a traveler's advisory station on 530 kHz. That is one of those little ten-watt stations that you will find along highways telling you about traffic, etc. The ice storm and wind took the top element of our antenna and snapped it off like it was a dry stick of spaghetti. The antenna manufacturer told me they have increased the strength of the tubing in the top element, so I hope the replacement survives in any more storms. The antenna has been in use for nearly seven years, so you can get an idea of the severity of the ice and wind.

Mike Olson of Fargo, KIØE, found his quad antenna ripped to pieces by the big blow. Mike has now given up on quads because this is not the first time he had to replace the thing due to sleet storms.

Here in the Fargo area we had 116 inches of snow piled up last winter.

That was a new record. I had one drift that was up to the awning on my front window, practically obscuring our view of the street. All that snow was what contributed to the flood that devastated the city of Grand Forks, 90 miles to the north along the Red River.

Eavesdroppings

When the RTTY bands were really active for both ragchewing and DXing, I used to enjoy sitting and watching all the bon mots that were passed back and forth on my screen. I don't see many anymore, probably because the RTTY activity has decreased considerably. While looking back 10 years in my ***Worldradio*** archives, and reading what I put in the eavesdropping section of this column, I gleaned the following stuff from my old columns:

"THE JOB HERE IS AN ELECTONAUT, I FIX PASSENGER ELEVATORS . . . THE FLEA MARKET WAS A REGULAR BOAT ANCHOR SHOW . . . CQ AUSTRALIA, I'D LIKE TO WALTZ WITH MATILDA TODAY . . . I'LL WORK YOU ON AMTOR IF I CAN EVER FIGURE OUT HOW TO DO IT . . . OTH IS PISA THE CITY OF LEANING TOWERS . . . RUNNING 50 WATTS BARE BREASTED . . . HAVE A NICE WEEKEND STARTING WEDNESDAY . . . RTTY IS GREAT BECAUSE I DON'T NEED MY HEARING AID . . . ALL THE BEST FROM THE WORLD'S LARGEST AND OLDEST FOSSIL FIELD . . . THE WEATHER IS SO DRY HERE THAT BULL FROGS THAT ARE THREE YEARS OLD DON'T KNOW HOW TO SWIM YET . . . MUST QRT AS THE LIGHTING IS ONLY A BLOCK AWAY NOW . . . AGE IS 32 AND WOULD LIKE TO RETIRE IN ABOUT FOUR YEARS . . . KEEP YOUR ANTENNA COOL AND DRY . . . I'M HONORED TO WORK YOU, HOPE YOU WILL HONOR ME WITH YOUR QSL CARD . . . I HAVE COMPLETED MY DOCTORATE IN MEDEEVIAL STUDIES AND HOPE I CAN LEARN TO SPELL IT ONE OF THESE DAYS . . . YOUR SIGNAL IS 599 HERE IN THE WETT INDIES . . . THE SKYWIRE HERE IS A MUSHCRAFT BEAM UP THREE RODS . . . IN MY HOUSE THE WORD "HONEY-DO" IS AN ORDER NOT A REQUEST . . . I HIT THE WRONG KEY ON THE KEYBOARD AND DUMPED MY MUFFER . . . I DON'T KNOW IF IT IS OHM'S LAW OR MURPHY'S LAW THAT IS THE SOURCE OF MY TROUBLE HERE . . . YOU ARE LUCKY YOUR RIG IS IN YOUR BEDROOM, MINE IS RELEGATED TO THE BASEMENT . . . I AM RETIRED BUT NOT PUTREFIED YET . . . I CAN TYPE 70 WORDS A MINUTE AND THAT KEEPS ME AHEAD OF THE KEYBOARD BUFFER TILL I HAVE TO BACK SPACE TO CORRECT AN ERROR—WHICH IS ABOUT EVERY OTHER WORD . . . I WAS HIT BY A DRUNK DRIVER WHILE I WAS IN THE SAME CONDITION . . . I USED TO HAVE A BBS ON THE AIR, BUT MY HARD DRIVE WENT SOFT AND DIED.

I no longer have a BBS in operation, so if you wish to communicate with me write Bill Snyder, 1514 12th St. S,, Fargo, ND 58103-4134. One of these days I will have an e-mail address, but until I do, 73 and DIT DIT as we say at the end of a CW QSO. **WR**

Lower cost U.K. exams

The United Kingdom's Radio Authority and its City and Guilds testing facility have jointly announced that they are simplifying the format of the Radio Amateurs Examination. They say that this will result in reduced fees and faster results. The cost of the revised examination will be 26 pounds, down from the 38 pounds presently charged. —*via RSGB*

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The guest spotlight

Lots of 6-meter DX stuff this month, but we begin with two items that should be of interest to most FMers and repeater users. The first, dealing with the psychology of jammers and jamming, comes directly to us from Bob Reed, W2CE in New Jersey. It is followed by a very interesting dissertation on simplex (direct) communications, sent to us by numerous readers who originally found it posted to packet. It was written by James Mac Murray, N2UZQ. I hope that you will enjoy reading both, and your comments are welcome.

Bootlegging, jamming and personality problems

By Bob Reed, W2CE

Bootlegging and jamming on repeaters is a very interesting subject. Not all jammers are unlicensed. Over the years many have been determined to be disgruntled club members. Others have taken objection to the activity of some operators. (Ed note: Still others have openly admitted that they feel FM and repeaters are not Amateur Radio and if the FCC won't stop them that they will.)

If a bootlegger has seen fit to assume your call . . . or make trouble for you, my first thought would be to wonder what type of activity you performed that made your call stand out to him. Unless he's a personal friend with a warped sense of humor, almost all jammers caught have had specific reasons for attacking the person they have chosen to attack. (Ed note: this is *not* an attempt to place blame on the victim!) So, too, for particular repeaters.

A club I was in on Long Island spent over 20 years without jammers of any sort, and this within HT range of NYC. We had a group of members who actually rang doorbells and knocked on windows of jammers all through the '70s, so we were a group not to tangle with.

In 1984, one of the club officers spending, admittedly, all too much time on the repeater started an argument questioning a YL's license. One person defended her and a real battle ensued. The two people battled so grievously because of the personality of one, that *both* were jammed off the repeater unmercifully. As a club officer and one of the "jammer hunters of old" I identified several of the jammers. All were members of the club who were trying to run both of the battling users off the air.

Well, the one who was an officer gathered a following and voted the other out of the club. Quite a legal thing to do, but the . . . fury . . . of many . . . didn't stop jamming the officer until all the NYC jammers took over, and the repeater has became useless. It remains that way now thirteen years later.

After 20 years of no jamming, give people a reason to dislike you and the world descends upon you. And what is left ? Even with modern technology such as Doppler scanners and transmitter fingerprinting, the jammers are not being caught (or cited, or prosecuted) as in the past.

Repeaters are too easy to attack. If you can't solve the problem as to why the jammers have made their attack, then you can forget about the repeater ever being clean.

Repeaters vs. simplex ??

By James MacMurray, N2UZQ

A friend and I were talking the other day at our local Amateur Radio meeting. We've had many interesting conversations and one kind of stuck in my mind. It seems that the 2-meter frequencies are getting more and more populated. The thing that strikes me as odd is that no one uses simplex.

A friend was driving north for the weekend to do some fishing. Well, he had been listening to the local repeater for about an hour and a half and heard no activity. He decided to drop his call sign in to see if he could find someone to chat with on his way to the lake. He found a person who was from down state who was vacationing in the area where he was headed. They had a nice QSO for about two and a half minutes when someone decided to ask for a "call."

It seems the caller found that his new HT could do a page with the DTMF pad, and he wanted to try it over the repeater. Another person jumped in and tried to tell him that it wasn't a very good idea, that it might foul up the repeater. They offered to help by telling the caller to try it on simplex.

The caller was insistent on trying it on the repeater. This went on for about 10 minutes. My friend decided to try and contact the person with whom he had been in QSO. He asked for a "call." They gave him the call — reluctantly, as if he was interrupting a QSO.

Needless to say, the person with whom he had the QSO was so disgusted with the whole thing that he had turned his radio off.

Here is the kicker of the thing — the three or four people who got into this great discussion about the HT were all within a 5-mile radius. They could have all used simplex, whereas my friend and the person he was talking to were about 75 miles apart. They should have either moved to another repeater, or gone to a simplex frequency.

It seems that the only time the simplex frequencies are used is during contests. Everyone participates. Everyone knows how far their radios can transmit and receive. What would happen if your local repeater went down? Could you live without it? If you need the repeater, use it. If you don't, go simplex. Trust me, I do a lot of simplex work, and you wouldn't believe the fun you can have.

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The system call sign is KF4KVE and it has excellent coverage. There are no access tones needed. The repeater is located just north of Warner Robins and is about 4 miles due east of I-75. It offers emergency auto patches and a net on Tuesday nights.

KC6WFS's 6M AM web page

A few months ago we began what I call "the great experiment" to prove that anyone with about $20 in their pocket can enjoy working DX on 6 Meters. The $20 is used to buy an old but working, 6-meter AM transceiver at some local flea market or hamfest.

There are tens of thousands of such rigs languishing in closets across North America. At least once a year the present owners cart them out to try and rid themselves of them. And this summer, today's hams are buying them, plugging them in, hooking them to a simple home-made dipole antenna and learning that DX on 6 Meters is not mode dependent.

Indeed, this has shaped up to be one of the best 6-meter DX seasons since the late 1950s. One need only glance at the VHF Reflector to see that hams world-wide are working double-hop E and some F2 contacts on the 50 MHz band. Messages like these are very common these days:

Subj:7Z5OO 6 mtr
Date:97-05-30 22:45:52 EDT
"Hi All
I briefly 'talked' to 7Z5OO on 21 MHz CW and informed him we had a terrific opening into the Middle East today and wondered what he had heard. He replied he was listening on 50110 CW daily between 0900 and 1200 UTC and had so far worked 2 stations, one being 9H1AZ.
73, Frank, PA3BFM"

And thanks to the "great experiment" there are many who are doing it on a shoestring. The simple fact is that DX is not mode dependent. A signal does not care if it's CW, SSB, FM, AM or data. If conditions are right, it will be heard. With rigs like Heathkit Sixers going for about $10 and Lafayette HE-45s, HA-460s, Utica 650s, Clegg 99ers coming in at $20 — all complete with microphones and crystals — it's not surprising that the resurgence in low-cost AM 6-meter DXing started on the reflector and in this column have taken hold.

6M AM page

Now my friend Dave Booth has added another element — the Internet.

Dave has created what he calls the 6-meter AM Page on the world wide web to give 6-meter AM DXers a place to swap information and tales of glory. Dave's special page is located at

http://www.geocities.com/Hollywood/5360/50am.html. If you are considering a budget 6-meter DX station, take your browser over there and prepare to get excited. E-mail for Dave Booth goes to booth@pactitle.com.

Inexpensive 6M AM transceivers

On his site, Dave says the following: "Many of you have written or e-mailed us for information on what I mean by a $20 AM 6-meter transceiver. Others have questions pertaining to a particular piece of equipment. I do not have the time to answer each of you individually so I have compiled a short list of readily available and super-cheap meter gear.

"The $20 is a good starting point for bargaining. You may have to spend a few more bucks than that, but not much. If you run into someone who thinks he is selling precious collectors items, walk away — unless you, too, are a collector.

"Keep in mind that equipment over thirty years old may require some service! Remember that these radios operate with very high voltage (some up to 450V DC) on the tubes — so do not play around inside unless you have experience in working with tube-type equipment. One wrong move can kill you! If you do not know what you are doing, keep both hands in your pockets and the radio unplugged when exploring its innards.

Oldies but goodies

"Clegg 99er (1960) Double conversion superhet, 7 watt Xtal Xmit. Will take VFO

Gonset Communicator I (1955) superhet rcvr - 7 watt Xtal transmit - VFO optional

Gonset Communicator II (1957) See above - 5 switch selectable XTals or VFO option

Gonset Communicator III (1959) restyled Com I with S-Meter replacing eye-tube tuning

Gonset Communicator IV (1960) low-profile and new low TVI transmitter.

Gonset G-76 (1961) HF radio with 6 Meter coverage. A real performer with 40 watts out."

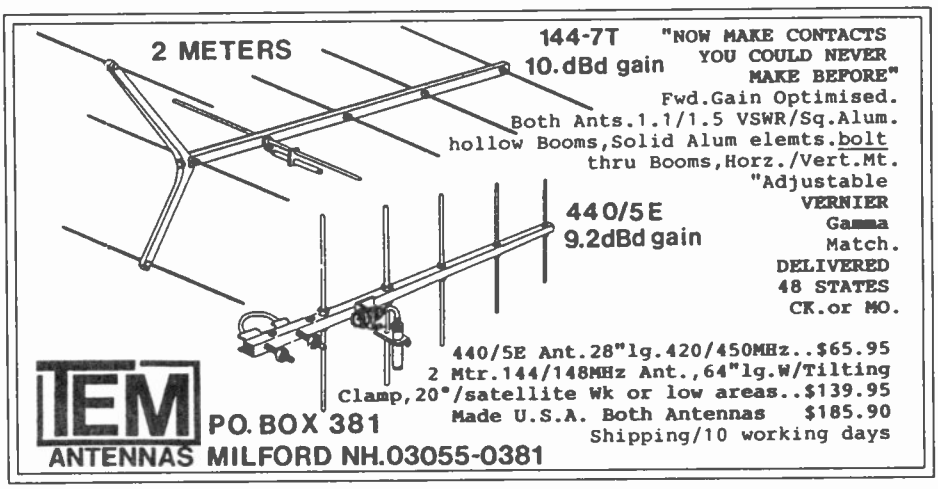
That is just a small selection from Dave's web site.

New SMIRK Reflector

With 6 Meters quickly becoming a DX band of choice, a new 6 Meter reflector is also available on the Internet from the Six Meter International Radio Club — SMIRK. This reflector deals with any questions about SMIRK and the SMIRK web site, or to make skeds with other SMIRK members. To subscribe, send e-mail to majordomo@qsl.net. In your message text type only the words "subscribe smirk" followed by your e-mail address. Then sit back and wait for the mail to come to you.

New 10 GHz beacon

Ed Larsen, KI7WB reports that a new 10,368.310 MHz +/- 15 kHz beacon is on-the-air from CN94MK. It's at 6,000 ft., 100 mW into a 17 dBi horn aimed south west, with horizontal polarization and 24 hour a day operation. The antenna system will be improved later. For more information send e-mail to ED, KI7WB@ Juno.com WR



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Search And Rescue Communications

Jerry Wellman, WB7ULH
P.O. Box 11445
Salt Lake City, UT 84147
E-mail: jw@desnews.com

Are you having fun?

Seriously, are you having fun? Amateur Radio (for most, I hope) is a hobby. There is a fair amount of "work" related to putting up antennas, repeaters, towers, building equipment, or installing equipment, but we do it because it is fun. Your definition of fun will differ from mine.

For example, there are several local operators who define fun as building repeater networks or maintaining a repeater site. These folk seldom get on for a ragchew, but enjoy the heck out of others enjoying using their repeater or network. Others of us enjoy doing public service more than a ragchew, some enjoy just listening, and others enjoy building kits and projects from the electronics magazines.

Whether it is building, listening, or talking, this hobby should be fun. I chatted with a fellow last week who has spent countless hours on the air, building a nice station, and made thousands of contacts via Amateur Radio. He said his day was never complete until he had talked with at least two other stations. He worked hard to earn his Extra Class license.

He is now selling everything and is giving up Amateur Radio completely – that's why he and I talked, I was answering one of his "for sale" advertisements. As we chatted, I asked why he was pulling the "big switch" for good. He simply said, "It isn't fun any more." He said he had done it all and there was no challenge left.

Where's the Challenge?

Wow! I thought, could that be happening to others? The key to my enjoyment of this hobby is the challenge. It was fun building the first dozen or so j-pole antennas, but I now struggle when I want to build one. There's no challenge in digging out all the tools and soldering some pipe together. It's fun showing someone else how, but only for the first one or two. Beyond that, the challenge is not there to build free antennas on demand. So where is my "challenge?"

One of the reasons I enjoy public service is the challenge of something "new" each time the call comes. The search is seldom in the same terrain (it would be nice if planes always crashed in the same spot, but they never do). The disasters change with the season, and it's usually something different, or in a different place.

I've also become somewhat of a rebel when it comes to any volunteer organization. Some formal structure is good, but when most of your effort is spent on the "structure" and not doing what you're chartered to do, it's not fun any more (no challenge). Maybe it's living in the "west" and the "cowboy" blood I'm sure I have being a Wyoming native, but I sure resist meetings, paperwork, and looking busy so someone else will look good. If there's something to be done, let's just do it quickly, safely, and enjoy it. Sure, there's value in paperwork, form, and procedure – just don't get carried away to where that's all you do.

I'm in this "hobby" because it's hands-on and I get to do what I define as fun. Whether it is Amateur Radio, ARRL, Civil Air Patrol, or a community emergency response team, it's fun when you do what the organization exists to accomplish. If the group exists to find missing planes or provide emergency communications, the fun (i.e., challenge) is that you do it more than you do all the other "stuff" (paperwork, meetings, paperwork, meetings, paperwork, meetings – you get the idea).

Keep the vision

When you lose the vision of why you got into this hobby, it's not fun any more. I hope each of you knows what makes this fun for you. Don't lose this vision. Don't create an organization that is so bogged down in procedure that you've no time or energy to tackle your fundamental mission. When this happens, it's more fun doing something else.

This thread also parallels my concern for Civil Air Patrol (CAP). Once a proud organization, CAP for many has become an elite flying club. I lament the fact that in many states the CAP is no longer looked upon as a SAR organization. Many youth leave within their first year after discovering the CAP cadet program looks great on paper, but is lacking in leadership and filling recruiting promises.

Where CAP once was a recognized source of SAR training and technique, other groups such as the National Association of Search and Rescue and the Emergency Response Institute are offering current search training and certification. A writer called me last month asking for an opinion. His article addressed how to improve the chances of rescue in an aircraft crash. His opening statement was "General aviation can no longer depend on CAP to quickly find crash survivors." It's a sad commentary on a once stellar group.

My advice to any volunteer group is to follow good business practices. What keeps a business profitable is attention to customer and product. When a business (or group) does not continue to focus on customer or product it will eventually falter. When a business is making money, there is a reason customers are willing to purchase a product. Indifference to customers and poor quality products seldom result in long-term profit or business viability.

Volunteer groups (such as CAP, ARES, SAR, etc.) have two customers — their own members and the people they serve. The product is

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service and member satisfaction. It's your members who provide service to the public. If the structure (essentially command) drives away experienced members, the public service suffers. Without any public service missions, the group will not attract and keep quality members.

I've said it before. Treat your members as if you don't want them, and they'll go away. A thrilling legacy will only attract new members. A quality program will keep them. If you're always training new members, it's time to see where all the trained ones went and why they went away.

A good thing to remember is that organizations don't do anything, people do.

Rehab your members

The scanners came to life early one morning and a multiple alarm fire was dispatched. The chief arrived, quickly set up the incident command elements, and the battle began. One thing the chief set up was a "rehab sector." What's a rehab sector you ask? It's the on-scene "break room."

If the weather is bad, the "rehab sector" will be a warm or dry spot sheltered from the storm. If it's hot, the unit will have ice water and shade. If someone is hurt, the rehab people will take care of injuries. It's the place where you, the on-scene commander, ensure your own people are taken care of.

As a commander, the safety and welfare of your people is a primary concern. You must be aware of the situation, your people's limits, and provide a place for recuperation and care. If the scene is a mass casualty incident, it is imperative that your people are provided stress debriefings and associated care. This was one of the primary concerns of the "rehab sector" at the Oklahoma City federal building bombing.

Often the incident commander or team leader must direct his or her people to rehab. As public service teams, we often try to go beyond our limits. If your commander is paying attention, you'll be sent to rehab so you don't over do it, and become a casualty yourself.

Some issues concerning volunteer responses and rehab sectors include having something planned. It may be a quick trip to the local convenience store for some energy food. You may need to have your people get under a tree for a 15-minute break. If it's a complex event, work with other agencies and perhaps you can make use of another department's rehab sector.

". . . move your people into the rehab sector BEFORE they need to be carried there."

If you re in charge and very busy directing events, designate either your safety officer or a rehab officer to monitor your member's involvement. Depending on the assignment, the weather, the stress, and the situation, move your people into the rehab sector BEFORE they need to be carried there.

Another thought is to have a mobile rehab sector for some events. I'm thinking locally of our ARES involvement in local parades and hot summer weather. A traveling rehab officer with ice, water, and pop would be in order. It might also be good to have an extra operator you could rotate around to various posts should the need arise. Anyway, it's a thought and an issue you should be planning into your next event or response.

Battling burnout

Volunteer burnout happens. We're not so eager to climb that tower or get up and head to the next callout or exercise. Here are some ideas to help if you've lost that get-up-and-go you once had.

First, take a breather. You can only push so long before you've given all you have to give. Take a couple of giant steps in another direction and get a different perspective. Second, get those creative juices flowing. Seek out a different aspect of Amateur Radio or search and rescue. Learn about a more technical element and become an expert in that new area. Challenge yourself and get outside your comfort zone. When you push your own limits, you'll create your own motivation and drive – keeping you involved and interested.

One of my solutions is to explore what got me interested in SAR or communications in the first place. There are some particular elements that are fun for me to do and keep my interest focused. Some times you just "gotta" do what you enjoy. A little fun goes a long way to prop up some sagging attitudes.

Speaking of fun

This has nothing to do with SAR, but how about a WaC contest? It's a "worked all columnists" event and I'm sure publisher N6WR would pony up something nifty if you manage to get a QSL card from all of ***Worldradio's*** columnists. We would have to substitute an editor or an associate editor for Sterba, but hey, it could be done. Packet could count for a columnist that isn't on HF, but you'll have to discover which ones qualify.

How about it folks!? This summer I'll be on the air from several Scout camps and will be on 40, and 80 Meters most Friday and Saturday nights from about 7 until 9 p.m. MDT. It's my way of looking for fun as I enjoy exchanging QSL cards and talking. I don't do as much of that as I once did, so I'm re-discovering one activity that lured me into the hobby.

See you on the upper end of 80 and 40! Have a great summer. Keep involved, keep it fun, rewarding, and safe. Best wishes from Salt Lake City! **WR**

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C.H. Stewart, KD5DL
P.O. Box 181
Duncan, OK 73534

BASIC Line Losses, Part II

If you're a stickler for perfect 1:1 SWR, then here's something from the *ARRL Antenna Book* you might find interesting:

"Any line used to feed an antenna will have no standing waves along it if it is connected to the antenna at a point where the impedance is resistive and matches that of the line. This is normally impractical . . . (since) the line usually operates with some standing waves on it. This is of no particular disadvantage if the line is not more than several wavelengths long and the standing-wave ratio is not higher than about 10-to-1."

The reference is from the first edition of the *ARRL Antenna Book* published in late 1939. In those days coaxial cable, which they called "concentric" line, was an experimenter's plaything, and transistors weren't yet invented. "Any line," to the writer, meant any of the popular feed lines of the time, which were primarily parallel "open wire" feeders.

In our last column we covered losses in coaxial lines and how SWR affects those losses. This time we'll look at open-wire feeders, and we'll modify our last BASIC program a little so it can give us an idea of how any transmission line, coax or open wire, performs as it transfers power to an antenna.

Open wires

Technically, open-wire line consists of bare parallel conductors separated only by air. Although open-wire lines are no longer being commercially made, some amateurs continue to make their own. The line's parallel conductors are most generally separated from each other every foot or so with plastic, ceramic or wood spacers. The spacers make the line look something like a ladder, hence its generic name, "ladder line."

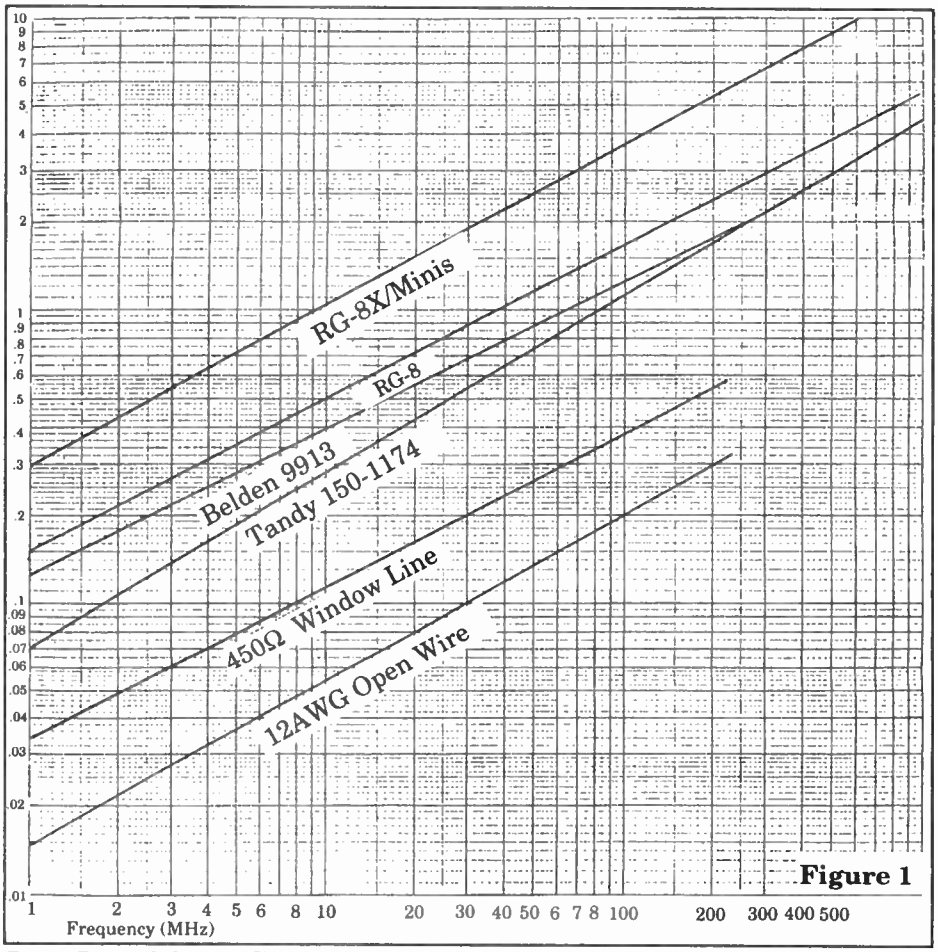

Figure 1

Low Loss Lines. Chart shows how several low-loss transmission lines compare. Attenuation values are in dB per 100 feet.

Traditional ladder line has, in recent years, been replaced by "window line," an approximately 450-ohm twin-wire line that has its conductors separated by a polyethylene insulation with rectangular "windows" punched in it. The windows

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World Radio History

```
 10  CLS: RESTORE: PRINT "COAX LOSS, BY KD5DL, 8/97": PRINT
 20  DATA 3.5,30.1,-126.8,3.55,32.1,-102.7,3.6,34.3
 30  DATA -78.7,3.65,36.6,-54.7,3.7, 39, -30.6,3.75,41.5
 40  DATA -6.7, 3.8, 44.2, 17.5, 3.85, 47.1, 41.4,3.9,50.1
 50  DATA 65.6, 3.95, 53.3, 89.7,4,56.7,113.7,9,0,0
 60  INPUT "CHARACTERISTIC IMPEDANCE ";Z0
 70  INPUT "LINE LENGTH, FT ";LL
 80  INPUT "ATTENUATION dB/100 FT ";D: A=LL*D/100: PRINT
 85  PRINT "FOR 100 WATTS INPUT POWER:"
 90  PRINT " FREQ     R      X     SWR(i)   SWR(a)   PWR OUT
     dB"
100  READ FREQ,RL,X: IF FREQ+9 THEN END
110  B=((RL+Z0)^2+X^2)^.5: C=((RL-Z)(^2+x^2)^.5
120  E=(B+C)/(B-C): F=10^(A/10): G=(E-1)/(E+1)
130  H=(F+G)/(F-G): REM SWR AT INPUT
140  K=2.718^(-.46*A): L=2.718^(-.23*A): M=G^2
150  N=100/(1-(M*K)): P=((1-M)*L*100)/(1-(M*K))
160  S=4.343*LOG(P/(100/F))
170  PRINT USING "###.##   ####.#   #####.#   ###.##   ###.##
     ###.##   ###.###";FREQ,RL,X,H,E,P,S
180  GOTO 100
```

Figure 2.

help the line perform in a manner similar to open-wire line, even though there is some dielectric loss due to the relatively large polyethylene web.

Strictly speaking, window line and ladder line are not exactly the same things, but according to Press "The Wireman" Jones, the terms "ladder line" and "window line" are now treated in the amateur vernacular as being virtually synonymous.

While ladder line has a dielectric that is mostly air, window line's is mostly plastic. Press suggests calling the window version "window type ladder line" to avoid confusing it with traditional open-wire feeders. Another writer, Doug DeMaw, W1FB, calls it "molded plastic ladder line" for the same reason.

Another open-wire line, one we are all familiar with, is TV twin-lead, sometimes called "ribbon line." It's like window line, but without the windows. Its solid dielectric contributes more to line loss, but because the web is relatively thin-walled, the loss is minimized. Some thicker "all-weather" lines keep their conductors within a low-loss foam-filled shell to minimize losses.

While its manufacturers insist it is rated for reception only, amateurs long ago realized that TV twin-lead could handle transmitter powers up to a kilowatt or so. Lew McCoy, W1CP, former technical editor for *QST* and now technical representative for *CQ Amateur Radio* magazine, cautions that at these power levels the line's insulation may melt, or even catch on fire.

At power levels of 250 watts or less this shouldn't be a problem.

One of the major drawbacks of twin-lead line is that its attenuation value increases when it gets wet or is otherwise contaminated.

While wet-line attenuation is a definite drawback, Tandy's 150-1174 Indoor/Outdoor twin-lead claims to have the same low attenuation factors when wet as it does when dry. Channel Master's Polyfoam Jumbo, which loses a little signal when wet, is still better wet than dry RG-8 (according to each manufacturers' data). See Figure 1.

Wet-line attenuation can be minimized by keeping the line's polyethylene web clean and dry. Periodically buffing it with wax, for example, may minimize losses and prolong the life of the line.

Wet or dry, open wires may be your ticket to maximum radiated power. This month's BASIC program can show you how (see Figure 2).

The DATA lines are for an 80-meter dipole 40 feet above ground at my QTH. If you have access to an antenna modeling program, such as NEC, EZ-NEC, MININEC, etc., try using it to model your own data. Or use an antenna analyzer or noise bridge to determine your antenna's actual performance.

The first of each three numbers in the DATA lines is for a frequency, the next is for radiation resistance and the third is for reactance. The numbers follow DATA as FREQ, RL, X, (FREQ, RL, X, FREQ, RL, X . . . etc. In my example, line 20, 3.5 is the frequency, 30.1 is resistance, -126.8 is reactance, 3.55 is the next frequency, and so on).

If you lack any data at all, use the numbers published in our June column. They won't be identical to those at your installation, but they will show some comparisons you should find interesting. Later you may be able to better test or model

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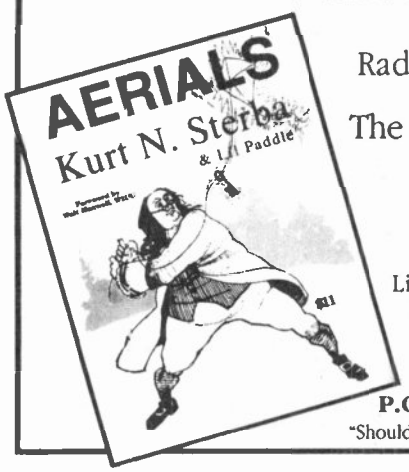
AERIALS



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World Radio History

your antennas and can update your findings then.

What you'll see when you run the program is:

Input SWR — Usually a concern for users of modern rigs because too high an input SWR usually causes a sensing circuit to lower the operating current to the final amplifier (thus lowering output power). By using an antenna matching unit (tuner), you can ensure that the rig will see a 50-ohm resistive load and will transfer its maximum power through it to the load.

Antenna SWR — The degree of mismatch between the transmission line and the antenna. Usually a high SWR at the antenna is not a problem unless the line is very long and lossy (as with some coax cable). Fast-scan television users will also find that high SWR causes image ghosts.

PWR OUT — Antenna power is shown as actual power delivered to the antenna (for every 100 watts of input power) based on line attenuation and any SWR on the line. (If you're not running exactly 100 watts input, this figure will be a percentage of the power you are using).

dB — The real telling of bandwidth effectiveness. The dB value shown is the value of actual output power compared to the maximum possible transfer power. In other words, the dB value is the comparison of how another station can hear your actual signal versus how it could hear your best possible signal on the same band. As you study the results, you will see that bandwidth has a fairly insignificant relationship with SWR.

For instance, if I were using 100 feet of RG-58 (53.5-ohms characteristic impedance and 0.7 dB attenuation per 100 feet), stations listening to my 80-meter signal would not be able to tell any difference in signal strength for transmissions in the 3.6 to 3.98 MHz range. Even though my input SWR might be as high as 3.9:1 at those limits, an operator with a good ear would probably not notice any signal fall off until I went below 3.6 MHz.

If I were using the same length of 300-ohm TV twin-lead, I could hop around in the entire band without anyone being able to hear even the slightest change in signal strength. In fact, sensitive measurements would show my signal to be stronger than if I had been using RG-58 coax, even though my input SWR would never fall below 5:1!

With 450-ohm window line it would sound virtually the same, even with an input SWR greater than 14:1!

Amazing? Maybe that's why so many amateurs are looking once again to open-wire and window-line feeders.

If you're concerned about the high SWR at the rig (because of possible damage to the final stage or reduced power due to the rig's SWR sense circuit), then use a balanced-line antenna matching unit (tuner). Almost any antenna book will have instructions on how to build one, or purchase one from one of several manufacturers.

You should, however, stay away from baluns unless you thoroughly understand how and when to use them. The impedance at the end of a 450-ohm line connected to a dipole, for example, can range anywhere from less than 50 ohms to more than 5,000!

If you think you might like to experiment further with open wire lines, consider giving Press Jones a call. Not only does he supply a complete line of wires, cable and baluns, he stocks virtually anything one would need to make open-wire and coax installation safe and easy. He also sells a very informative $3 *Wirebook* with 60 pages of wire information, hints and history. For more information write him at: The Wireman, 261 Pittman Road, Landrum, SC 29356, or via e-mail at n8ug@juno.com.

That's it for this time. Until we meet again keep your losses low, and stay radio active! WR

QRM along the border with Mexico?

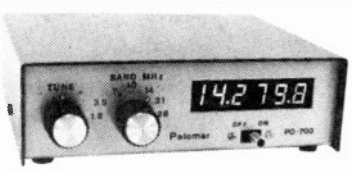
If you live near the border with Mexico, operate packet radio, and are experiencing problems on with high noise levels, this might help you understand what is going on.

According to a posting on the VHF Reflector, it appears as if there is a C-130 or similar electronic surveillance aircraft that flies along the Texas-Mexico border, looking for drug smugglers. It also seems that there are times when surveillance from the aircraft switches over to the 440 MHz Amateur Radio band!

What the government observers do not seem to understand is that the Amateur Radio community knows when they are listening in. The amateurs know it because the government's electronic surveillance system creates so much QRM, that their transmissions take out the entire TexNet network starting at Austin and going south. If the band is open, it takes out the entire network in Texas, and north up and in to southern Oklahoma.

The signal is not potent enough to get into most voice repeaters, but it does bother the 9600 baud packet modems in the TexNet system. They have many problems in the presence of high ambient band noise. Most of the time the operators just can't connect to each other when the airborne signal is operating.—*via VHF Reflector*

DIGITAL FREQUENCY DISPLAY



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World Radio History

WITH THE HANDI-HAMS

Sister retires!

Patrick Tice, WAØTDA

Sister Alverna O'Laughlin, WAØSGJ, retired from the Courage HANDI-HAM System at the end of April. Her sudden departure took many by surprise because she had returned to work on a part-time schedule following an auto accident in May of 1996, and had intended to return to full-time work. Her severe injuries in the accident, followed by complications during the healing process, kept her from resuming the full-time schedule at Courage Center that she had maintained the previous 15 years.

"I just want to concentrate on getting well!" said Sister, explaining her decision.

Indeed, WAØSGJ is planning on walking again this summer, after months of physical therapy — the same therapy she has helped others through over the years. Those of us who know Sister personally know that she will make good on her plan!

Sister Alverna has worked at Courage Center for 16 years, serving as Educational Services Coordinator in the HANDI-HAM Program. However, Sister's association with the HANDI-HAM System goes back much further than that — she was one of the original member/volunteers when Ned Carman, WØZSW, founded the program in 1967. Sister was first licensed in 1967 as WNØSGJ, and now holds an Advanced Class license. She is an active Amateur Operator first and foremost, always toting her rig somewhere and making many contacts. Sister is a veteran of many ham radio-related road trips, made for the sole purpose of making mobile contacts. Her operating expertise is well-known, and she has a keen ear for picking call signs out of the static and QRM that typically plague mobile operations!

Through the 30 years that WAØSGJ has been in HANDI-HAMS, she has helped thousands of newcomers along the path to their licenses, all the while remaining a very active amateur. Sister has a special love for county hunting, and has worked all counties. Now WAØSGJ is a "wild card" for county hunters with similar aspirations, and her call is much sought after as she works HF mobile on her auto trips across North America. She has received the *Humanitarian Award* from ARRL for her good work with persons who have severe physical disabilities and sensory impairments. Sister is active in YLRL and The 33s, a regional YL group. She is a long-time member and strong supporter of the ARRL.

Sister Alverna O'Laughlin, WAØSGJ

Retirement will not keep WAØSGJ off the air! Plans are being made to install her HF and VHF rigs at her new QTH in Rochester, Minnesota soon after she moves there from the Twin Cities. When her packet station is on the air in Rochester, this column will post her packet address.

In the meantime, if you have Internet access, you may drop Sister a line at: waøsgj@juno.com.

Join Sister Alverna, WAØSGJ, on ACTIVIDAY! Sister will be operating HANDI-HAM HQ station WØZSW.

Actividay! Celebrating 30 years of Courage

Date: 30 August 1997

Time: 1200 UTC (7 a.m. CDT) until 2400 UTC (7 p.m. CDT)

Who: All Amateurs are eligible to participate. Single or multi-op permitted.

Suggested frequencies:

	CW	SSB
40M	7100-7150	7250-7280
20M	14025-14100	14270-14300
80M	3675-3750	3875-3950
15M	21025-21200	21350-21400
10M		28300-28500

Log to show:

Date, time, station worked, op name, QTH, frequency, type of emission, power, their RST, your RST, HANDI-HAM member "yes" or "no."

Scoring: 5 points for contacts with HQ station WØZSW and/or camp station WØEQO.

2 points for contacts with HANDI-HAM member.

1 point for contact with non-member.

Same station may be contacted only once on each band.

Submit log:

Have total contacts made. Show total points claimed. Your name, address and call sign. Are you a HANDI-HAM member?

Awards:

First prize of a HANDI-HAM mug with logo goes to the station with the most total points. All participants who send in the paperwork will receive a certificate. Send a 5" x 7" SASE with log.

Submit to:

Jim Whittaker, WBØTVL (Certificate Custodian), 3019 O'Henry Rd., Brooklyn Center, MN 55429-2220. WR

2000 BUCKS WORTH OF MOBILE GEAR IN THERE AND SHE LEAVES THE WINDOW OPEN IN THE CAR WASH!

World Radio History

10-10 INTERNATIONAL News

Chuck Imsande, W6YLJ
10-10 19636

10-10 at Dayton

10-10 was at the Dayton Hamvention, as usual, with a good number of 10-10 members in attendance. For a change we had great weather, a little on the cool side, which was appreciated. The 10-10 forum was held in a local school not far from Hara Arena (with free bus service) and was attended by close to 40 members and non-members. Director Linda Barnes, KJ4FM #43299, conducted the forum, with support from President Tom Henderson, K4CIH #33233, and Vice President Chuck Imsande, W6YLJ #19636. As is customary, many of the 10-10 members were lodged at the Day's Inn in Brookville, OH. This is only a short drive from the Salem Mall where free bus service to the convention arena is available on a continuing basis. Again this year the meeting place for 10-10 members was in the convention cafeteria, where there was a lot of talk about the lack of propagation on 10 Meters, and the exchange of 10-10 Chapter lists.

A 10-10 net was held on Saturday evening at the motel with about 20 check-ins. This year for the first time there were no 10-10 check-ins from other parts of the country — no band opening. If you have never attended the Dayton Hamvention, you should consider attending next year. You will be surprised to find somewhere around 30,000 all in one place. Give it some thought and plan to attend and join the 10-10 gang at the Day's Inn in Brookville.

W6OI on the air

The 10-10 club station, W6OI # 109, will be on the air every Wednesday. Louise Chapman, N6ELK #36654, has volunteered to be the 10-10 Net Control Operator for W6OI #109 on a trial basis. This will make each Wednesday beginning at 1800Z on 28.800 MHz a very special event. Please include an SASE when requesting a W6OI QSL card via N6ELK, 3210 Clark Ave., Long Beach, CA 90808.

New QSO Party Brochure

A new 10-10 QSO party brochure ("party" being another name for "contest"), has been produced in an effort to clarify the rules and procedures for operating the 10-10 QSO parties. This 6-page brochure includes all of the information needed to participate and correctly submit your log to the scoring chapter. Included is a copy of the latest rules for the regular CW and SSB parties as well as the special rules applicable only to the 10-10 Day, a 24-hour, all-modes Sprint held each year on 10 October.

A copy of the official cover sheet required for submitting your log, as well as a dupe sheet, are also included. A dupe sheet is required for all log submittals. This can be either a computer generated dupe sheet if you use computer logging or a manual dupe sheet if you use hand logging. Instructions for using the manual dupe sheet are also included. A sample log of the information required to make your log submittal acceptable and showing how to score your contacts is discussed. Included in the brochure is a calendar of the contest dates plus the dates by which logs must be submitted, and the name and addresses of the chapters where they should be sent.

This new brochure will provide all of the answers to your questions regarding 10-10 QSO parties and is available from the contest manager, Don Ward, WØRTV #13962, 4514 Ferrer Drive, St. Louis, MO 63129. Please enclose a business size (#10) SASE with one unit of first class postage for U.S. members, and $1 for airmail postage for DX members.

Two QSO Parties in October

There are two 10-10 QSO parties scheduled for October. The first is the special 10-10 Day Sprint. This 24-hour, all-mode sprint runs from 0000Z to 2400Z on 10 October. The second October party is for CW and runs from 0000Z 25 October to 2400Z on 26 October. Complete rules are available from the contest manager noted in the paragraph above. Let's hope that the sun spots favor us with some good propagation for both of these contests.

Chattanooga Choo-Choo Chapter

It is with great regret that the Chattanooga Choo-Choo Chapter of 10-10 has been put on the sidetrack for an unknown period of time. For fourteen years Alice, NR4R, and Paul, W4UIQ, Jenkins have done an outstanding job with this 10-10 Chapter. Alice and Paul will be moving to Florida to be with family, but they say not to discard any paperwork from the chapter because after settling in, they hope to find a way to get the chapter back on the track and going again. We hope the "train" will run again soon; thanks for a great job for those fourteen years.

Information about 10-10?

If you would like information about 10-10 and how you can become a member and receive your own unique 10-10 number, send $1 plus 2 first class stamps and an address label for the return of your information package to: Mike Elliott, KF7ZQ #54625, 10-10 Information Manager, 9832 Gurdon Court, Boise, ID 83704-4080. No SASE please, as the information package requires a 9 x 12 envelope. You will receive a copy of the 8-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 latest issue of the *10-10 International News*, the 32-page, 10-10 quarterly magazine.

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

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

World Radio History

Visit Your Local RADIO CLUB

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

ARIZONA

Arizona Repeater Association. P.O. Box 35758, Phoenix, AZ 85069-5758. Operates 20 VHF & UHF rptrs. in AZ. Meets 4th Thurs./monthly, 7:30 p.m., APS Bldg., 21st Ave. & W. Cheryl, Phoenix. Info: (602) 849-0851. 9/97

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

Old Pueblo Radio Club, (OPRC). P.O. Box 42601, Tucson, AZ 85733. Meets 2nd Wed./monthly, 7:15 p.m., YMCA Lighthouse Cntr., 2900 N. Columbus (So. of Ft. Lowell). 2/98

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. 3/98

CALIFORNIA

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

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

Coachella Valley ARC. Box 11092, Palm Desert, CA 92255-1092. Meets 1st Wed./monthly, 7 p.m., Portola Com. Cntr., 45480 Portola, Palm Desert. Info: Bill Dews, (760) 346-8611. Net Thurs. 7 p.m. 146.025(+) PL 107.2. 5/98

Contra Costa Communications Club, Inc., WD6EZC/R. P.O. Box 20661, El Sobrante, CA 94820-0661. Meets 2nd Sun./monthly (except May & Dec.), 0630, Baker's Square Restaurant in Richmond, CA. Info: Ed Caine, KA6OFR, (707) 996-0962. 1/98

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

Fresno Amateur Radio Club. Meets 2nd Fri./monthly, 7:30 p.m., Ernie Pyle School, 4140 N. Augusta, Fresno, CA. 146.94(-) 223.94(-). 11/97

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

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. 9/97

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. 1/98

Marin Amateur Radio Club (MARC). W6SG. Box 151231, San Rafael, CA 94915-1231. Meets 1st Fri./7:30 p.m., Kaiser Hosp., Bldg. 2, Terra Linda, CA. (Summer exceptions; contact Pete N6IYU, 924-1578). Sun. AM Club at Red Cross, San Rafael. 9/97

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) 551-2010 or (714) 551-1036. 2/98

Mount Diablo Amateur Radio Club. P.O. Box 23222, Pleasant Hill, CA 94523. Meets 3rd Fri./monthly, 8 p.m., Our Savior's Lutheran Church, 1035 Carol Ln., Lafayette, CA. Net Thurs. 7:30 p.m. on 147.06(+) PL 100Hz. Info: (510) 932-6125. 7/98

Sierra Foothills ARC. 1222 San Simeon Dr., Roseville, CA 95661-5365. 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, 7 p.m., Fri. 28.415. 3/98

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

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

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

Southern Sierra ARS. Meets 2nd Thurs./quarterly (Jan., Apr., Jul., Oct.), 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. 1/98

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. 3/98

This month... *The Old Pueblo Radio Club (OPRC) of Tucson, Arizona, 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.*

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. http://www.ns.net/~NHRC 3/98

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. 2/98

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

River City A.R.C.S. Meets 1st Tues./monthly, 7 p.m., SMUD Bldg. Don Julio at Elkhorn, Sacramento, CA. License classes offered. For info contact Lyle, AA6DJ, (916) 483-3293. 9/97

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, WA3EQQ, (916) 393-4775. 1/98

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. 12/97

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

Shasta Cascade Amateur Radio Society, (SCARS). 2124 Airstrip Rd., Redding, CA 96003. Meets: 3rd Wed./monthly, 7 p.m. at the C.D.F. Conf. Rm. Grape St., near Parkview Ave., Redding, CA. Net 146.64, Wed., 8 p.m. 9/97

Tri-County Amateur Radio Assoc. P.O. Box 142, Pomona, CA 91769. Meets: 2nd Mon./monthly, 7:30 p.m., Covenant United Methodist Church, corner of Towne Ave. & San Bernardino Rd. in Pomona, CA. 1/98

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. 10/97

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

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

Victor Valley Amateur Radio Club. P.O. Box 869, Victorville, CA 92392. Meets 2nd Tues./monthly, 7:00 p.m., Presidio Recreation Cntr., 11100 Apple Valley Rd., Apple Valley, CA. Talk-in 146.94(-), PL 91.5. Net Sun. 7 p.m. 146.94(-). 1/98

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: Joe, KA6LPZ, (714) 963-4426. 10/97

Westside Amateur Radio Club. P.O. Box 11092, Marina del Rey, CA 90295. Meets 3rd Thurs./monthly, 7:30 p.m., Red Cross Bldg., 1450 11th St., Santa Monica, CA. Net every Tues., 8 p.m., 146.67(-). Voice mail: (310) 917-1100. 6/98

Willits Amateur Radio Society, (WARS). P.O. Box 73, Willits, CA 95490. Meets 4th Mon./monthly, 7 p.m., Brooktrails Fire Dept. (northwest of Willits). Talk-in: 145.13(-), PL 103.5. 9/97

Yolo Amateur Radio Society. Meets 1st Tues./monthly, 7:30 p.m., Training Rm. of the Davis PD, 226 F St., Davis, CA. Contact Dave Nishikawa, KC6YFG, (916) 756-6375/Talk-in 144.430. 10/97

Yuba-Sutter Amateur Radio Club, (YSARC). P.O. Box 1169, Yuba City, CA 95992. Meets 2nd Tue./monthly, 7:30 p.m., Yuba City Police Bldg., 1545 Poole Blvd., Yuba City. 1/98

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. 10/97

FLORIDA

Gulf Coast ARC. P.O. Box 595, New Port Richey, FL 34656. Meets 4th Mon./monthly, 7:30 p.m., 3852 Prime Place, New Port Richey. WA4GDN rptrs. 146.67(-) & 145.33(-), serving all of Pasco County. 9/97

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

Port St. Lucie ARA. Meets 1st Fri./monthly, 7:30 p.m., St. Andrews Church, Prima Vista Blvd., Port St. Lucie, FL. Contact: Roy Cox, KT4PA, (561) 340-4319. Call in 146.955(-). 9/97

Saint Petersburg Amateur Radio Club. Meets 1st Fri./monthly, 7:30 p.m., Red Cross Bldg., 818 Fourth St. North, St. Petersburg, FL. Nightly net 6:30 p.m., 147.06(+). Rptrs. 147.06(+), 224.66(-), 444.475(+). Info: C. Wagner, KE4EYI, (813) 896-4274. 1/98

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

Vero Beach ARC, W4OT. P.O. Box 2982, 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. 1/98

GEORGIA

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

HAWAII

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

Emergency Amateur Radio Club, (EARC). P.O. Box 30315, Honolulu, HI 96820-0315. Meets 4th Thurs./monthly, 7 p.m., Lincoln Elem. Sch., 615 Auwaiolimu, Honolulu. Nets: nightly 7:30 p.m., 146.88 & 146.80. Rptrs: 146.76(-), 146.80(-), 146.88, 146.98(-), 146.94(-). Info: (808) 833-6944, WH6CZB. 10/97

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

ILLINOIS

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

World Radio History

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(-). 2/98

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

Hamfesters Radio Club, W9AA. P.O. Box 42792, Evergreen Park, IL 60805. Meets 1st Fri./monthly, 8 p.m., Crestwood Civ. Ctr., 139th & Kostner, Crestwood, IL. Nets: Sun. (local) 0100 UTC, 28.410 MHz; Mon. 9 p.m. 146.43 S., Packet Mailbox 145.65 MHz. Info: (312) 974-3291. 1/98

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

Schaumburg ARC. Meets 3rd Thurs./every other month, 7 p.m., Rec. Center, corner of Bode and Springinsguth Roads. Nets all other Thurs., 9 p.m., 145.23(-). Info: (708) 612-9446. 8/97

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(+). 11/97

LOUISIANA

Baton Rouge ARC. Meets last Tue./monthly, 7 p.m., Catholic HS cafeteria, 855 Hearthstone Dr., Baton Rouge, LA. Info: Norma Ramey, WD5GFD, (504) 654-6087. Club rptr. 146.79(-). 9/97

MAINE

Androscoggin Amateur Radio Club. Meets 1st Wed./monthly, 7 p.m., Auburn Police Station, 1 Minot Ave., Auburn, ME. Info: (207) 782-8699. 11/97

MASSACHUSETTS

Quannapowitt Radio Assoc., Inc. 6 Savin St., Burlington, MA 01803. Meets 3rd Fri./monthly, 8:00 p.m., at Lynnfield-Wakefield Methodist Church, Vernon St., Wakefield. Info: Jim Chamberlain, N1AKG, (617) 944-5098. 3/98

Wellesley Amateur Radio Society. Meets 3rd Thur./monthly, 7:30 p.m., Wellesley Police Station, Washington St., Rt. 16, Wellesley, MA. Talk-in 147.030(+). Info: G. Driscoll, NV1T, (617) 444-2686. 12/97

MICHIGAN

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

Eastern Michigan Amateur Radio Club, (EMARC). Meets 1st Tue./monthly, 8:30 p.m., Woodland Developmental Cntr., Kimball Township (Range @ Smiths Creek Rd.). Contact Frank Forsyth, N8XTO, (810) 987-3540. Talk-in: 147.30(+). 9/97

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

Genesee County Radio Club, Inc. Meets 3rd Tues./monthly, 7:30 p.m., Genesee Area Skill Center, Torrey Rd., Flint, MI. (810) 634-6077. 3/98

MISSISSIPPI

Jackson Amateur Radio Club, Inc. Meets 3rd Thurs./monthly, 7 p.m., Am. Red Cross Bldg., Riverside Dr., Jackson, MS 39202. 10/97

NEVADA

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

Sierra Intermountain Emergency Radio Assoc., (SIERA). Meets 2nd Tues./monthly, 7:30 p.m., Carson Valley Museum & Cultural Cntr., 1477 Hwy 395 North, Gardnerville, NV. Contact: George Uebele, WW7E, (702) 265-4278, 147.330 MHz. 11/97

Sierra Nevada Amateur Radio Society (SNARS). P.O. Box 7727, Reno, NV 89510-7727. Meets 2nd Sat./monthly, 0800, KT's Restaurant, 5485 Equity Ave. (corner Equity & Financial). 146.61(-) PL 123. 443.075(+) PL 123. Contact Swede Ohlson, WDØAXP, (702) 852-2402. 1/98

NEW HAMPSHIRE

Great Bay Radio Assn., WB1CAG. P.O. Box 911, Dover, NH 03820. (603) 749-2970/332-9107. Meets 2nd Mon./monthly, 7 p.m., Rochester Community Ctr. Talk-in: 147.57. 11/97

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

NEW JERSEY

10-70 Repeater Assn., 235 Van Emburgh Ave., Ridgewood, NJ 07450. Meets 1st Wed./monthly (except July & Aug.), 8 p.m., VFW, Valley Rd., Clifton, NJ. Rptrs. 146.70(-), 224.84(-), 444.15(+). 10/97

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

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. 8/97

NEW YORK

Amateur Radio Assoc. of the Tonawandas, (ARATS). P.O. Box 430, No. Tonawanda, NY 14120. Meets 3rd Tues./monthly (except July & Aug.), 7:30 p.m., Sweeney Hose Co., 499 Zimmerman St., No. Tonawanda, NY. Talk-in: 146.955(-) rptr. W2PVL. 10/97

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. 1/98

Hall of Science Amateur Radio Club. P.O. Box 131, Jamaica, NY 11415. HOSARC, 2nd Tue./monthly, Hall of Science Bldg., 47-01 111 St., Flushing Meadow Park, 7:30 p.m. Info: Arnie, WB2YXB, (718) 343-0172. 2/98

Orleans County Amateur Radio Club, (WA2DQL). Meets at Emergency Management Office, West County House Rd., Albion, NY 14411, 2nd Mon./monthly, 7:30 p.m. 145.27(-) — WA2DQL. 12/97

PROS, Pioneer Radio Operators Society. Meets 1st Wed./monthly, 7 p.m., Sardinia Town Hall, Savage Rd., Sardinia, NY. Net 9 a.m. Thurs. 3853 kHz. 3/98

The Radio Club of J.H.S. 22, N.Y.C., Inc. WB2JKJ. P.O. Box 1052, New York, NY 10002. 24-hr. hotline: (516) 674-4072. Fax: (516) 674-9600. Non-profit org. using Ham Radio to enhance the education of youngsters, nationwide. Join us — "Classroom Net," 7.238 MHz, 7 a.m. E.S.T. PSE QSL! 9/97

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

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

Westchester Emergency Comm. Assoc., (WECA). Meets 2nd Mon./monthly, 7:30 p.m., Westchester County Ctr., White Plains, NY. Contact WB2VUK (914) 631-7424 or WECA INFO LINE (914) 741-6606 for details. Talk-in WB2ZII/R 147.06(+) PL 114.8/2A. 10/97

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(+). 10/97

NORTH CAROLINA

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

OHIO

Ashtabula County ARC. Ken Stenback, AI8S (964-7316). County Justice Ctr., Jefferson, OH. Meets 3rd Tue./monthly, 7:30 p.m., County rptr., 146.715(-). 10/97

Clyde Amateur Radio Society (CARS). Meets 2nd Tue./monthly, 7 p.m., Municipal Bldg., Clyde, OH 43410. NF8E rptr. 145.35(-) and 442.625(+) MHz. Net Sun. 9 p.m. Info: E. Remaley, KA8CAS. 3/98

Greater Cincinnati Amateur Radio Assn., (GCARA). ARRL SCC, meets 4th Wed./monthly, 7:45 p.m., Brusman's Hall, 4813 Vine St., St. Bernard. Nets: Mon. 9 p.m. EST 147.15(+), Thurs. 9 p.m., 1.936 MHz. Info: WA8STX, (513) 772-7378 or KW8X 961-3250. 11/97

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. 1/98

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(-). 2/98

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

OREGON

Central Oregon Coast ARC. P.O. Box 254, Florence, OR 97439. Meets 3rd Sat./monthly, & every Wed./weekly, 9 a.m. for brkfst. at Woody's Rest. Net Wed. 7 p.m., 146.80(-). Info: 997-2323 or 997-4074. 1/98

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

Keno Amateur Radio Club. P.O. Box 653, Keno, OR 97627. Meets 3rd Thurs./monthly, 7 p.m., Keno Fire Stn. Rptr. 147.32(+) W7UFM. Info: Tom Hamilton, WD6EAW, (503) 883-2736. 11/97

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

PENNSYLVANIA

Butler County Amateur Radio Assn. P.O. Box 1787, Butler, PA 16003-1787. Meets 1st Tues./monthly, 7:30 p.m., Boy Scout Cntr., 830 Morton Rd., Butler, PA. Call-in W3UDX/R 147.36(+). Net 10:10 p.m. nightly. 10/97

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. 3/98

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

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

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(+). 1/98

VIRGINIA

Southern Peninsula Amateur Radio Klub, W4QR (SPARK). Meets 1st Tue./monthly Salvation Army Community Bldg., Hampton, VA. Repeaters 146.73(-), 449.55(-). VE Exam Info: (804) 898-8031, W4RTZ. 2/98

Virginia Beach ARC. Meets 1st Thurs./monthly (except July), 7:30 p.m., St. Andrews United Methodist Church, Tucson & Princess Anne Rds., Virginia Beach, VA 23462. 2/98

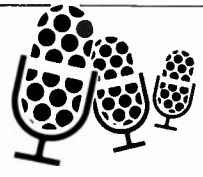
WASHINGTON

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

WEST VIRGINIA

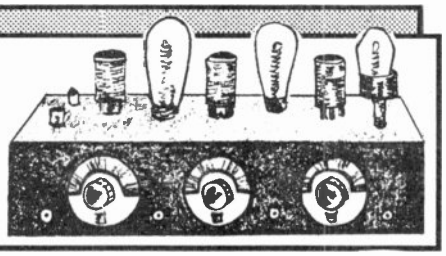
Jackson County Amateur Radio Club. Meets 1st Thurs./monthly, 7:30 p.m., United Nat'l Bank of Ripley. Net Mon. 9 p.m. on 146.67(-) WD8JNU/R. For info: D. Tennant, N8ZYB, Rt. 1, Box 188, Mt. Alto, WV 25264. 7/98

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



World Radio History

Old-time Radio



A Radio History of W8ANO Waldo Sayles and Milan, Ohio

In the early 1900s, there were no "electric power grids" such as we now have, where cities and states are widely interconnected with 60-cycle power. Troy, New York, had 40-cycle power, the huge Niagara Falls system had 25-cycle, California had 50-cycle, as examples. In the early 1900s, my family's hometown, Milan, Ohio, had a municipal electric plant with a 133-cycle belt-driven generator.

Power would come on around 7 a.m. and go off around 10 p.m. There was no hardship to customers because they used only a few light bulbs. There were no electric motors or appliances in those days.

It was around 1908 when Milan shut the generator down and connected to power from the Lake Shore Electric Railway. The power was 25-cycle, generated at Beach Park, Avon. This one power plant then supplied all the power for the streetcars from Cleveland to Toledo. In addition, it had substations at and supplied power for Vermilion, Berlin Heights, Huron, Milan, Monroeville, Castalia, Bellevue, Vickery, Gibsonburg, Lindsey, and other users along the line.

In 1925 this overloaded plant burned, and there was a prolonged power outage, so conversion to 60 cycle power from another source could be made. In September of 1925, I got a job with the "L.S.E." Railway and remained employed by them throughout a chain of take-overs: L.S.E. to 1929, Lake Erie Power and Light to 1937, Ohio Public Service Company to early '50s, and Ohio Edison Company, until I retired in 1972.

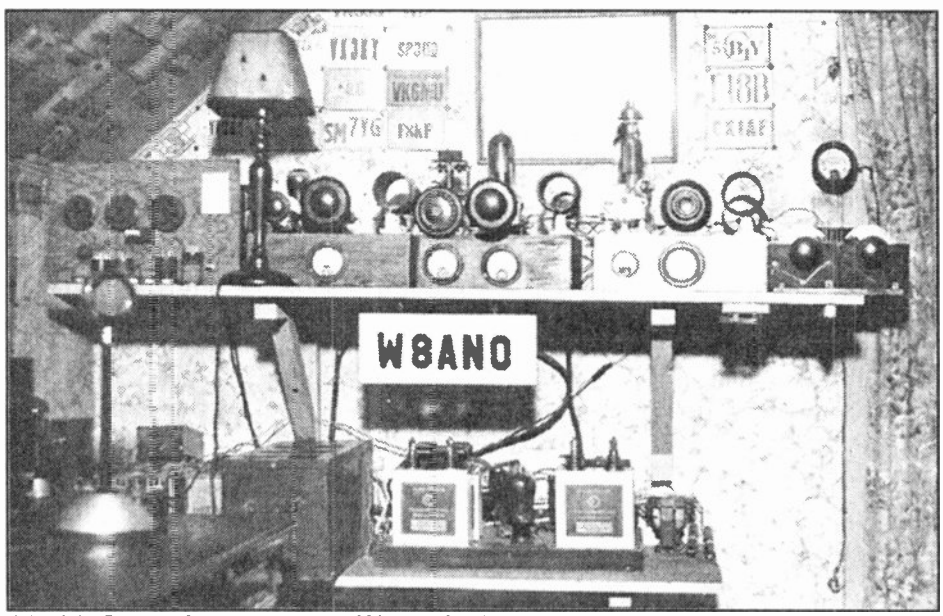
My brother Ralph, born in 1900, was seven years older than I, so I was the "kid brother." Our father was a motorman on the Sandusky-Milan-Norwalk L.S.E. and he became acquainted with some people interested in wireless. Through them, Ralph became interested in wireless, too. Quite a few people were experimenting with a Ford Model T spark coil, to send a signal 5 or 10 miles.

It was about 1921 when the United States government made it illegal to transmit without a license. Ralph had passed the test in 1915, and had calls 8NV, and later 8IZ, at Milan. I operated the spark set often.

In 1915, names of well-known wireless equipment makers were Clapp Eastham, Holtzer Cabot, William J. Murdock, DeForest, Brandes, Packard Electric, Thordarson, and William B. Duck were prominent.

At the corner of Huron and Williams Streets in Milan, our station 8NV/8IZ had a quarter inch spark coil, helix, 4-wire flat top aerial 110 ft. long with 8-foot spreaders, Electrose insulators and fan lead-in. Aerial was 50 ft. high. A copper wash boiler buried 5 feet served as a ground. The receiver was a Galena detector, homemade 2-coil loose coupler, Murdock condenser and a Blitzen tapped coil variable rotor tuner and Holtzer Cabot phones. Range was about 15 miles if we were lucky enough to find another station to work.

When World War I came, all amateur wireless activity was closed down by the United States government. Wireless operators were so few, 34 licensed in Ohio in 1915. They were so much in demand for the war effort, that the government took Ralph, then 17 years old, out of high school to operate as a "wireless officer" on the Great Lakes boats in the war effort. I remember he was on the *Wyandotte* freighter, *W. F. White* freighter, *Juniata* passenger boat, and *Tionesta* passenger boat. I keyed the *Wyandotte* thundering rotary spark set when at Sandusky unloading dock, and



W8ANO station at Vermilion, Ohio in 1935.

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have a picture of it.

I remember when, during the World War I period, I used to copy code from NAA which was the powerful government spark station at Arlington, Virginia. Each evening they would send government news. Many times local people would visit to find out the up-to-the-minute news. In those days the local paper came out once a week, and there was no broadcast radio or television, so my ability to copy and share the latest news was quite a satisfaction.

In 1919, when World War I ended, spark sets still dominated. Our station now used an Audiotron detector, Clapp Eastham and Paragon RA10 tuner, Murdock condenser, Brandes phones, and the same aerial. The transmitter was now a Thordarson 10,000 volt transformer, Benwood 16-tooth rotary quenched gap, Murdock oscillation transformer with a range now 100 miles or more.

In 1919, DeForest advertised a "CW" transmitter with a 75-mile range or more, complete with bulbs, for $200. Top wages in 1919 were 15 cents an hour, so there were few buyers for the "CW" set.

The Benwood gap cost me $19, the Audiotron tube $6, and a Paragon RA10 was $85. Big names were Marconi, Radiotron, Audiotron, Cunningham, Grebe, Tuska, Corwin, Bunnell and Weston. In 1919, popular tubes were Moorhead, Marconi, Audiotron and DeForest.

In 1921, Ralph went to Bliss Electrical School in Washington, D.C., and lost interest in wireless, so I obtained my own call, 8AXF, which I held during the 1920s. In 1930, I passed the Class "A" exam and got the call W8ANO, which I have held since then.

In 1921, the biggest names included Federal Radio, Amrad, Acme, Burgess, Stromberg Carlson, General Radio, Western Electric, Magnavox, and C.R.L. At C.R.L. (Chicago Radio Laboratory) R.H.G. Mathews was 9ZN and had a most elaborate and powerful CW and spark station. C.R.L. made equipment named Z-Nith, (later changed to Zenith). I have a 1921 9ZN QSL.

My 1921 set was still spark, but now included a WE 205-D oscillator, chemical rectifier, and hot wire ammeter. I found the DX on CW over spark was fabulous. Also experimented with loop modulation wireless telephone and was heard on voice 100 miles away! The receiver now UV 200 regenerative detector, Paragon RA10 tuner, with Variometer and Variocoupler and Baldwin type "C" mica diaphragm phones.

The 25-cycle power was difficult to use on transmit, lots of ripple on CW, and anyone hearing me on spark knew it was me by the fluttery signal.

By 1921, wireless was so important that Montgomery Ward had a six page ad for apparatus, in the February, 1921, issue of *QST*! By 1924, widely known names were Atwater Kent, Eisemann, Bradleystat, Tungar, Remler, Frost, Sterling, Cardwell, National, Dubilier, Willard, Sangamo, Exide and Freshman.

My 1924 station was regenerative detector U.V.200, RA10 tuner, spider web coils, one step audio, Baldwin and Brandes phones. WD11, WD12, and 199 tubes were now available. By 1924, the UV 202 transmitter I made in 1923 was replaced by a UV 03 that I built, powered by a 750-volt dynamotor. I was always trying different aerial ideas. Antenna with counterpoise seemed best. By now, I was contacting foreign countries often. Reflex, Neutrodyne and Superheterodyne receivers were coming into use.

By 1927, battery operated radios were going out of use and "all AC" sets were taking over. Cone, Drum, Dynamic speakers now replaced the Horn. For transmit, 210, 211, 203A, and 852s were favorites. M.O.P.A. — crystal control, push pull, Heising modulation and double button microphones were in use.

In 1930, Esther and I were married. We moved to Vermilion, Ohio, and I became more active in ham radio, along with playing banjo in dance bands and repairing radios. For several years, I was the only amateur along Lake Erie between Lorain and Sandusky, Ohio.

1930 brought some experiments with rotating disc TV, crystal con-

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trol, class "B" modulation, 866 and 872 mercury vapor rectifiers and screen grid tubes. My station now was a home-built, tuned RF regenerative detector, one stage audio amplifier, Baldwin and Brandes phones and a Peerless speaker. The transmitter was now using a WE 211D Hartley oscillator that I built in 1925, powered by an Esco 1,000-volt motor generator. A 125-foot, end-fed antenna had been installed.

By 1933, I was using a McMurdo Silver superhet receiver. Transmitter was a 47 oscillator, 46 buffer and parallel 46s final, modulated by 210s running class "B" for 160 Meters. Still using 211D Hartley oscillator for other bands.

By 1935, W8ANO was a most modern, powerful setup, superhet receiver, 59 oscillating crystal control, 210 buffer, 211 second buffer driving two 250THs final to a kilowatt, plate modulated by D104XTAL microphone, 4-stage amplifier driving 211s class "B." My 1935 antenna was 1200 ft. long wire, 500 ft. vee, and home built 20-meter rotary beam up 65 ft.

1935 big names were National, Hallicrafters, Breting, Hammarlund, Howard, R.M.E. Meissner, and Eimac. Many new types of tubes were popular too.

In 1937, the Lake Erie Power and Light Company was taken over by Ohio Public Service Company, and I moved to Elyria, Ohio. I had to dismantle the station and antenna system at Vermilion. Now cut back to a "city sized" 100 watt setup.

At the start of World War II, the government closed all ham transmitting, and all transmit equipment had to be disconnected, government registered and tagged. During World War II, I thought I might want a job in commercial radio and passed the exam for commercial license but did not use it, as I decided to stay with Ohio Public Service Company.

After WWII the station was still 100 watts, until 1952 when we built our new home and moved to the present location in the Grafton, Ohio, area. In 1952, I put up a large antenna system and rotary beam, station now had a Hammarlund Super Pro, and Globe King 500 transmitter.

Many changes were made up until the 1960s, when I got single side band, a Drake T4X/R4/MS4 setup and built a Heath Warrior kW amplifier.

In 1930, I got my brother Ralph re-interested in radio. I coached him to take the exam, and he took it and got the call W8ERJ. In 1955, he obtained the call W8ZJ, and that was the call he held until he died, in 1970.

Ralph's son David is WB8LEC, in Clyde, Ohio. My son-in-law is Stewart Strickler in Boulder, Colorado, WØICS.

Ham radio has not always been roses! In the spark era, neighbors complained about the loud noise from the roaring spark gap. The Benwood rotary quenched gap helped that, but neighbors couldn't use the telephone because of loud spark pickup, and they would also got shocks from telephones and appliances when the spark transmitter was on. When I got lots of power output, the house fuse blew because of kickback in the wiring. Also, as a fringe benefit, lights all around the block dimmed when the transmitter was keyed. Early CW operation still brought complaints from one tube listeners trying to hear KDKA. The one tube sets were sensitive but not selective.

Later there were problems on transmit from harmonic radiation, on receive from TV horizontal oscillator noise, on transmitter being picked up on record players, TV sets with 21-megacycle IF systems, stereos, and telephone setups with good RF pickup capability. Modern transmitters now are much cleaner, and generally devoid of harmonic and spurious radiation.

I never lost interest in wireless and radio, a great, fascinating, rewarding and challenging hobby. There is always something new, constant development such as computerized modes, fax, RTTY, Amtor, Packet, ASCII, moon bounce and space communications.

There are endless worlds to conquer. My present 1997 station is a Yaesu FT990 transeiver, and the same old Warrior amplifier, and the same old warrior operator! 73, Waldo A. Sayles, W8ANO WR

Get your holiday shopping done early *AND* avoid the traffic!

New Products — pages 64, 65 and 66; Worldradio Books, hats and mugs, pages 70 and 71

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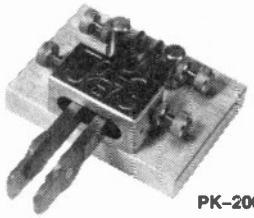

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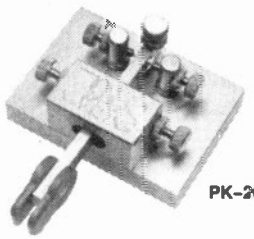

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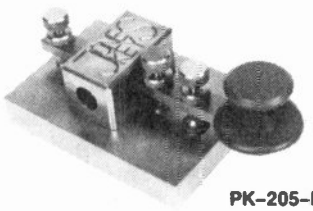

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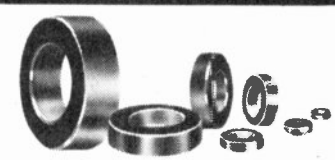

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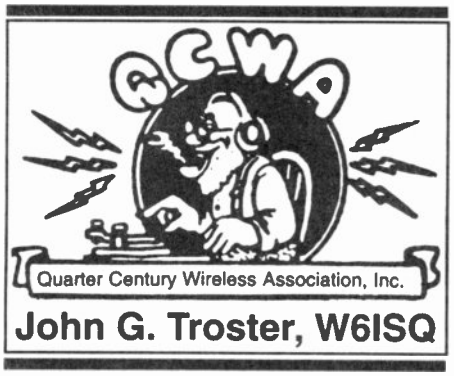

John G. Troster, W6ISQ

"Everything's up-to-date in Kansas City"

And we mean up-to-a-great time. This is the clarion call. Start now making plans to be there — Kansas City, 10-12 October. It's the 50th Anniversary Convention of QCWA hosted by Mid-Continent Chapter 35. Convention co-chairpeople Larry Staples, WØAIB, Bill McGrannahan, KØORB, also a Director, and their crack staff of know-how's, have planned an enticing weekend experience promising that you and yours will enjoy the joys of K.C. and special events. How's that sound? Good enough to GO, right! Maybe even Kansas City Kitty will be there too!

Begin with arrival. Some of us experienced traveler-types (read moving a little slower) like to get to these things a day ahead, so we'll likely arrive on Thursday, 09 October, at the Crowne Plaza Hotel. In this particular case. Arriving early could be dangerous because only two blocks away is Country Club Plaza, one of the premiere shopping centers in the US of A, and wives, being endowed with some kind of magnetic chip for such spots, well . . . .

Friday morning the programs and forums begin. President Emeritus Lew McCoy leads off with the latest developments in dipole antennas. Then Buddy Bill Pasternak, WA6ITF, FM columnist for **Wor*ldradio***, speaks about his popular *Newsline* Amateur Radio program. He's followed by Director Bob Buus, W2OD, explaining spark gap transmitters, so some of you OGs can renew acquaintance with that mode. Maybe some of you can figure out a way to use spark gap to clean out some of the garbage that passes for Amateur Radio transmissions nowadays.

And talk about geographical wonders. There's an authentic historical tour on the "Steamboat Arabia" Museum. Sign me up now fellas, I gotta see that "Arabia Steamboat" in K.C. Tour includes a stop at the colorful Old City Markets in K.C., and lunch, oh yes, is included!

Friday evening, direct from Dayton, '97 *Amateur of the Year*, Leo Meyerson, WØGFQ, will engage us with his annual Sing Along. He will be playing his instrument of second choice — the piano (his first choice being the organ).

Saturday morning opens with a "Ham Breakfast" buffet, afterwards it's off to the big IMAX theater, then to Independence to see "Harry's Town," and the Truman Library. The big, Golden Anniversary Banquet will be Saturday evening featuring choice of prime rib or turkey. Turkey? In Kansas City where beef simply isn't beef unless it's from?

Sunday morning features breakfast at the "Station" Casino with return to the hotel by noon. After that, on your own. You might check whether the KC Chiefs are in town. And of course there's always that shopping mall . . . .

That's the invitation. All QCWA members guaranteed a great time and the bonus of being part of the Big Golden Fiftieth! Bill McGrannahan, KØORB, is the official contact for application blanks and further information. Use CBA or e-mail: billmcg@qni.com or phone 816/561-0730 or fax 816/752-7100. Look for me. I'll be in the first seat on the starboard side of the Steamboat Arabia with a lead weight. Mark Twain!

Chuck Walbridge, K1IGD. Secretary, QCWA

Secretary Chuck is another of our hard working, albeit relatively new, members who, like VP Gary Harrison (see last month's issue), wanted to put something back into Amateur Radio in general and QCWA in particular.

Chuck was born in Omaha, Nebraska. Lessee now, who else do we know in QCWA who lives in Omaha and plays the piano? At a tender age, Chuck's family moved across the wide Missouri River to Council Bluffs, Iowa, where he went through grade and high school. He became interested in radio things when he was in grade school and his family bought an old Scott radio which had short wave coils. Those short wave, far away radio stations that he heard were fascinating to Chuck. He also became fascinated with Jan, a young lady in the same class who lived only two blocks away!

When he was 16, Chuck went to

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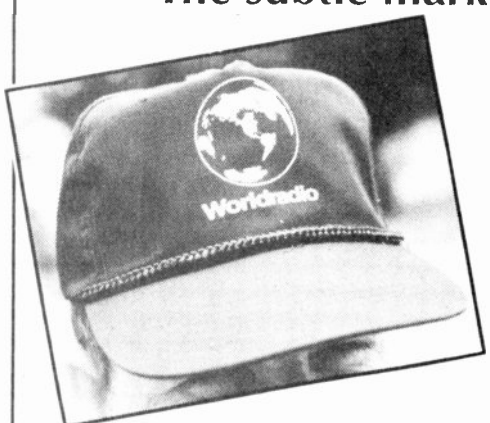

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World Radio History

work after school and summers for that above-noted fella who lived in Omaha — Leo Meyerson, WØGFQ, who operated World Radio Laboratories. Chuck did everything in the plant: Receiving, shipping, inventory, general order filling; everything a general flunky would do. But he also had a chance to talk to the hams who were building Leo's Globe Scout and Globe King, etc., an on-the-job incentive to Amateur Radio. Also, he had a chance to talk to Leo now and then which he remembered and appreciated. Thus inspired, Chuck studied theory and

Chuck Walbridge, K1IGD

code and in 1952, acquired his Tech/Novice ticket and call, WØLFX.

He had a small homebrew CW rig while in high school but, busy with school and work, he didn't get in much operating time. After high school he went to Iowa State U, majored in Electrical Engineering, graduated, and set off to Wayland, Massachusetts for a job with Raytheon. After getting well acquainted with the company and the work he would be doing, he returned to Council Bluffs to wed his aforementioned childhood sweetheart, Jan, and set off for career life.

He first was assigned to a group doing HF propagation and backscatter studies, using pulse transmissions. One of their early discoveries was that when rockets were launched from Cape Kennedy, the ionosphere was temporarily disturbed. Other experiments led to the development of the over-the-horizon radar system.

After five years Chuck left Raytheon and went to Sylvania to work on design and testing of communications systems for the Minute Man missile. Eventually, he became lead designer of communication equipment for Ground Launch Cruise Missile Systems. He also participated in all design developments and testing phases of the HF and UHF communication equipment for the sub-contract his company had with General Dynamics.

When Chuck moved to New England, he became K1IGD and went on 6 Meters. In the mid '70s, he upgraded to an Advanced Class License and built a Heathkit SB101 transceiver. He acknowledges that he was always more interested in the technical side of Amateur Radio than the operating side, trying out new circuit ideas and such. After he retired he became much more involved in amateur activities and now operates a Yaesu FT890, 2-meter packet, and the digital modes on 14 and 17 MHz.

With more time on his hands, Chuck was able to attend a few meetings of QCWA with friends. He enjoyed the association, and in 1991 joined the Eastern Massachusetts Yankee Chapter. A few months later, the secretary of the chapter retired and Chuck took over those duties. He also became treasurer and took over as editor for the chapter newsletter. All at once! Now there's an enthusiastic QCWAer.

The National Convention in '95 was held in Manchester, NH, and Chuck was treasurer-in-charge of reservations. At that time, he met Blanche and Wes Randles (W4GXZ and W4COW), who encouraged him to become even more active, perhaps on a national level. Chuck attended the Ottawa convention the next year and met John Swafford, W4HU, then secretary of QCWA. When John was ready to retire, he asked Chuck if he would take over as national secretary. Chuck was ready and said "yes."

Chuck and Jan have two sons. David, 35, and his wife work at the Plymouth Plantation on Cape Cod. He's manager of the Indian Village there, and both he and his wife play roles as pilgrims for the tourists. Must be a lot of fun to *be* pilgrims in that setting. Son Douglas, 31, and wife are desktop publishers in Waltham, MA.

From that first work after school and on Saturdays for Leo in Omaha, Chuck's path in life has taken him all the way from electrical engineering to Secretary of QCWA. We're indeed glad to have Chuck Walbridge, K1IGD, on the job as One of Us, the Elite, the Many, the Hard Working, the Dedicated, the QCWA.

Until the next one 73 + 25. Jack, W6ISQ. **WR**

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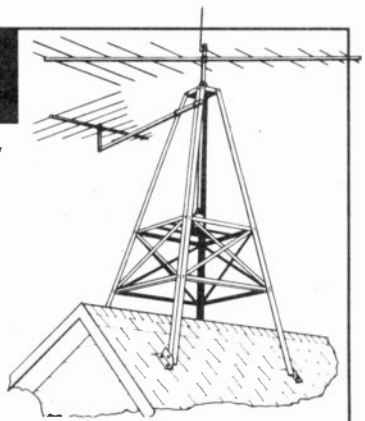

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Activities:

18-20 Sept.	YLRL Howdy Days
26-28 Sept.	CLARA Gala Celebration
27-28 Sept.	JLRS Party Contest (SSB)
04-05 Oct.	JLRS Party Contest (CW)

Contest info

In the April column, the YL winners of the 1997 YL-OM Contest should have listed Valorie Catalano, KA1YKW, in first place; Terrie Tenney, AB7PX, in second place, and Mary Moore, KL7P/4, in third place in the SSB portion. In the CW portion, Joyce Collins, N8UOO, won first place; Sandra Hanson, K2RUE, was second, and Edith McDade, WA4SRD, was third. Congratulations to each of these YLs.

The Young Ladies Radio League will sponsor Howdy Days, from 1400 UTC, 18 September, through 0200 UTC, 20 September 1997. All YLs are invited to participate in this all-mode contest, and logs must indicate if you are or are not a YLRL member. The top-scoring YLRL member will win her choice of a YLRL pin, charm, or stationery, and the top-scoring non-YLRL member will win a one-year membership. Logs go to YLRL Vice-President Nancy Rabel Hall, KC4IYD, P.O. Box 775, N. Olmstead, OH 44070-0775, and must be postmarked not later than 30 days after the contest ends.

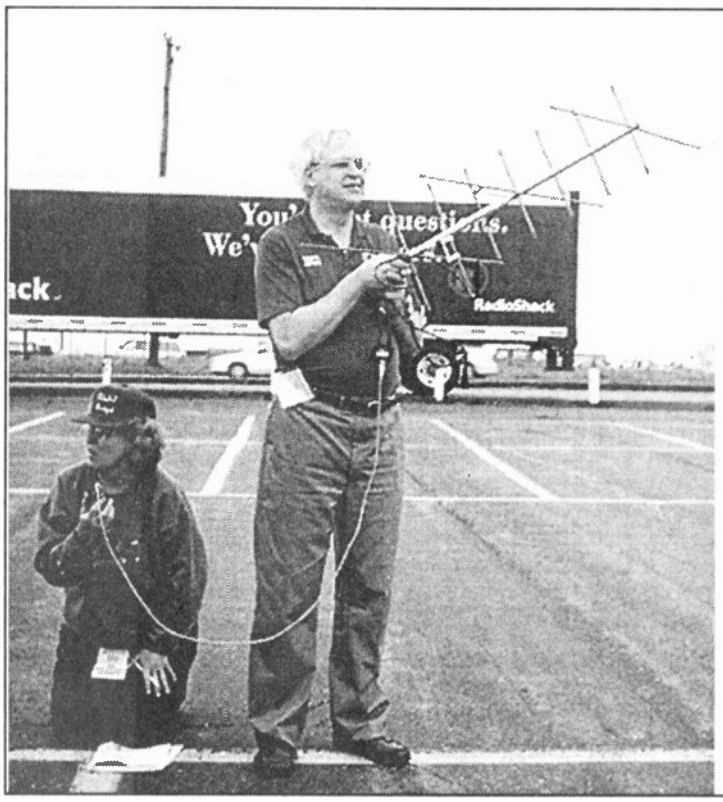
The Japanese Ladies Radio Society announces the 26th JLRS Party Contest, with the phone portion running from 0300 UTC, 27 September, through 0300 UTC, 28 September 1997, and the CW portion running from 0300 UTC, 04 October, through 0300 UTC, 05 October 1997. All licensed men and women throughout the world are invited to participate, and all bands and all modes may be used. Logs go to Contest Custodian Kuniko Iha, JH6BBF, 5-34-72 Obiyama Kumamoto City 862, Japan, and must be postmarked not later than 20 October 1997. All participants will receive a certificate for participating in the contest and stickers are available for participating in future contests. I'll be glad to send you complete rules for this contest.

Working AO-27

As I was leaving the Dayton Hamvention in May, I saw a YL on her knees in the parking lot, with an OM standing beside her pointing an antenna toward the sky. When I got closer, I could see she was making a contact on a handheld. After the contact was finished, I learned it was Bridget Wyrick, N1XAU, and her husband Chuck, KM4NZ, from Derry, New Hampshire; Bridget had just made the last contact possible during a pass of the AO-27 satellite. She was so enthusiastic and excited that I asked her for more information.

In February 1996, Bridget had taken a 4-month leave of absence to be with her son, Michael, N4USI, who was recuperating from a serious skydiving accident. During his recovery, Michael encouraged his wife, Teresa, and his mom to study for their licenses, without letting Chuck, who was back home in New Hampshire know. They both passed their tests; Teresa was issued the call sign KF4IRR and Bridget received N1XAU.

Her very first QSO was from Michael and Teresa's home in Virginia to Chuck, in New Hampshire, through the AO-27 satellite. Bridget is especially fond of AO-27 because Michael helped to design it and went to South America in August 1993, to participate in its launch.



Bridget Wyrick, N1XAU, and her OM Chuck, KM4NZ, were looking for new states during a pass of the AO-27 satellite at the Dayton Hamvention.

Bridget had her license in time to attend the Dayton Hamvention in 1996 and make plans to return in 1997. She was hoping to be able to work some new states at Dayton, and while they were making preparations, she read an article in *The AMSAT Journal* describing a portable station that included the new Arrow antenna which weighed only 19 ounces and could fit in a fly fishing rod case. Mother's Day was approaching so Bridget placed her order.

She took the antenna to Dayton

World Radio History

YLRL Vice-President Nancy Rabel Hall, KC4IYD, (left) and Jean Ruth, KB8HYN, at the 1997 Dayton Hamvention. ***—photos WAØWOF***

and on Thursday, 15 May, Bridget made her first portable contact in the Hara Arena parking lot and worked N8ULU, in Detroit. She met him the next day at the Hamvention, where she also met W8CZF, KB8TMX, and KB8VAO, all previous contacts from AO-27.

From their QTH in New Hampshire, it is impossible to work Hawaii, and Alaska is possible, but difficult. Bridget worked every pass of AO-27 from the Hara Arena parking lot, desperately trying to contact Alaska, but was unsuccessful — although she did get as far west as California.

She is collecting QSLs for WAS but still needs Montana, Hawaii, Delaware, Maryland, Alabama, Georgia, Arkansas, Nevada, West Virginia, Nebraska, and Alaska. Bridget says she'll keep trying and is really enjoying her new hobby. Right now she has 96 QSL cards displayed on the wall of her station, and she is enrolled in a Morse code class, with plans to upgrade soon.

YL Updates:

New officers of the Italian Young Ladies Radio Club have been elected and will serve for the next two years. Adriana Parducci, IK5MEQ, will serve as President; Maria Pianella, IKØPXD, as Secretary and Editor; Pina Lazzarini, IK5GBL, as Contest Manager; Gigliola Loddo, ISØPFD, as Awards Manager, and Ruth Geering, IT9ESZ, as DX Correspondent.

Lesley Lewis, S92YL, and her husband Charles, S92SS, left São Tomé in May and will be soon be operating from their new home in Kavala, Greece. Their prefix will be SVØ but new calls have not yet been assigned.

Congratulations to Mary Meyers, NØAQC, and her husband Gary, KYØB, of Aurora, Missouri, who shared the honor of being named "Ham of the Year" by their local club, the Ozarks Amateur Radio Society, in May. Both Mary and Gary hold Extra Class licenses and have contributed in many ways to both their club and the community.

YLs in the Wichita, Kansas area have been having a lot of fun in 1997 and have several activities planned for later in the year. This spring, Ella Koons, WØAYL, who has moved back from Texas and is now living at the Masonic Home in Wichita, invited the YLs over for a tour of her ham shack, and the staff served everyone with refreshments.

The group planned to set up an all-YL station for Field Day in June and have an August camp out, where they will set up a radio station. The Wichita Hamfest in October will feature a YL forum, and in December, they are planning a special Christmas dinner with a white elephant gift exchange. For details and specific dates, contact Lynn Grimes, KGØWQ. Her e-mail address is grimes@sktc.net.

Three YLs will be part of the DX-pedition to Willis Island in September. Ann Santos, WA1S; Elvira Simoncini, IV3FSG, and a YL from Japan will use one call sign and the OM operators will have another. Six stations, operating from two separate locations, will be active on CW, SSB, and RTTY, from 10 through 160 Meters. They plan to arrive around 11 September and will operate for 12 days. Willis Island is IOTA OC-005, and when they return to Australia, they will also activate Holmes Reef, which is unnumbered. The QSL route will be announced. **WR**

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"Amateur Radio Month" declared

New York Governor George Pataki has issued a formal Proclamation declaring the month of June as "Amateur Radio Month" in the Empire State. The document lauds New York's 38,000 radio amateurs for providing assistance in several areas. This includes service at public service events and emergency communications, participation in Field Day events, the educational aspects of the SAREX and MIREX programs, and the promotion of international goodwill.

Governor Pataki has been invited to attend a number of formal presentations of the Proclamation. He was asked to visit a number of Field Day sites established near the state capital at Albany. *—via This Week in Amateur Radio*

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Now hear this: The OHR-100

On one hand, a rugby scrum between QRP transceiver designers certainly has its advantages. The competition has produced a bunch of excellent low power radios over the last few years.

On the flip side, though, is the danger of rubber stamp syndrome: a proliferation of commercially produced QRP rigs that are virtually carbon copies of each other. That's no fun.

So, in all candor, news about Oak Hills Research's new OHR-100 was greeted at KI6SN with a bit of skepticism. After all, in the populous world of single-band superhet CW transceiver kits, hadn't we already been there? Done that?

Well, as it turns out, not by a long shot.

OHR owner/designer Dick Witzke, KE8KL, has raised the ante with the '100 — an outstanding piece of electronic and physical engineering from the company's Big Rapids, Michigan, base.

The OHR-100 is available in 40, 30, 20, 17 and 15-meter packages, producing a solid 4-5 watts output that is back-panel adjustable to the microwatt range.

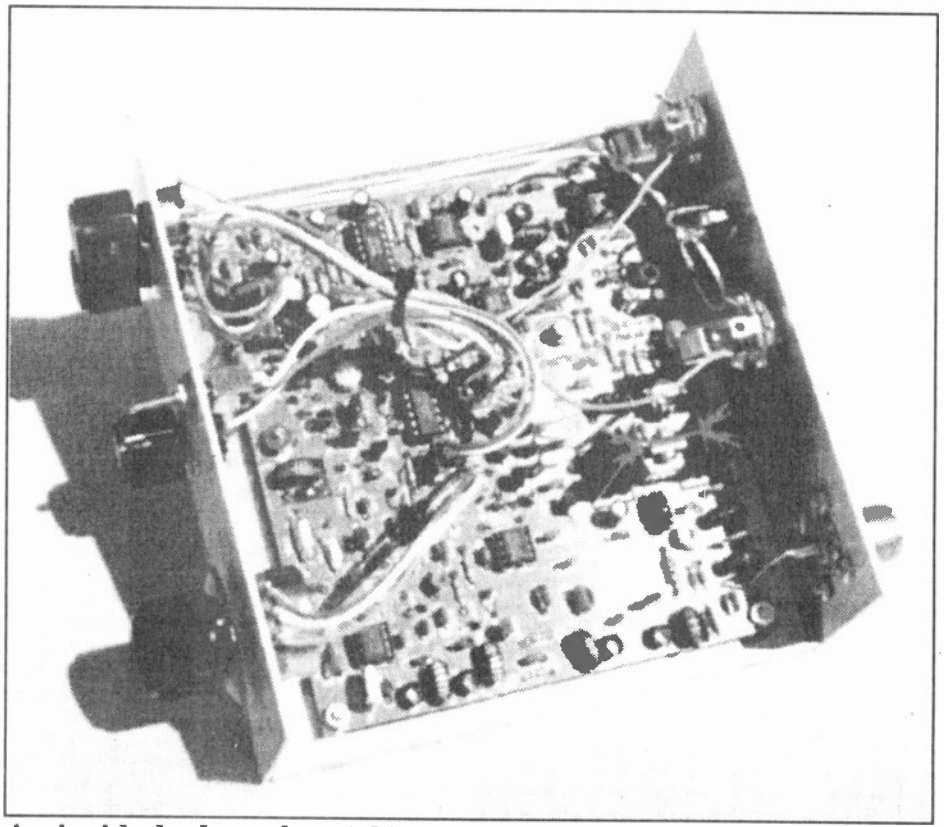
The VFO covers about 70 kHz of the CW band with high side injection. Tuning, via potentiometer, is smooth and linear. There's also switchable receiver incremental tuning (RIT) covering 1 kHz.

But the most intriguing feature of the '100 is its variable bandwidth filter, adjustable from 1,500 Hz to 350 Hz. Coupled with a high performance automatic gain control (AGC) circuit, the transceiver is a fabulous performer in crowded bands.

It's your choice: Leave the filter wide open and hear what's happening on 1.5 kHz, or narrow the bandwidth with the turn of a front panel control and quickly isolate a desired signal in even the most raucous circumstances. Peak things with the RIT, and you're really cooking.

Audio? You'll find plenty of it, compliments of a hefty LM380N-8 audio amplifier chip.

Yes, the transmit chain delivers everything even the most ardent QRPer would want. But it's the receiver that makes this rig such a standout.



An inside look at the 40 Meter version of Oak Hills Research's OHR-100 superhet QRP transceiver kit.

There is a price to pay for such nice features. It comes in the form of current drain — about 60 milliamperes on receive, 750 milliamperes on transmit. A fully charged battery pack, though, can still yield a good chunk of operating time even on a backpacking trip.

On-air tests show the OHR-100's VFO to be rock solid, with nice keying characteristics, CW note and the QSK that is fast and smooth.

The OHR-100's sidetone is adjustable in both frequency and volume using two on-board potentiometers.

The transceiver is built on a doublesided, plated-through printed circuit board of superb quality. It's silkscreened for easy parts identification and placement and measures about five and three-eighths inches wide by four and seven-eighths inches deep. While virtually no space is wasted, there's still plenty of room to work comfortably during construction.

Molex connectors are used at six strategic points on the PC board to make connection to off-board jacks and controls. So if for some reason you'd like to remove the board from the enclosure for inspection or modification, just pull off the Molex boots, de-solder the antenna and power connections and unscrew the board from four standoff spacers. Simple and quick.

In case there's any question that the OHR-100 qualifies as a truly homebrew project, there are 11 toroids to wind. The kit's well written manual thoroughly describes the

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winding process, so even builders with limited experience will likely find the road to inductance smooth and congestion free.

A 2N3866 drives a 2SC2078 transistor in the final, mounted on a large heat sink. It runs cool and clean and delivers the goods without getting hot or bothered. The construction manual, complete with large pictorials, schematics and diagrams, is organized in a step-by-step, check-the-box construction procedure. Parts installation begins with the lowest profile components and then calls for adding parts of increasing height. Each of the OHR-100's eight chips is mounted in a socket, so builders who are squeamish about soldering ICs need not worry.

The 40-meter version built here at KI6SN was put together in two stages. The board was stuffed during a spring skiing vacation to Colorado. That took several hours of relaxed — and welcomed — soldering while resting tired muscles between trips to the slopes.

The final assembly was performed upon return to Southern California. Putting the board into the case and doing final wiring took another hour or two. The radio, I'm certain, can be built in much less time. But seeing the care and attention Oak Hills Research put into developing this kit was incentive to take the time to do a first class job of building. A savory assignment, indeed.

Front panel controls include a 10K potentiometer for narrow-to-wide bandwidth adjustment, 10K pot for audio volume control including an ON/OFF DC power switch, 5K RIT pot accompanied by a separate RIT ON/OFF toggle switch, and 100K VFO tuning control. The front plate is cream colored, nicely lettered in black and beautifully laid out.

The back panel has a standard SO-239 coaxial antenna connector, and jacks for key or keyer, 12-volts DC, headphones, and oscillator output — for adding a digital frequency counter, if desired. There's also a potentiometer for power adjustment, which makes going from full power to microwatts as easy as turning the shaft. Again, crisp, clean panel lettering gives the OHR-100 a highly polished look.

A black cover completes the enclosure, affixed to the main chassis with four machine screws.

The ease of the OHR-100's construction belies the complexity of its circuitry, however. Proper alignment requires some fairly sophisticated test gear: a 30 MHz frequency counter with 10:1 probe, oscilloscope, QRP wattmeter, 50-ohm dummy load, and a main station transceiver. For $45, however, Oak Hills will do the alignment for you. I chose that route, and was not disappointed. It was money well spent, and the assurance from OHR that the rig was properly built and working to the company's specifications was an added comfort.

Be forewarned, though, that only fully completed kits built in accordance with OHR-100 manual procedures and soldering techniques are accepted for alignment at OHR.

Be forewarned, though, that only fully completed kits built in accordance with OHR-100 manual procedures and soldering techniques are accepted for alignment at OHR. In other words, the focus is on alignment, not troubleshooting and repair.

For those with the test gear and expertise to do the job, the OHR-100 manual details the alignment in a step-by-step procedure.

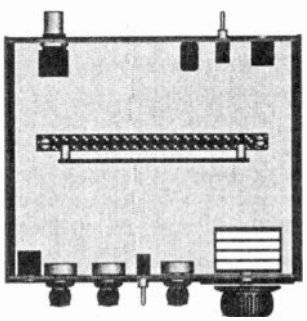
Without going into excruciating circuit detail, here is a rundown of integrated circuits found on the '100's board: four NE602AN double-balanced mixers, an LM324N quad operational amplifier, an LM380N-8 audio amplifier, MC1350P intermediate frequency amplifier, and a CD4066 quad switch. Operators who may be leery of the vulnerability of the NE602AN to strong signal overload needn't worry with the OHR-100. The receiver more than holds its own in the face of some monster signals and QRM copied on 40 Meters here in Southern California.

The OHR-100 transceiver kit is $129.95, plus shipping. The company frequently puts products in its growing kit line on sale, so it would be a good idea to check OHR's site on the World Wide Web for up-to-the-moment pricing information before ordering: (www.ohr.com)

You can also write: Oak Hills Research, 20879 Madison St., Big Rapids, MI 49307. Telephone: 616/796-0920, fax 616/796-6633.

In a long and distinguished line of fine transceiver kits, the OHR-100 is one of Oak Hills Research's finest packages yet. WR

The Sierra



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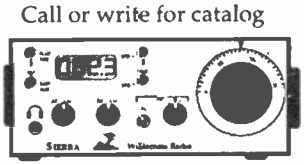

The Sierra is the only compact, low-current, multiband QRP transceiver available. It uses plug-in modules to cover all HF bands. There's no chassis wiring--all components, controls and connectors are mounted on a single board. The superhet receiver has 5 poles of crystal filtering, RIT, and AGC, yet only draws 35mA! Power out is 2 to 3 watts, with fast QSK and no relays. The prototype Sierra is featured on the cover of the 1996 ARRL Handbook, and lab test results can be found in the June, 1996 issue of *QST*.

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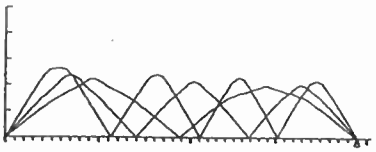

Carl Luetzelschwab, K9LA
1227 Pion Rd.
Ft. Wayne, IN 46845

Did you happen to catch the Associated Press news article in your local paper last January? I found it rather interesting, so let's go back and look at it.

The title of the item was "Sun may be quiet for the next 11 years." The story focused on the prediction by Yale University and NASA scientists that solar Cycle 23 may be one of the quietest and least violent in more than 400 years, with only a modest number of solar eruptions (sunspots).

This prediction was based on an analysis of solar magnetic field measurements. According to the article, findings show that the solar violence marking the last 50 years is decreasing and foretells of a cooler, more smoothly shining sun. The unusually high activity characterizing the last few solar cycles — allegedly the most active in the last 400 years — is, they say, about to subside.

The article goes on to give a brief summary of solar cycles and how they can affect things on earth: Drown radio communications, snuff out navigation signals, disrupt satellites, deplete the ozone, send surges along power lines, shutdown pipelines by electrically charging them, and cause climatic changes (the September 9, 1996 issue of *TIME* magazine devoted two pages to geomagnetic storms — a decent summary without getting too heavy). The article seemed to indicate that if these predictions come to pass, solar Cycle 23 will be going against a long trend in solar cyle activity.

If that was as far as you read, then you'd come away with the idea that Cycle 23 isn't going to be a big one. But if you kept reading, you would have seen that the last several paragraphs acknowledged that the prediction could be wrong. The first indication is the assertion that odd-numbered cycles are usually bigger than the even-numbered ones. Yet Cycle 22 was marked by many sunspots.

The second indication was the admission that if centuries-old statistical patterns continue, then Cycle 23 would be even more violent. The prediction of a quiet sun goes against history, and only time will tell whether the prediction is correct.

If it is correct, that's really disappointing for those interested in the higher HF bands (15M and 10M) and 6M. But remember they aren't betting the farm on this. So there is hope for those who want a big sunspot cycle.

Is anyone predicting a big cycle? You bet they are, as I mentioned in the February column. One of these predictions can be found on the Internet. This was brought to my attention by NM7M, who was alerted by W6EL. It's a 4-page paper with

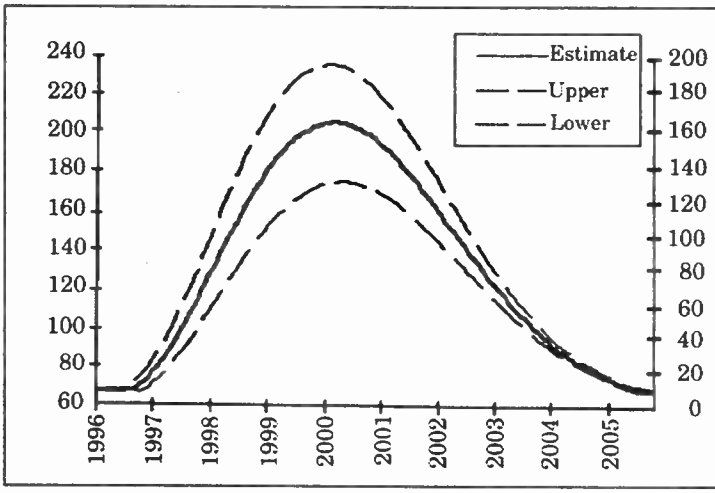

Figure 1. Predicted SSN and 10.7 cm Solar Flux for Cycle 23.

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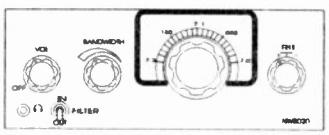

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several figures. For those who want to read all the details (and I recommend it), the address is: http://www.sel.noaa.gov/info/Cycle23.html

My summary of it follows.

Back in September of 1996, the NOAA Space Environment Center (SEC), with the support of the NASA Office of Space Science, recruited a scientific panel to assess

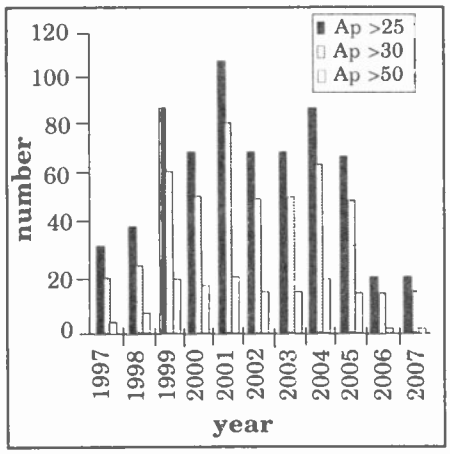

Figure 2. Predicted Geomagnetic activity for Cycle 23.

prediction techniques and arrive at a reasoned consensus, including uncertainty on how Cycle 23 will develop. The panel, consisting of 12 scientists from 10 agencies around the world, convened in Boulder, Colorado.

In advance of the panel meeting, forecasts of solar and geomagnetic activity were requested from the scientific community. Replies were considered by the panel along with forecasts published in the open literature. This a priori effort resulted in 28 forecasts which were separated into 6 classes according to the nature of the prediction technique used (remember the February column? I only mentioned the three biggies).

The predictions in these 6 classes were considered in detail and a representative prediction from each class was selected. Then the 6 predictions were combined to obtain a consensus prediction for the panel. Combining such different techniques was a difficult process and in doing so the panel made use of its experience and knowledge of the techniques and its success in predicting previous cycles (especially Cycles 21 and 22).

From this two-week meeting, Figure 1 was the result for the predicted sunspot number. It gives the estimated Cycle 23 profile of smoothed sunspot number and smoothed 10.7cm flux. It also has the low and high estimate on it — the uncertainty.

They also predicted geomagnetic activity for Cycle 23. To do this, they used a combination of a climatological approach based on the 128-year record of the aa index (the antipodal a index), and a precursor approach that used the counts of disturbed days based on Ap (planetary A index), which has been archived since 1932. Figure 2 is the result for this aspect of Cycle 23. It gives the number of disturbances expected versus Ap categories by year.

Figure 1 says Cycle 23 is going to be a another big one in terms of smoothed sunspot number. It should be comparable to the last two cycles. Figure 2 says the geomagnetic activity is also expected to be comparable to recent cycles, resulting in annual average levels among the highest in the 128-year record.

So this prediction by consensus from a gathering of the scientific community at Boulder is contradictory to the prediction given in the Associated Press article. That shouldn't come as a surprise, as it's hard to predict something that's not fully understood. For the record, I'll side with the Boulder guys. Hey, I'm a big 10M enthusiast (as you'll find out in future columns), so the more the sunspots the better — even if there are more disturbances.

To close this month's column, I'd like to make my own sure-fire prediction for Cycle 23. My prediction is that there will be a Cycle 23. You can take that to the bank!

Correction

In my April column, I said that the electrons that cause auroral ionization came directly from the sun. Not so. NM7M advises that the electrons in the solar wind have energies in the .25 eV range, whereas auroral electrons are up in the tens of keV range.

The extra boost comes from the magnetosphere, which is a big accelerator. WR

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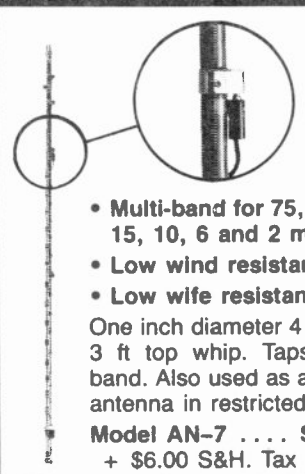

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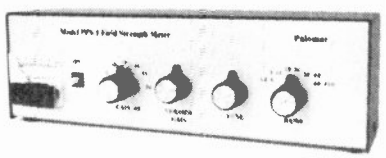

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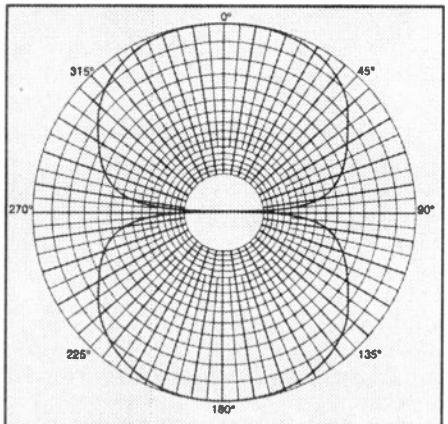

AERIALS

Kurt N. Sterba

We'd like to thank the many, many who have written in. Letters have arrived from some highly educated and learned readers in this field. Each deserves the courtesy of a reply. To do so, however, would be an impossibility. So please accept this blanket "thank you."

And now, a potpourri of items. When making field strength measurements, try to have as much separation between transmitter and receiver as possible. Anything under three full wavelengths is laughable. Ten wavelengths (or more) is preferable.

Speaking of field strengths, if I were running one of those mobile shoot-outs here is what I'd do. I'd take the transmitter output through a wattmeter and into a 50-ohm dummy load. I'd measure the output, say 50 watts. Then the feedline and the mobile antenna would be connected and the field strength reading taken. I would not do any correction for SWR. My attitude is, if you come to this competition with some squishy junk you are just going to have to live with it — just lump it.

There are those who say I am mean-spirited. That's far from the truth. I will now prove what a thoughtful person I am in saving some readers thousands of dollars. I saw in the Ramsey catalog a blurb about a microphone they sell for $2.95. They said, "the size of an aspirin tablet and the fidelity of a full-size studio mike." So, any of you who are in the recording industry who were about to pop for a $2,000+ Sennhauser studio mike can just send $2.95 to Ramsey instead. Look at all the money I saved you.

Controversy seems to be raging between the advocates of the usual 120 radials (on or below the ground) for the vertical antenna and those who claim equal or better results for the vertical with only four radials but elevated off the ground. I nominate the 120 group for membership in the Flat Earth Society.

The size of the necessary antenna keeps a lot of amateurs from sampling the joys of the 75/80 Meter band. For many, the installation of a 134-foot-long dipole seems an insurmountable task. Here is a solution: Put up a 134 ft. dipole but with the flattop only 30 feet long and let each of the two ends drop 52 feet. For many that is also impractical. Well, how about dropping the end 26 feet and then bring the wire back up (at an angle) so that it looks like a triangle (of wire) on each side of the feedline? As you well know, low dipoles have a high angle of radiation. To be able to reach out, a lower angle is necessary. An inexpensive way of doing that is to tip the dipole over into the vertical orientation. It is now center-fed, the feedline is horizontal to the ground on the way to the shack. With cord or fishing lines, the ends of the 26- foot wires could be tied to the house or trees. The longer you can make the vertical section the better, on 80M a length of 44 feet would be nice, but whatever you can do is better than not doing at all. On 40M a 22- foot center section would do well and on 20M an 11-foot section should not alert the prying eyes of nosey neighbors.

Another answer may be the full wavelength loop. While 72 feet on a side (square) may seem a bit daunting to most there is an answer: Loading coils. As a rule of thumb, for each foot you wish to shorten an antenna you need two feet of wire in the coil, but you don't get something for nothing. The coils will burn up, (in heat) some of the transmitter power and the bandwidth of the antenna will narrow as you shrink the antenna. But, as I say, it will be far better than no antenna at all.

One of the brighter sorts writing in, who gave hearing tests for many years, said that the average person could not hear a two dB difference. You have to really mess up an antenna system to drop 2 dB.

Answering a question in the mail: There is nothing made today as good as the old Johnson KW matchbox. For a manufacturer to duplicate one would require a price only a very few would care to pay.

Safety tip: Be very careful in winding your tower up or down. If your hand slips, the handle could (and does) flip around and break hand and arm.

I will never buy a Diamond, Daiwa, Nye Viking or Vectronics (VCI) product. My reason? I don't like the fact that their wattmeters have a range up to 3,000 watts. The Yaesu, MFJ and others all stop at far less. Nor do I care for amplifiers marketed to the amateurs that have light bars indicating up to 2.5 kW output.

While they are quite small I continue to hear good things about the Isotron antennas. A W3 recently said he was "amazed by its performance." He went on to say that "at a height of 12 feet it works great and compares favorably with my long and high antennas."

There must be some explanation. A famous antenna company in their own slick catalog has a dB gain number for one of their antennas. However, in their material appearing in the catalogs issued by the ham stores the very same exact antenna has a gain figure that is 1.8 dB higher. Puzzling indeed.

23 Skidoo magazine has been advertising (for $295) an FM transmitter with 1/2 watt output that goes right into the FM broadcast band. This is exactly the thing to buy and use if you want the FCC to tear up your ham ticket.

(The masked couple will return soon with one of the most startling improvements you can make to your station — and the cost is nothing.) WR

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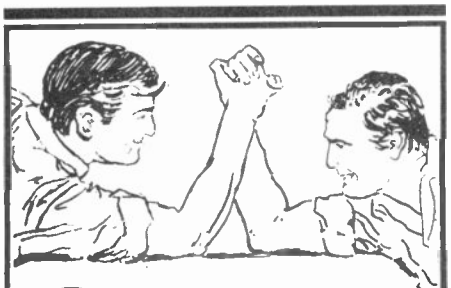
World Radio History



Contest Corner

Don Durk, KA1DWX

76226.1414@compuserve.com

Express yourself

...An observation on a recent contest weekend I participated in: It is really boring to work machines all over the world sending identical, unaesthetic CW! Don't misunderstand me, the best contest scores can be had this way and the record keeping sure is nifty, but good grief, it's boring! I wish to thank all of you who send Morse code in your own fashion-fast, slow, with and without errors. It's kind of like penmanship one can sense things about the sender. Our CW rhythm, spacing, etc., tells the receiver a bit about us all the machine code clearly tells us — is that it's machine generated! Thanks!

August marks the start of the contest season for the Northern Hemisphere. If you review the summer Contest Corner calendars you'll notice that the Southern Hemisphere contests usually take place May through August. Why? Because it's winter in the Southern Hemisphere and winter brings the lowest level of thunder boomers to the Southern Hemisphere.

The WAE (Work All Europe) CW test starts the season. This is a favorite contest for the finest CW ops in the world! Not only is a routine contest exchange-RST+ number-required but extra points are earned for exchanging info on your last 10 Qs. It's a real CW lovers dream!

Get logs in within 15-30 days! Electronic logs are often accepted provided the format is as specified. Usually ASCII or CT.BIN Hex files are okay. Most contests require separate logs per band, check sheets for over 200 Qs, a summary sheet and a signed & dated affidavit attesting to observance of the rules of both the contest and your local regulating authority. A statement wherein you agree to be bound by the decisions of the contest committee is also needed. All times are in UTC. WARC bands excluded.

Check out the Indiana Radio Club Bison Stampede and the W/VE islands contest! Remember to watch for Sporadic-E on 6 and 10!

Late July 'tests

(see July ***Worldradio*** magazine for details)

•YV CW DX 'test
26 July 00:00-27 July 24:00
(RST+number)

•Russian RTTY WW 'test
26 July 00:00-27 July 24:00
(RST+CQ zone or 2 letter oblast abr. for Russian stns)

•RSGB IOTA (Islands on the Air) **SSB/CW 'test** 26 July 12:00-27 July 12:00
(RS(T)+number+IOTA reference # if island station)

•Bumble Bee CW QRP 'test
27 July - 4 hrs. starting at 10 a.m. PDT, 11 a.m. MDT, 12 a.m. CDT and 1 p.m. EDT
(RST+state/prov/DXCC country + name)

August 'tests

•ARRL UHF All mode 'test
02 August 18:00-03 August 18:00
(Grid Square Locator)
Q 1 x per band above 222 MHz or 432 MHz Q; 6 for ea. 902 or 1296 MHz Q; 12 for ea. 2.3 GHz or higher Q) x mults (total number of different grid squares worked per band). Single op multi band; single op single band; rover -1 or 2 ops moving among 2 or more grid squares-sign /R on CW and 'rover' on voice; multi op. See *QST* for additional details/ restrictions. Participation awards and $5 pins for 5 Qs or for multi ops. ASCII ARRL format. BBS to: 360/594-0306; Internet, contest@arrl.org. ARRL

•EU HF SSB/CW Championship
Only EU TO EU Qs
03 August 10:00-22:00
(RS(T)+2 digits — the last two digits of the year 1st licensed)
Q 1x per band if CW or SSB entrant or 1x per mode if SSB/CW entrant. Score= pts (1 for SSB, 2 FOR CW) x mults (1 for each different last two digit numbers rcvd per band). Slovenia Contest Club, Saveljska 50, 61113 Ljubljana, Slovenia

•Indiana Radio Clubs Bison Stampede Phone/CW 'test
02 August 18:00-03 August 02:00
(RS(T)+county for IN stns or state/prov/DXCC country for non-IN stns)
Q 1x per band per mode and per county 1.8 MHz-446 MHz. Fqs: CW-50 kHz up + 21.120; SSB/FM: 3.890, 7.290, 14.290, 28.390, 50.129, 52.525, 144.2, 223.5 and 446.0 MHz. Score-pts (2 pts CW; 1 pt phone) x mults (total IN counties worked for non-IN stns, for IN stns-counties+states+provs+a max of 5 DXCC countries as mults; more than 5 DXCC Qs count as added pts). Mobiles from more than one county count as new county and points. Mobiles cannot operate from more than one county at a time. No repeater Qs. IRCC Bison Stampede, P.O. Box 18495, Indianapolis, IN 46218.

•NAQP CW 'test
02 August 18:00-03 August 06:00
(Name + state/VE call area/NA country)
Q 1x per band. 160-10.
Fqs: 1.815, 35 kHz up 80-10. Non-NA countries do not count as mults but do count for QSO credit. Score-pts (Qs) x mults per band (states including KH6 and KL7+12 VE Provinces+other NA countries [Do not count U.S.A., Canada, KH6 and KL7 as countries] okay to Q non NA countries for QSO credit). Single op/multi op 2 trans/pre-registered teams. 150W max out. Single ops max 10 hrs. Off times at least 30 mins and noted in log. NCJ/QST. Logs-W9NQ-6200 Natoma Ave., Mojave, CA 93501.

•QRP ARCI Phone Sprint
Check w/Cam, N6GA for time and details
CamQRP@cyberg8t.com

•TEN-TEN Summer SSB 'test
Call/ write WØRTV for details.

•YO SSB/CW DX 'test
02 August 20:00-03 August 16:00
(RS(T)+ITU zone not CQ Zone.

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World Radio History

YO stns send 2 letters for county)

Q all stns not just YO. Q 1x per band 80-10 Meters. Score- pts (2 for own continent; 4 for different continent; 8 for YO stns; O for own country but mult OK) x mults (YO counties + ITU zones per band). Counties: YO2-AR, CS, HD, TM; YO3-BU; YO4- BR, CT, GL, TL, VN; YO5-AB, BH, BN, CJ, MM, SJ, SM; YO6-BV, CV, HR, MS, SB; YO7-AG, DJ, GJ, MH, OT, VL; YO8BC, BT, IS, NT, SV ,VS; YO9-BZ, CL, DB, GR, IL, PH, TR. Single op, single band; single op, multi band; multi op. 10 min rule. Separate logs per band. Romanian Federation of Radio Operators, P.O. Box 22-50, R-71100, Bucharest, Romania

•MD/DC Phone/CW/RTTY QSO Party

9 August 16:00-04:00 and 10 August 16:00-23:59 RS(T)+ (For MDC Stns-Category: standard, QRP, mobile, Novice, Tech, club) or state/prov/DXCC country for non MDC stn. Q 1x per mode (CW and RTTY are 1 mode), 80-2 Meters. Simplex 2 Meters & up. CW: 3.643 and 35 to 40 kHz up + 3.701, 7.126, 21.115. SSB: 3.92; 7.23; 14.25; 21.37; 28.38; 50.15; 146.55. Score- pts (10 for club stn; 5 for mobile; 4 for QRP or Nov/Tech; 3 for CW/ RTTY; 1 for other Q) x mults (For MDC stns-up to 25 MDC mults+ state/prov/DXCC country; For non MDC stns-up to 25 MDC mults [ea MD county+DC+ Baltimore City]). Mults are one time only not per band! Antietam Radio Assn., P.O. Box 52, Hagerstown, MD 21741.

•WAE CW 'test

9 August 00:00-10 August 24:00 (599+number)

Q 1x/band. 3.5-28 MHz NO WARC BANDS. 36 hour max for single ops. Off time at least 1 hr. The 12-hour off time must be taken in not more than 3 rest periods and indicated clearly in the log. World Qs EU only. EU Qs outside EU. Non EU may send QTCs (but not more than 10) to each EU stn (It's okay to send the 10 spread out in 2 groups of 5; 3 groups of three and 1 group of 1, etc.) A QTC is info on a prior Q with an EU stn. The format is Grp 1/10, 2/10, 3/5, 4/5 etc., this means your first group having ten exchanges, your fourth group having 5 exchanges etc. You then send time/stn/nr for example 0001/DJ6QT/020 0002/DL1IAO/034 0004/DJ6RB/023 etc.

EU stns receive no more than ten QTC from each station outside EU. Score- Nbr of QSOs + QTCs x mults (Non EU = Nr of EU countries per band [WAE Country List] x 2 for 14/21/28; x 3 for 7 MHz; x 4 for 3.5 MHz. EU stns= 1 mult per band for each non-EU country per DXCC list.)

WAE Countries: C3, CT, CU, DL, EA, EA6, EI, ER, ES, EU, F, G, GD, GI, GJ, GM, GM (Shetland Isls.), GU, GW, HA, HB9, HB, HV, I, IS, IT, JW (Bear); JW (Spitsbergen), JX, LA, LX, LY, LZ, OE, OH, OJ, OK, OM, ON, OY, OZ, PA, R1/FJL, R1/MVI, RA, RA2, S5, SM, SP, SV, SV5 (Rhodes), SV9 (Crete), SY, T7, T9, TA1, TF, TK, UR, YL, YO, YU, Z3, ZA, ZB2, 1A, 3A, 4U1 (Geneva), 4U1 (Vienna), 9A and 9H.

Single op all bands/ multi op single transmitter/SWL. Club competition. Packet cluster allowed. Check sheet for >100 QTCs. Separate logs per band, 40 Qs per page. Dupe sheet for ea. band w/200 or more Qs. MS-DOS disks ASCII files okay. Certs and plaques. E-mail: 100712.2226@compuserve.com. WAEDC, P.O. Box 1126, D-74370 Sersheim, Germany.

•NAQP SSB 'test

16 August 18:00-17 August 06:00 (Name + state/VE call area/NA country)

See NA QSO Party CW above

Fqs: 1.865, 3.850, 7.225, 14.250, 21.300, 28.450. *NCJ/QST*. N4TQO, 1795 Craven Lane, Carpenteria, CA 93013

•SARTG RTTY 'test

16 August 00:00-08:00/16:00-24:00 and 17 August 08:00-16:00 (RST+number)

Q 1x per band, 80-10 Meters. Score-pts (5 pts for own country; 10 for own continent but different country; 15 for different continent [note-each call area in JA, VE, VK and W counts as a separate country i.e., 10 pts if you are in these countries and contact a different call area in your country!]) x mults (DXCC country including first QSO w/ JA,VE,VK and W. Each call area in JA, VE, VK and W count as mult. Classes: A. Single op all band; B. Single op single band; C. Multi op single xmtr all band; D. SWLs all band. Club competition. Sep logs for ea band. Summary sheet. SM4CMG. '96 Results- congrats to NA Stns and clubs: In top 20 single ops-Ron, AB5KD, NO2T, N2DL and N1RCT. In Multi ops-AA5AU (4th), AF4Z (6th), VE6KRR (7th). Clubs- Central TX DX Contest Club (6th), BARA (8th).

•NJ Phone/CW QSO Party

16 August 20:00-17 August 07:00 & 17 August 13:00- 18 August 02:00 (RS(T)+number+state/prov/DXCC country or county if NJ stn)

Q 1x per mode 160-2 Meters. CW: 1.810 and 35 up, 7.135, 21.100, 28.100. SSB: 1.810, 3.950, 7.235, 14.285, 21.355, 28.400. 160@05:00, 50-50.5, 144-146. Try 15/10@1500, 1700, 1900 and 2100. Score- pts (3 per NJ Q for non NJ stns and 3 per Q for NJ stns) x mults (Non NJ stns -NJ counties [Max 21]; NJ stns - NJ counties+state/prov/ DXCC country). Certs and plaques. EARA, P.O. Box 528, Englewood, NJ 07631-0528.

•ARRL 10 GHz 'test

16 Aug 8 a.m. local-8 p.m. local 17 August 8 a.m. local-8 p.m. local

This is a two weekend test, the second weekend 20-21 Sept. (Send 6 character maidenhead locator-see *QST* April '94 p. 86; signal rpt optional). Two categories: A) 10 GHz; B) 10GHz and up.

Q 1x per location per band. A different location means a move of at least 16 km (10 miles). Do not duplicate same location Qs on second weekend. A second Q from a different location from either party is okay however, prescheduling of Qs is recommend. Try 7 p.m. local on 3.818 the Tue, Wed+Thur before the test or monitor 144.230 + 146.550 MHz during the test Ck *QST* for details. Awards. *QST*.

•W/VE SSB/CW Island 'test

16 August 17:00-17 August 23:00

(RS(T)+state/prov/DXCC country for non-island stns or USI/CISA island number + island name Q 1x per mode per band. Island stns Q all. Non-island stns Q only island stns. Score-pts (5 for non island stns Qs w/ island stns; for island stns 5 for Qs w/ island stns, 1 for non island Qs) x mults (ea different state/prov or territory). Classes-A1-U.S. island; A2-VE island; B1-U.S. non-island; B2-VE non-island; B3-DX non-island; C1- U.S. island rover; C2-VE island rover. SASE w/ entry. Certs and plaques available for fee. NL7TB.

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World Radio History

•Keymen's Club of Japan 'test
CW of course! 16 August 12:00-17 August 12:00

(RST+prefecture [62] for JA, Continent code [AF, AS, EU, NA, OC, SA] for others) Q 1x per band 160-10. Score- pts (1 per Q) x mults (up to 62 prefectures per band [372]). Fqs: 1.908-1.912; 3.510-3.525; 7.010-7.030, 14.050-14.090; 21.050-21.090; 28.050-28.090. JA prefectures: 1-CB, GM, IB, KN, ST, TG, TK, YN; JD1-OG, MT; 2-AC, GF, ME, SO; 3-HG, KT, NR, OS, SI, WK; 4-HS, OY, SN, TT, YG; 5-EH, KA, KC, TS; 6-FO, KG, KM, MZ, NS, ON, OT, SG; 7-AM, AT, FS, IT, MG, YM; 8-AB, HD, HY, IR, IS, KK, KR, NM, OM, RM, SB, SC, SY, TC; 9-FI, IK, TY; O-NI, NN MS DOS ASCII files okay. Certs. Congrats to N6MU numero uno Worldwide in '96! JA1DD.

•SEANET SSB 'test
16 August 00:00 -17 August 24:00 (RST+number)

Q 1 x per band 160-10 Meters (no warc). SEANET countries: A4, A5, A6, A7, A9, AP, BV, BY, DU, EP, HL, HS, JA, JD1, JY, KH2, P29, S79, VK, VQ9, VS6 VU, V8, XU, XV, XW, XX9, YB, ZK, ZL, ZL9, 3B6, 3B8, 4S7, 4X, 8Q7 9K2, 9M2, 9M6, 9N, 9V. Score- pts. (1 pt per Q w/SEANET country except your own country then no point but okay for mult) x mults (total nr of SEANET countries x 3). 9M2FK, P.O. Box 13, 10700 Penang, Malaysia.

•TOEC WW CW Grid 'test
23 August 12:00-24 August 12:00 (RST+GRID)

Q all stns not just EU. Q 1 x per band 80-10 Meters. Okay to Q/m at each different grid field per band for new mult but not for added points. Score- pts (fixed stns-3 for other continent; 1 for own continent or own country; mobile-3 pts per Q) x mults (grid fields per band). Packet = multi op. Categories: Single op all band/ single band/low power (100W out) all band// multi op all band//multi transmitter// mobile -1 op all band. Top of Europe Contesters, Box 2063, S-831 02, Osterland, Sweden.

•HANDI-HAM Activity Day
30 August 12:00-24:00

(RS(T)+QTH+name and member or non-member

Q 1x per band not mode 80-10 Meters. Fqs: 3.675-3.750; 3.875 -3.950; 7.1-7.150; 7.250-7.280; 14.025-14.100; 14.270- 14.300; 21.025-21.200; 21.350-21.400; 28050-28.500. Score- pts (5 for Q w/HANDI-HAM HQ stns WD8ZSW and WD8EQ; 2 for Q w/ HANDI-HAM member; 1 for non-member Q). Certs. SASE 5"x7" envelope. J. Whittaker, 3019 O'Henry Road, Brooklyn Center, MN 55429-2220.

September 'tests

9/6 Weekend
•All Asian SSB 'test
•LZ DX CW 'test
•AGCW Straight Key Party
•IARU Region 1 SSB Field Day
•North America CW Sprint
•Panama Anniversary SSB 'test
•Digital DARC Corona 'test
9/10-12
•YLRL Howdy CW/SSB Days
9/13 Weekend
•ARRL Sept VHF Party
•WAE SSB 'test
•North America SSB Sprint
9/20 Weekend
•ARRL 10 GHz Cumulative 'test
•Scandinavian Activity CW 'test (SAC)
•Washington State Salmon Run CW/SSB
•Atlantic SSB QSO Party
9/27 Weekend
•Scandinavian Activity SSB Contest (SAC)
•CQWW RTTY DX 'test
•Tenn SSB/CW QSO Party

October 'tests

10/4 Weekend
•UCWC CW 'test
•VK/ZL SSB Oceania 'test
•F9AA CW/SSB CUP 'test
•EU SSB Autumn Sprint
•Int'l Hell 'test
•CA SSB/CW 'test
•Ibero-American SSB 'test
•RSGB 21/28 MHz SSB 'test
10/8-10/11
•YLRL CW Anniversary Party
10/11 Weekend
•PA SSB/CW QSO Party
•VK/ZL CW Oceania 'test
•QRP ARCI Fall QSO Party
•EU CW Autumn Sprint
•FISTS Fall Sprint
10/18 Weekend
•ARRL EME 'test part 1
•JARTS WW RTTY 'test
•Asia Pacific CW Sprint
•Worked All Germany SSB/CW 'test
•RSGB 21/28 MHz CW 'test
•IL SSB/CW QSO Party
10/22-10/24
•YLRL SSB Anniversary Party
10/25 Weekend
•CQWW SSB 'test **WR**

ET3

The *Daily DX* reports ET3SID in Ethiopia has been heard on 14.082 MHZ CW working Europe and east coast U.S. stations on RTTY from 12:30 to 13:30 UTC. He went to SSB on 14.284. *—via The DX News Sheet*

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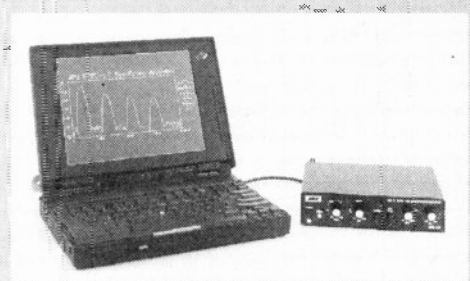

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World Radio History

Hamfests August

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!

Alabama

The **Huntsville Hamfest** will be held 16 and 17 August from 9 a.m. to 4 p.m. (both days), at the Von Braun Civic Center, 700 Monroe Street in historic downtown Huntsville. Setup will commence on the 16th from noon to 9 p.m., and the 17th from 7-9 a.m. Over 6,000 people are expected to attend. For more information, contact Art Davis, WB4KKA, at 205/883-0477 or view our web page at www. hamfest.org You may also write: Huntsville Hamfest, P.O. Box 12534, Huntsville, AL 35815.

California

The **Livermore ARK** will hold a swap meet on 03 August from 7 a.m. to noon at Las Positas College, 3033 Collier Canyon Rd., Livermore, CA (Airway Blvd., exit to north of 580 highway). Features include new, used, surplus ham, computer gear, miscellaneous electronics and testing equipment, refreshments available. Admission and parking are free; vendors $10 per space (equals two parking spaces). No VE exams. Contact Noel Anklam at 510/447-3857 (eves.) or 510/783-2803 (days). Talk-in on 145.350(-) PL 100 (receive and send), 147.045(+) PL 94.8, 147.120(+) PL 100.

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The **River City ARC** will hold a radio swap on 16 August from 6:30 to 11:30 a.m. at Bella Vista High School, 8301 Madison Avenue in Fair Oaks. Refreshments and a prize drawing will be available. Admission and parking are free, vendors $10 per space. For information, contact Lewis, AC6QP, at 916/771-2337 or e-mail at ac6qp@softcom.net Talk-in on 145.250(-) PL 162.2.

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The **Humboldt ARC** will hold the Northern California Regional Redwood Country Hamfest 02-03 August from 9 a.m. to 5 p.m. (Sat.) and 9 a.m. to 3 p.m. (Sun). Setup on Friday 1-8 p.m. This event will be held at the Redwood Acres Fairgrounds in Eureka. Admission is $3/day or $5/both days. RV spaces available on site ($15 and $10, call 707/445-3037). Swap tables $10 per day (add $5 for electricity). VE testing available. Mail requests to HARC, P.O. Box 5251, Eureka, CA 95501. Talk-in on 146.85(-) and 146.70(-) PL 103.5.

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The **Mt. Shasta ARC** will celebrate its 50th anniversary with a swap meet on 02 August from 10 a.m. to 3 p.m. at the Mt. Shasta City Park. All Amateur Radio operators and their families are invited. An open house will be held at the club "shack" at 329 Washington Drive. The MSARC will provide a free lunch (donations accepted) from 12 noon at the City Park, located approximately one mile north of downtown, just off North Shasta Blvd. For more information, contact Rich Zanni, KJ6RA, P.O. Box 601, Mt. Shasta, CA 96067; 916/926-1237. Directions available at 146.820 MHz.

Connecticut

The **Eastern VHF/UHF Society** will hold its 1997 Conference 22-24 August at the Harley Hotel in Enfield. This conference will continue the publication of amateur experimentation and operating development in the VHF and above spectrum. The Society works with several regional active VHF organizations to further this effort in the North American Eastern continental region. For more information, contact Fred Stefanik, N1DPM, 413/569-0116, ext. 211.

Florida

The **Greater Jacksonville Amateur Radio & Computer Show** will host the 1997 ARRL National Convention on 02 (9 a.m to 5 p.m.) and 03 (9 a.m. to 3 p.m.) August at the Osborn Convention Center near the junction of I-10 and I-95 in downtown Jacksonville. Many forums and programs will be presented. A banquet is scheduled for 7 p.m. on Saturday.

Registration for the entire weekend is $8 which includes parking in the main lot. For more information, visit our website at http://users.southeast.net/~jrmoore/hamfest.html or write: Greater Jacksonville Hamfest Assn., P.O. Box 27033, Jacksonville, FL 32205. For swap reservations, contact Karl Hassler, N4DHG, 2767 Scott Cir., Jacksonville, FL 32223; 904/268-2303. Tables are $25 each for the weekend. VE exams for all grades will be given on Sunday at 9 a.m. (walk-ins are welcome).

Illinois

The **Hamfesters Radio Club, Inc.** will hold a hamfest on 03 August, from 6 a.m. (setup 3-11 p.m. on the 2nd) to 3 p.m. at the Will County Fairgrounds in Peotone. Features include exhibitors and convenient unloading and overnight parking. Admission is $4/advance or $5/gate. Send reservations and check payable to "Hamfesters Radio Club," to Dave Brasel, NF9N, 6933 W. 110th St., Worth, IL 60482.

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The **Western Illinois ARC** will hold a hamfest on 02 August from 8 a.m. to 2 p.m. at Eagles Alps, 3737 N. Fifth St., Quincy, IL. Admission is $2.50/advance, $3/gate. Lunch will be available. Free tailgating, dealer tables available for $5 (contact N9JF for table reservations at 217/336-4191). Friday evening setup permitted. Off-site VE testing (contact NA9Q, 217/224-8526 for testing information).

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The **DuPage ARC** will hold a hamfest on 10 August from 8 a.m. to 2 p.m. (vendor setup 6 a.m./commercial setup 3-6 p.m. on Saturday), at the Hawthorne Race Course, 3500 S. Cicero, Stickney. Admission is $4/advance, $5/door. Food, refreshments, free parking, hourly door prizes. For table availability, call 630/985-9256. Send checks payable (by 30 July) to DARC and send with SASE to: Hamfest '97, 7511 Walnut Ave., Woodridge, IL 60571. Talk-in on 145.25(-).

Indiana

The **Lakes ARC** will hold a hamfest on 03 August from 7 a.m. to 2 p.m. (vendor setup 3-10 p.m. on Sat. and 4-7 a.m. on Sunday) at the Steuben County 4-H Fairgrounds in Angola. For more information, contact Sharon Brown, WD9DSP, 219/475-5897 or wnbrown@dmci.net VE testing for all classes. Talk-in on 147.18(+).

Iowa

The **Great River ARC, Iowa Antique RC** and **Historical Society** and the **Tri-State Computer Users Group** will hold a hamfest/radiofest/computer expo on 31 August from 8 a.m. to 2 p.m. at the Dubuque County Fairgrounds on Old Highway Road, west of Dubuque. Features include free parking, refreshments, dealers, flea market, tailgating and VE exams at 10 a.m. Ad-

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mission is $3/advance and $5/door (12 and under are free). Tables (8') are $8. Contact Loren Heber, NØYHZ, 319/556-5755 or Jerry Lange, KBØVIK, 319/556-3050, or Jerry Ehlers, NØNLU, 319/583-1016. Write GRARC, P.O. Box 546, Dubuque, IA 52004-0546. Talk-in on 147.84(-).

Michigan

The **Copper Country Radio Amateur Assoc.,** will sponsor the 1997 Upper Peninsula Amateur Radio Convention, better known as the U.P. Hamfest on 02 August from 9 a.m. (vendors 7 a.m.) at the City of Houghton's Dee Stadium facility, located on the downtown waterfront. The main floor will have drive-in access for unloading. AC power is available at table sites by previous arrangement only. Tables are $6/full table and $4/half table. Vendors with special needs (such as ISDN lines or power) should contact us as early as possible. Food and refreshments will be available on site.

For hamfest information, contact Roland Burgan, KN8XI; 906/482-2403, e-mail rburgan@up.net, Packet: KB8XI@ W8YY.#UPMI.MI.US.NA

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The **Eastern Michigan ARC** will hold a swapfest on 03 August from 8 a.m. (vendors 6 a.m.) to 1 p.m. at the Saint Clair Co. Community College Student Center in Port Huron. Features include DX and QRP forums, QRP demo, VE exams. Admission is $3/advance , $4/door. For information write: EMARC, P.O. Box 611230, Port Huron, MI 48061 or e-mail kb8wmw@ juno.com. Talk-in on 147.30(+) and 146.52(S).

Minnesota

The **St. Cloud ARC** will hold a special Hamfest "97," to commemorate the radio clubs' 75th year. It starts with a banquet on 09 August at 7 p.m. The hamfest will be from 8 a.m. to 2 p.m. at the Whitney Senior Center. VE testing will be held at 10 a.m. For information and reservations (including tables), call Charlie Grafft at 320/251-8008. Talk-in on 147.015(+) or 146.940(-).

New Jersey

The **Somerset County ARS** will host its annual hamfest on 23 August from 8 a.m. to 1 p.m. at the Somerset County 4H Center in Bridgewater. Admission is $5 (XYL and children under 12 are free). Indoor tables $20 w/electricity (reservations required), $15 without. Outdoor tailgating $10/space. Contact SCARS, P.O. Box 742, Manville, NJ 08835 or Pat, N2CQM at 908/873-3394. Talk-in on 147.135(+) PL 151.4.

New York

The **Auburn ARA** will hold a hamfest on 02 August from 8 a.m. to 4 p.m. at the Cayuga County Speedway-Fairgrounds, Route 31, Weedsport. From Thruway, take Route 34 south to Route 31 east, approx 1/2 mile on the left. Watch for signs. Admission $5, indoor vending $10, outdoors $6. VE testing, handicapped accessible, refreshments, music. Free parking. For information, contact Ken Johnson, N2TRP, 84 Chapman Ave., Auburn, NY 13021; 315/258-0169. Talk-in on 147.00(-).

Ohio

The **Paulding County ARG, Inc.** will hold their 7th annual hamfest on 10 August at the Paulding County Fairgrounds, on Fairgrounds Road in Paulding. Gates open at 6 a.m. for setup. Admission $3, inside tables $8 (includes one admission), additional tables $5. Outside spaces $5 (includes one admission). Food available. Overnight camping is free. For all information, contact Jerry, KB8MAF, PCARG, Inc., 10392 SR 500, Paulding, OH 45879; 419/399-4507 or e-mail jlrhod@ Bright.net Talk-in on 146.46(S), 146.865(-) repeater.

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The Voice of **Aladdin ARC** will hold their 7th annual Columbus Hamfest on 02 August from 8 a.m. (vendors 6:30-8 a.m.) to 3 p.m. at the Aladdin Shrine Facility, 3850 Stelzer Rd., Columbus OH 43219. Features include commercial exhibits, flea market, refreshments, door prizes. Admission $5, indoor display tables (6') $6/advance, $8/door. Outdoor flea market spaces, $3. VE session 10 a.m. (advance registration requested but not required). For tickets, send check (by 23 July) payable to: Voice of Aladdin ARC to: Jim Morton, KB8KPJ, 6070 Northgap Dr., Columbus OH 43229; 614/846-7790. Talk-in on 147.84(-).

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The **Portage ARC** will hold their Hamfair '97 on 03 August from 8 a.m. to 4 p.m. at the Portage County Fairgrounds in Randolph (located between Akron and Youngstown, on State Route 44, 4 miles south of I-76). Indoor vendors and a huge flea market plus unlimited free parking. Admission $4/advance, $5/gate. Indoor tables $10 each, flea market spaces $3. For reservations or information and tickets, contact Joanne Solak, KJ3O, at 330/274-8240. Talk-in on 145.39(-).

Oregon

The **Central Oregon DX Club** will hold a ham radio and computer hobbyist swapfest on 10 August, from 9 a.m. to 4 p.m. (setup 6-9 p.m. Saturday and 6-8 a.m. Sunday), at the Deschutes County Fairgrounds in Redmond. Take Highway 97 and follow the signs to the fairgrounds. Admission $5, tables $8 ($5 each additional) and include two admission tickets. RV parking available for $12 nightly. For reservations and information, contact Bill Sawders, K7ZM, 19821 Ponderosa St., Bend, OR 97702; 541/389-6258. Talk-in on 146.94(-).

Pennsylvania

The **Skyview Radio Society** will hold a hamfest on 03 August from 8 a.m. at the Washington Township Fire Hall in North Washington, PA just off Route 380, on Route 66. Admission is free. Indoor vending $5 per table. No extra charge for electricity. Outdoor vending is $2 per space (acres of room). Plenty of parking available. Hourly drawings. Refreshments also available. Contact Robert Reihms, N3NOS, 412/727-2194 after 6 p.m. EST. Talk-in on 146.64(-) and 444.900(+).

Virginia

The **Roanoke Valley ARC** will hold a hamfest and computer show on 16 August from 9 a.m. to 5 p.m. (dealer setup 6 a.m.) at the Exhibit Hall, Roanoke Civic Center, Roanke. Features include equipment dealers, free forums, two walk-in VEC license exam sessions (all classes), and a flea market, indoors and out. Admission $5/advance or at the door, outdoor tailgating $5, inside flea market $10/table, dealer tables $20 each (plus $20 electricity). Make checks payable, and mail SASE to: RVARC, P.O. Box 2002, Roanoke, VA 24009. Dealers and inside flea market, contact Claude, KE4UVO, 540/774-8971 or ke4uvo@ intrlink.com. All others contact Terry, AE4EW, 540/890-6782 or ae4ew@ix. netcom.com. Talk-in on 146.985(-).

Wisconsin

The **Marshfield Area ARS** will hold a Hamnic picnic on 03 August. Swapfest and potluck around 11 a.m. in Wildwood Park. Everyone welcome. Contact Guy Boucher, KF9XX, 107 W. Third St., Marshfield, WI 54449; 715/384-3323 or packet: KF9XX@W9IHW. WI.USA.NA. E-mail guyboucher@ tznet.com Talk-in on 147.18(+). WR

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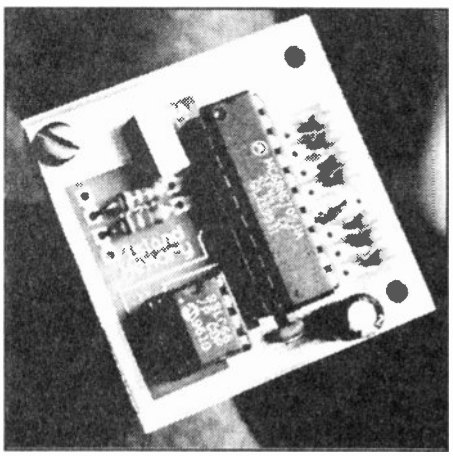
Information in "New Products" is supplied by the manufacturers to acquaint *Worldradio* readers with new products on the market.



The Island Memory

Jackson Harbor Press has announced the release of their third kit: The Island Memory.

The Island Memory is an add-on memory keying circuit board for many of the popular Morse code keyers used today. It connects to your compatible keyer via five wires: power, ground, keyer output, dit and dah paddles. The Island Memory board has a Motorola microcontroller that controls a separate Electrically Erasable Programmable Read Only Memory (EEPROM). It keys your keyer the way you do; it actuates the dit or dah input of the keyer and then "listens" for the keyer output. The Island Memory records messages as you send them with your keyer. Note that the Island Memory does *nothing* standalone. You need to connect it to a compatible keyer for it to record and send Morse code messages.

Why the Island Memory? You probably already have a keyer. It's in a box, you are used to it and like the way it keys. The problem: no memory functions, OR maybe it has memory but you want more memory capacity. The Island Memory allows you to add memory keying to your keyer for less than $20.

The Island Memory has four user-programmable 60-character message memories. The messages are retained even when the power is turned off. Message playback can be paused manually or by embedding a pause character when recording. Power consumption is low (5 µa standby, 3 mA active at 5V), so the Island Memory can be powered from the keyer power supply or battery. The unit is small enough to fit within an existing keyer enclosure — the circuit board is 1.5 inches square.

The kit includes instructions, circuit board and all other necessary board-mounted components. The builder will need to add 4 momentary switches to actuate the messaging. The builder can also add optional status LEDs and a memory recording mode select jumper.

The unit is compatible with any keyer that has the following features: Supply voltage of the keyer chips is in the 3-6 volt range, dits and dahs are generated by a switch closure to ground, and the keyer chip outputs a positive voltage (digital 1) when sending a dit or dah.

The Island Memory is available from dealers or directly from: Jackson Harbor Press, N21W1418 Foss Rd., Washington Island, WI 54246. Price is $17.95 plus $2 S/H (U.S.A.), Wisconsin residents add 5.5% sales tax. For more information e-mail jacksonharbor@worldnet.att.net

LOGic 5 for Windows® 95/NT 4.0

Personal Database Applications announces the release of LOGic 5, the 32-bit, Win 95, CD-ROM version of this popular ham shack software system.

LOGic 5 is an excellent software tool for all aspects of Amateur Radio, including logging, awards tracking, contesting, QSLing, packet spotting, keying, radio interfacing, and antenna rotor control.

Some exciting new features of LOGic 5 are: The all new user interface is more powerful yet easier to use. Users may modify screen layout by simply dragging fields into position with the mouse; unwanted fields are dragged to the recycle bin; networkable — great for Field Day and multi-ham contesting; Internet web cluster DX spotting; support for multiple TNCs; ADIF support; field names and menu options may be replaced with foreign language equivalents, and much more.

LOGic 5's flexibility makes it the product of choice for hams who wish to customize their software. It supports user-defined fields, user-defined contest rules, and user-configurable awards tables. The sub-award feature allows easy tracking of subcategories such as QRP, YL, 1010, etc., for any award. Its powerful report writer features drag and drop layout, true type fonts, and color and graphics support. QSL cards may be printed directly from LOGic 5.

LOGic 5 requires Windows 95 or NT 4.0, Pentium, 12 megs of RAM, and a CD-ROM drive. It is available exclusively from Personal Database Applications, 1323 Center Drive, Auburn, GA 30011; 770/307-1511, fax 770/307-0760.

E-mail: pda@hosenose.com. The software can be downloaded from our web site: http//www.hosenose.com

TR270 FM Transceiver

In response to overwhelming consumer demand, the R.L. Drake Company re-enters the Amateur Radio market with the TR270 EM Transceiver — the only desktop FM transceiver on the market dedicated specifically to two-meter operation. The TR270 is actually two radios. The first permits full two-meter transceiver capability (142-150 MHz), while the second permits independent dual band reception (136-174 MHz and 420-470 MHz). This broad range lets users listen in on public service, marine, weather, and amateur bands.

The Drake TR270 is a complete turnkey solution to address the many applications of radio operation. The TR270 utilizes internal card slots for integrating 1200/9600 bps packet radio, satellite, weather fax and data reception. The optional TNC270 Terminal Node Controller and DEMOD270 Demodulator plug-in cards fit neatly inside the TR270. These cards are designed and pre-configured for maximum performance and eliminate the need to jerry rig multiple components together. Unnecessary cabling that accompanies multiple pieces of equipment is also eliminated, making a cleaner and more spacious ham shack.

In summary, the TR270 boasts total integration of FM voice, packet, satellite, weather fax and data reception. "With five different modes of op-

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eration, the TR270 provides the Amateur Radio user with a breadth of operations never found before in one transceiver," comments Rich Renken, National Sales Manager - Consumer Products, and Amateur Radio operator himself for 39 years.

The Drake TR270 caters to the preferences of the operator. With over 60 user-defined parameters, the TR270 can be set up to personally meet the needs of the individual user. Parameters such as selecting filters or antennas, setting memory scan modes, or customizing channel lists for receiver and transmitter, can be selected easily with setup menus and front panel input.

The TR270 offers the convenience of one complete, multipurpose FM transceiver. The intelligent TR270 automatically configures operating parameters to fit the selected operating mode. The optional TNC270 and DEMOD270 are also configured with the TR270 to ensure seamless operation in packet, satellite, and data modes. For added convenience all operating parameters and repeater offsets are factory installed for ease of use and immediate operation. The TR270 boasts 400 total channel memories and remembers favorite frequencies in voice, satellite, or data modes.

In addition to complete integration, customization and convenience, the TR270 employs a built-in 140 watt, 115/230V AC switching power supply for use around the world. Other features include a high quality dynamic microphone, an external DC input for mobile or emergency power operation, DTMF and CTCSS tone encoding and decoding for both two Meter and wideband (decode) receivers, external audio-in jack for copying shortwave fax/data transmissions, external speaker jack, headphone jack and transmit time-out timer.

The R.L. Drake Company has been a leader in the communications field since 1943, and manufactures a diverse line of products including consumer satellite television equipment, commercial satellite communications equipment and radio communications equipment. For additional information contact the R. L. Drake Company, 230 Industrial Drive, Franklin, OH 45005. Telephone 513/746-4556 or fax 513/743-4510, or http://www.rldrake.com

WeatherLink® 4 for Windows™

Davis Instruments, manufacturer of quality weather instrumentation since 1988, introduces WeatherLink® 4 for Windows™, which gives Amateur Radio operators new Windows tools for Davis Home Weather stations.

WeatherLink 4 can automatically update strip charts to show users weather trends for as many variables as desired on a single screen. It can generate reports similar to National Oceanic and Atmospheric Administration "weather watcher" reports, and calculate and display weather information not available on the station console. Other improvements include expanded weather data and a new plotting interface with improved support for packet radio.

The package has already received praise for its features from field testers.

"We really like the program," said Terri Lawson of Ukiah, CA. "I can't imagine not upgrading to the Windows version. It will be a bonus for those buying it with a new station."

Davis Home Weather stations are compatible with APRS shareware that is available on the Davis web site (www.davisnet.com) and BBS (510/293-3546). APRS (Automatic Packet Reporting System) is mapping software that allows a user to send as well as receive weather data over a Packet Radio system (VHF radio, Tenninal Node Controller and a PC) and have it displayed graphically on a regional map. Through the use of Digipeaters and HF gates, users can send and receive weather data over a wide area, making this ideal for Skywarn or other similar applications.

For more information, contact Davis Instruments, 3465 Diablo Ave., Hayward, CA 94545; 510/732-9229, fax 510/732-9188, Internet http://www. davisnet .com

Rotor cable assemblies

CABLE X-PERTS, Inc. is pleased to announce the addition of two new rotor cable assemblies. These eight conductor rotor cables come complete with cinch "Jones," plugs (male) and sockets (female) installed. Each termination is soldered and tested for complete electrical and physical integrity. Part Number: 5971CPS125 is 125ft long, 8 conductors (2/18, 6/22). Price: $34.95 plus UPS shipping charges. Part Number: 1618CPS200

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Ham Radio Outlet
14803 Build America Dr.
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is 200 ft long, 8 conductors (2/16, 6/18). Price: $84.95 plus UPS shipping charges.

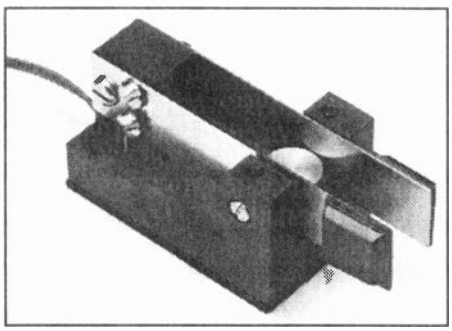
Either assembly is specifically designed to fit the Hy-Gain HAM IV rotor. Simply determine the length required from the rotor to the control box. Then purchase the appropriate cable assembly. For other rotors using the standard 8-position screw-type set-up, we also have 12" pigtail assemblies.

Part number 5971CP12 is 12" long with spade lugs on one end for easy attachment to the rotor, and a male plug on the other end, priced at $12.95.

Part number 5971CS12 is 12" long with spade lugs on one end for easy attachment to the control box, and a female socket on other end. Price $12.95.

In addition, other lengths can be supplied. Call, fax, or e-mail for price and delivery.

CABLE X-PERTS, INC., 416 Diens Drive, Wheeling, IL 60090 USA. Tech: 847/520-3003; fax: 847/520-3444.



"Paddlette" miniature iambic paddle key

PADDLETTE Company introduces a high quality iambic paddle key and companion knee mount which should prove ideal for QRP and field use, as well as a solid performer at base stations.

The footprint is only 1" x 1¾" and weighs 1.4 ounce. The design is very simple and rugged with only two moving parts — no springs, locknuts, needle bearings or other fussy components. The contact gaps are independently adjustable by 56 pitch screws — 20° rotation changes gap by only .0001". A unique design feature places drag on the gap adjust screws, thus ensuring their staying in place once set. A #4-40 Allen head set screw bears against a small neoprene "slug" which bears on a tiny steel ball that rides on the #2-56 stainless steel gap — adjust, screw threads. This increases drag, eliminating slop and backlash. These adjustments of gap are possible without the need to loosen and tighten locknuts or other locking devices.

The base of the key is precision machined from a solid block of type 1 PVC. Upon pressing dot or dash paddles, spring temper, cantilevered reeds move inward to contact a machined brass center contact. Because of the cantilever mounting there is absolutely no lost motion. Keying is light and very positive. Three feet of lightweight, 3-conductor stranded cable connect the key to rig or keyer.

The key is held firmly in place on bench or knee mount by adhesive-backed magnetic plates — one serves as the bottom cover plate of the key; the other is stuck to the bench top. An extra plate is supplied for a second location. The knee mount comes with its own magnetic plate. The key sells for $39.50, shipping and handling included.

A companion knee mount is available for $9.50, (S/H included). It consists of a 3-sided, 22-gauge aluminum piece 4½" long, formed to fit the upper leg above the knee. The key-mounting surface is 1½" wide and the two "wings," bent down 40° from horizontal are likewise 1½" x 2½". Corners are rounded and the finish is a flat black powder coating which is extremely tough and abrasion resistant — far superior to anodizing or any conventional paint.

A soft, 1" wide x 24" long elasticized strap is permanently attached to one wing, while a plastic ladderlock buckle is loosely attached to the other wing by a loop of the same strap material. Thus the mount is all one piece with no Velcro™ to mess with or loose parts to go adrift.

The mount can be installed in ten seconds, removed in five, and the key installed in two. The combination of key and mount sells for $44.95, S/H included. Send check or money order to Paddlette Company, P.O. Box 6036, Edmonds, WA 98026. For more information, call 425/743-1429.

Celtronics???

Last month's New Products column included a listing for Celtronic Battery Saver systems, with a contact name of Tim Day, Wenco Electronics, of Roseburg, Washington. The telephone numbers given for the company are not in service, and the Business Licensing authority in the city of Roseburg does not list a business license for Wenco Electronics. We regret any inconvenience to our readers.

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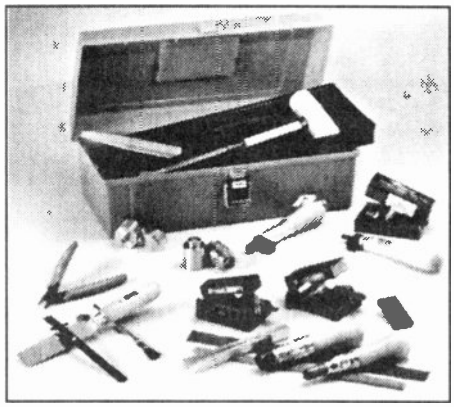

Connector Attachment Tools

Designed exclusively for Andrew Corporation cables and connectors, the HELIAX® Tool Kit makes connector attachment faster and easier. Packaged in a sturdy tool box, the kit contains the same set of specialized tools used by Andrew technicians to produce reliable assemblies.

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To order, call Andrew Corporation at 800/255-1479. For further information, contact the Andrew Customer Service Support Center at 800/255-1479, ext. 271 and request Bulletin #1971A or write 10500 West 153rd St., Orland Park, IL 60462. WR

World Radio History

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 October, please have the information to us by mid-July.

Worldradio, 2120 28th St., Sacramento, CA 95818.

Please mark the envelope "VE Exams."

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

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

w/i pref. = w/i preferred to p/r
w/i = walk-in only

State	City	Contact	Notes
Alabama			
9/02/97	Mobile	David, WA4VAC 205/649-5229	
Arizona			
9/13/97	Tucson	Joe, K7OPX 520/886-7217	w/i
Arkansas			
9/13/97	Siloam Sprgs	Mike, KJ5OP 501/524-8090	p/r
California			
9/24/97	Anaheim	Robert, AC6JM 310/429-8275	p/r pref.
9/09/97	Arcadia	Gary 818/335-1127 or Denny, W6VRK 818/358-1480	p/r pref.
9/25/97	Colton	Harold, AB6RN 909/825-7136 days or 909/685-6073 eves	p/r pref.
9/27/97	Culver City	Scott, K6PYP 310/459-0337 or Dave, N3BKV 818/559-2572	w/i
9/13/97	Culver City	Clive, AA6TZ 310/827-2538	p/r pref.
9/6&20/97	Cupertino	Emmett, AE6Z 408/243-8349	w/i only
9/27/97	Escondido	Harry, WA6YOO 760/743-4212	p/r
9/18/97	Ftn. Valley	Allan, AB6UB 714/531-6707	p/r pref.
9/02/97	Fremont	Dennis, K6DF 510/791-0954	w/i only
9/27/97	Garden Grove	John, KV6E 714/534-8633	p/r pref.
9/06/97	Hesperia	Jim 619/244-1396	w/i only
9/12/97	Irvine	Jack, WD6AEI 714/856-0802	
9/09/97	Jackson	Ray, AA6EW 209/296-3412	p/r pref.
9/06/97	Lake Isabella	Hotline 619/379-2947	p/r pref.
9/19/97	Lake Isabella	Rex, 619/379-3011	p/r pref.
9/15/97	Mission Viejo	Louis, 714/951-0336	p/r
9/07/97	Oakland	Vern, AA6YE 510/233-4504	p/r pref.
9/20/97	Orange	Richard, AA6NA 310/598-0086	p/r pref.
9/09/97	Palm Desert	Don, W6EEN 760/345-8780	p/r pref.
9/27/97	Pomona	Don, WA6HNC 909/949-0059	p/r pref.
9/20/97	Redwood City	Joe, KB6OWG 408/255-9000	w/i only
9/14/97	Sacramento	Dick, N6DK 916/383-2113	p/r
9/13/97	San Pedro	Elvin, N6DYZ 310/325-2965	p/r pref.
9/13/97	San Rafael	Recording 415/883-9789	p/r pref.
9/10/97	Santa Ana	Red Cross 714/835-5381 x140	w/i
9/20/97	Sebastopol	Claude, 707/527-8593	p/r pref.
9/20/97	Signal Hill	Donald, NN6Q 310/420-9480	p/r pref.
9/20/97	Stockton	Mark, W6DKI 209/465-7496	w/i
9/13,28/97	Sunnyvale	John, KG6XF or Gordon, W6NW 408/255-9000	w/i only
9/20/97	Westminster	Terry, 714/638-4057	
Colorado			
	All Colorado	Exam recording 303/360-7293	
9/13/97	Denver	Glenn, WØIJR 303/366-0155	w/i pref.
9/06/97	Littleton	Dave, NØHEQ 303/795-5718	w/i pref.
Connecticut			
9/18/97	Trumbull	Kevin, N1KGM 203/268-5015 or Bob, KA1ZMF 203/933-9587	
Florida			
9/11/97	Ft. Myers	Norm, AF4AZ 941/694-2505	w/i
9/20/97	Melbourne	Bill, WB9IVR 407/724-6183	p/r pref.
9/20/97	Orange Park	John, W5HUQ 904/264-5587	p/r pref.
9/25/97	Pensacola	Steve, KO4TT 904/968-1092	
9/13/97	Valparaiso	Bill, W4WIJ 904/243-9720 or Hud, KF4BÙ 904/862-2566	p/r pref.
9/18/97	Vero Beach	Roger, K4RS 561/567-3979	w/i
Idaho			
9/13/97	Boise	Lem, W7JMH 208/343-9153	w/i pref.
9/24/97	Grangeville	Larry, AB7GY 208/983-2163	w/i pref.
Illinois			
9/13/97	Oak Forest	David, NF9N 708/448-0580	p/r pref.

State	City	Contact	Notes
Indiana			
9/13/97	Chesterton	Bill, N9SLQ 219/762-2887	w/i pref.
9/17/97	Indianapolis	Tom, N9FLU 317/326-3168	p/r
Maryland			
9/20/97	Manchester	Ed, 410/239-8488	p/r pref.
Massachusetts			
9/20/97	Melrose	Scott, WB1F 617/665-7654	p/r pref.
Michigan			
9/13/97	Marquette	Richard, N8GBA 906/249-3837	p/r pref.
Nevada			
9/20/97	Minden	George, WW7E 702/265-4278	w/i pref.
9/13/97	Reno	Don, W7FD 702/851-1176	p/r
New Jersey			
9/18/97	Bellmawr	Diane, N2LCQ 609/227-6281	w/i
9/13/97	Cranford	24-hour hotline 201/377-4790	w/i pref.
9/27/97	Dennisville	John, AA2TZ 609/884-8117	w/i
9/10/97	Ft. Monmouth	Jerry, WB2GYS 908/532-5354	p/r pref.
9/13/97	Pennington	Don, AA2F 609/737-1723	p/r pref.
9/01/97	Sayreville	Larry Makoski, N2ELW 908/390-5857	w/i pref.
New York			
9/09/97	Bethpage	Bob, W2ILP 516/499-2214	w/i pref.
9/07/97	Yonkers	Emily, AC2V 914/237-5589	p/r pref.
North Carolina			
9/25/97	Washington	Kirk, N5NC 919/946-7498	w/i pref.
Ohio			
9/06/97	Cincinnati	Herb, WA8PBW 513/891-7556	p/r pref.
9/13/97	Van Wert	Robert, KA8IAF 419/795-5763	p/r pref.
Oregon			
9/12/97	Grants Pass	Clyde, AA7WC 541/474-0205 or Gary, KB7CFI 541/474-7974	p/r pref.
9/27/97	Klamath Falls	Brad, KG7OK 541/883-1737	p/r pref.
9/10/97	Roseburg	Dick, AA7GC 541/672-7564	p/r pref.
Pennsylvania			
9/06/97	Erie	Norma, W3CG 814/665-9124	w/i only
9/04/97	Philadelphia	Dusty, ND3Q 215/879-0505, 215/448-1139 (tape)	p/r pref.
Rhode Island			
9/11/97	Providence	Judy, KC1RI 401/231-9156 Al, NN1U 401/454-6848	w/i pref.
9/27/97	Slatersville	Bob, W1YRC 401/333-2129 or 401/333-2373	
Texas			
9/11,25/97	Ft. Worth	Ted, AB5QU 817/293-6745	p/r
9/09/97	Houston	Harold, ND5F 713/464-9044	p/r pref.
Utah			
9/20/97	St. George	John, K7XE 801/674-9613	p/r pref.
Vermont			
9/26/97	Essex Jct.	Mitch, W1SJ 802/879-6589	p/r pref.
Wisconsin			
9/20/97	Appleton	Larry, KD9IA 414/759-1167	
9/06/97	Racine	Bob, WØWLN 414/886-8551	p/r pref.

Get yourself prepared. 1998 is just around the corner. Send in your VE exam schedules now!

World Radio History

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AUTO-CALL MAGAZINE, official journal of the Foundation For Amateur Radio, a federation of over 80 clubs in the greater Baltimore/Washington DC area. Great coverage of FCC, ARRL, VEC, Public Service and club activities in the area. A must for those even passing through the area. For a sample copy write FOUNDATION FOR AMATEUR RADIO , P.O. Box 7612, Falls Church, VA 22046-7612. F198

WANTED REPLY COUPONS of all types, IRCs & others. Buy, sell, trade. JIM NOLL, P.O. Box 3410, Escondido, CA 92033. 497-498

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SELLING VARIABLE CAPACITORS, 25 to 250 pF 4kV removed from new equipment, ideal for tuners. $50 each including postage. W6QEU, 1236-40th Ave., Sacramento, CA 95822. Msg. phone 916/421-1637 (Kopps). F198

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WANTED FOR MUSEUM: Apple-1 and other pre-1980 micro-computers, also early micro-computer journals, newsletters and advertising literature. KK4WW, P.O. Box 341, Floyd, VA 24091, 703/231-6478 or 703/763-2321. 297-298

COMMERCIAL LEGAL RADIOS. For less than $400 you can have an American made mobile or handheld VHF radio, legal on search and rescue, volunteer police, fire, medical, etc. Also available for new CAP splinter channels. Free spec sheet. 800/755-7169, ask for Gar or Sue. AXM ENTERPRISES, 11791 Loara St., Ste. B, Garden Grove, CA 92640. 5-897

CHAVERIM-WESTERN USA AND MEXICO CHAPTER. Jewish amateurs and friends interested in our chapter or the Chaverim, contact KA6BJO, 24055 Paseo Del Lago West T1, #1006, Laguna Hills, CA 92653. 797-798

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AMATEUR RADIO REPAIR. HF, VHF, UHF all brands, repeaters and amplifiers serviced, DUPLEXERS tuned. Prompt service, reasonable rates, FCC licensed. CENTURION COMMUNICATIONS, 892 N. Delsea Dr., Vineland, NJ 08360; 609/794-8000. 897-198

World Radio History

HEATH, DRAKE, MORE. Equipment, manuals, parts. SWL. List $1 and SASE. JOSEPH BEDLOVIES, P.O. Box 139, Stratford, CT 06497. 8-997

WANTED: HAM EQUIPMENT AND RELATED ITEMS. Donate your excess gear — new, old, in any condition — to the Radio Club of Junior High School 22, the Nation's only full-time, non-profit organization working to get ham radio into schools around the country as a teaching tool, using our EDUCOM (Education Thru Communication) program. Send your radio to school. Your donated material will be picked up ANYWHERE or shipping arranged and this means a tax deduction to the full extent of the law for you as we are an IRS 501(c)(3) charity in our 17th year of service. It is always easier to donate and usually more financially rewarding *but most important,* your gift will mean a whole new world of educational opportunity for children nationwide. Radios you can write off, kids you can't; make 1997 the year to help a child and yourself. Write, phone or fax the WB2JKJ "22 Crew" today: The RC of JHS 22, P.O. Box 1052, New York, NY 10002. Call 24 hours 516/674-4072 or fax 516/674-9600; e-mail wb2jkj@juno.com; Internet www. wb2jkj.com Join us on the WB2JKJ classroom net, 7.238 MHz 1100-1230 UTC daily and 21.395 MHz from 1400-2000 UTC, and this month at the Huntsville Hamfest. 897

DP-8 ANTENNA CAN HANDLE 5kW and consists of 8 closely spaced full-size dipoles for each band from 80-10 Meters, 125', $139. DP-9S, 130', $210. Add $8 shipping. Morse code computer interface $49.95, with CW processor $69.95. Free Ham and Shareware Catalog. DYNAMIC ELECTRONICS, Box 896, Hartselle, AL 35640; 205/773-2758, fax 205/773-7295. dei@whnt19.com, http://www.hsv.tis.net/~dei. 8-997

DX HEADING MAPS AND LISTS. Honolulu to San Juan. Color $6.95, B/W $3.95 Bearing lists $6.95. W2HOJ, 800/941-2252. 8-1197

WEST VIRGINIA'S LARGEST hamfest/computer show, Sunday, September 14, 1997, Wheeling Park, Wheeling WV. Dealers, refreshments, fun contests, women and children free, 8 a.m. to 3 p.m. Admission $3. Info, TSRAC, 2011 State Hwy. 250, Adena, OH 43901; phone/fax 614/546-3930. 897

SB-220 MOD BOOKLET: Improved parasitic chokes, increased power supply and 10 Meter efficiency, 160 and 6 Meter operation, QSK and more. EIMAC 3-500Z spec sheets. $10 ppd. J.A. LUPINSKI, 651 Edel Ave., Maywood, NJ 07607. 8-997

WANTED: HL-1K/A TOKYO HY-POWER amp with or without tubes. LOGAN, 85 S. Union Blvd., #G-202, Lakewood, CO 80228. 897

STEALTH ANTENNA TUNER. No antenna required. DOVETRON, 2681 N. Grand, Nogales, AZ 85621; 520/281-1681. 8-997

WANTED: COLLINS RADIOS, any condition for my collection. FRED, W6YM, 17890 Sharon Ct., Pine Grove, CA 95665; fhonnold@juno.com 897-598

FOR SALE: Technical Material Corp GPR92 Rec. HANK, W6SKC, 2681 N. Grand, Nogales, AZ 85621; 520/281-1681. 8-997

2-METER GROUND PLANE. Emergency use —indoor use — ideal for condos where rubber duck doesn't reach repeater. Going on a trip? Easy disassemble for suitcase. 52-ohm. Base station attic installation ideal. Price $23.95, free shipping and handling. W2DGJ PRODUCTS, 4900 S.W. 94th Ave., Cooper City, FL 33328. 8-997

100 QSL CARDS $7.50 postpaid. Stamp for sample. ARTIST, P.O. Box 148652, Nashville, TN 37214. 897

FOR SALE: KENWOOD TS-520, $300. DRAKE TR4C/AC4, $300. K1BW, 413/538-7861. 897

SELL: 20M QRP W RIG, 5W out, Superhet RX, lots of audio. JOSH, 303/205-0677. 897

BEAM HEADINGS LOOKUP for your QTH and IBM compatible computer. Includes database and five bonus programs. $10 plus S&H ($1.65 U.S.A., $4 foreign). SASE for information. ADDIS, K4UAR, 2291 Midvale Cir., Tucker, GA 30084. 8-997

Mount Shasta celebrates 50 years

The Mount Shasta Amateur Radio Club will hold a celebration on 03 August in the city's park, and are trying to locate as many former members as possible to attend a swap meet and spaghetti feed. A tour of the club's ham shack on Washington Drive will be held.

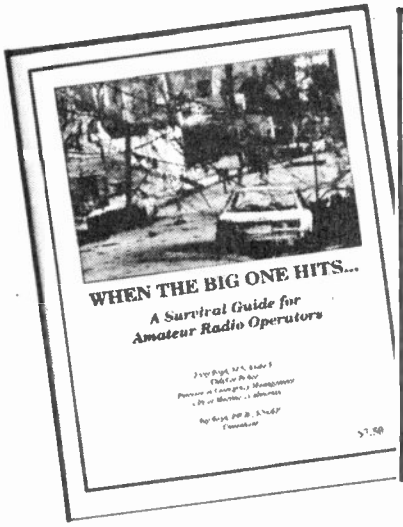
The club is one of few to have its own building for meetings and to house their ham station. It was acquired after a grateful city gave them a cottage, and land to put it on. In 1950, the club held a ham swap, with more than 200 attending. On that Saturday, a forest fire broke out, and as most of the hams had mobile 10-meter gear, they put a ham with each piece of fire equipment. During the night, the wind shifted and drove the fire straight at Mount Shasta City. Warned by the hams, the fire fighters were able to halt the firestorm and save the city. WR

Ted Graves, W6FKI, (l) and Irv Astman, W6OMR, (r) receive 50-year award from ARRL's Jettie Hill, W6RFF.

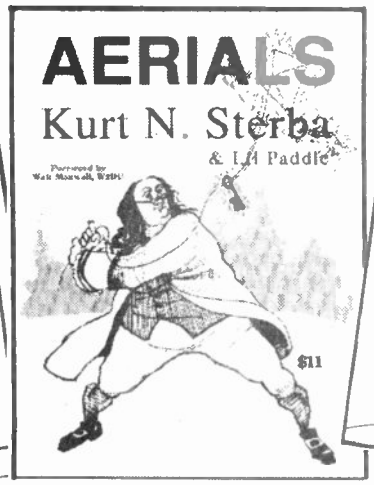
Advertisers' Index

World Radio History

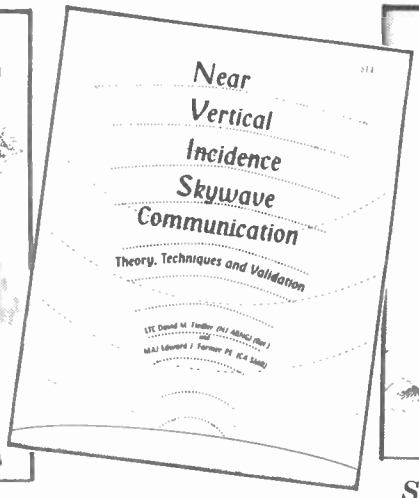
WORLDRADIO BOOKS, ETC.



When the Big One Hits...
A Survival Guide for Amateur Radio Operators
$7.50 + $2.00 S&H.
CA residents add $.58 tax.



Aerials
$11+ $2.00 S&H.
CA residents add $.85 tax.



NVIS Communications
$14+ $2.00 S&H.
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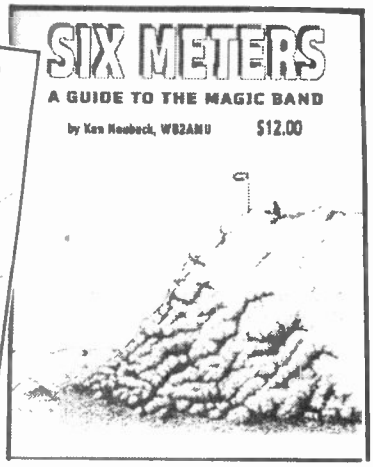

Six Meters — A Guide to the Magic Band
$12.00 + $2.00 S&H.
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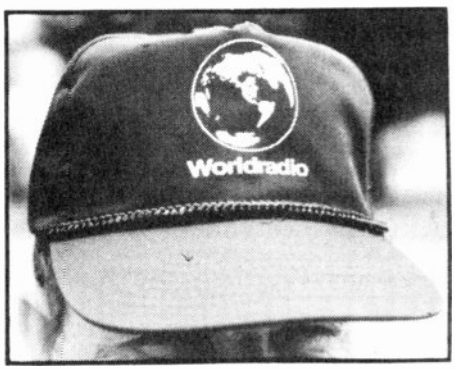

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$7.00 + $2.00 S&H. CA residents add $.54 tax.

Guaranteed to make your beverage taste better!
Cobalt blue 11 oz. ceramic mug with light blue imprint.
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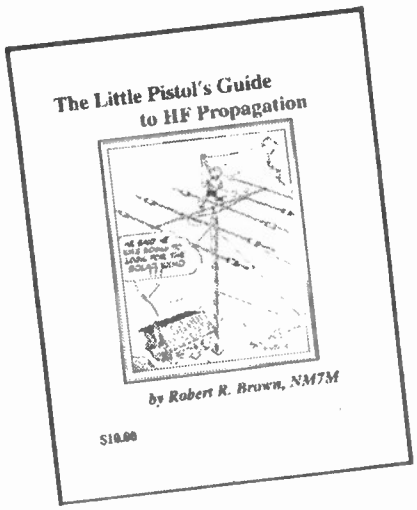
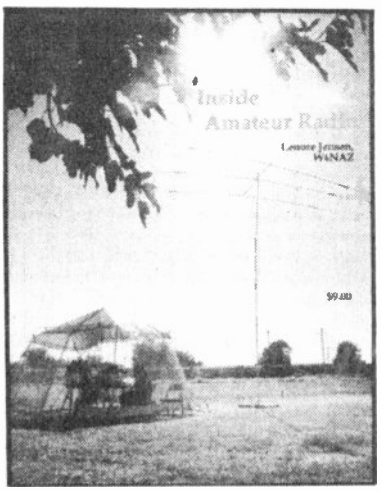


The Little Pistol's Guide to HF Propagation
$10.00 + $2.00 S&H.
CA residents add $.78 tax.



Inside Amateur Radio
$9.00 + $2.00 S&H.
CA residents add $.70 tax.

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Disaster averted in MIR crash

Terry Douds, WB8CKI

The Russian space station MIR suffered a near-catastrophic collision with a supply ship during practice manual docking maneuvers on Wednesday, 25 June. The craft was attempting to re-dock with a Progress supply ship when the accident occurred.

The station is made up of a main core and four extended modules, known as Krystall, Kvant-2, Spektr, and Priroda. When the crash occurred, the crew was attempting docking with the Progress M34 supply ship. The ship was full of trash from MIR, and was to be sent into a destructive reentry mode in a few days. The collision caused a break in the outer shell of the Spektr module, damaging a solar panel and causing depressurization of the main core. Due to quick action by Cosmonauts Vasily Tsibliyev and Alexander Lazutkin, and NASA Astronaut Mike Foale, KB5UAC, the main core was sealed off from Spektr, and the interior pressurization was reestablished.

The Spektr module was the newest addition to the space station, having been added in May 1995, during astronaut Norm Thagard's stay aboard the craft. Unfortunately, it provided most of the power to the entire space station. According to VideoCosmos Co of Moscow and *Novosti Kosmonavtiki* magazine, the cargo spacecraft sheared off half of a Spektr solar panel, so the loss of power became quite serious. Enough other panels remained on other modules to keep the battery system charged, but the craft was placed in a "darkened" state, according to Jerry Linenger, KC5HBR. Linenger was the last U.S. astronaut to work on MIR, and he had many problems to deal with during his stay as well, including a fire onboard the ship.

Repair is definitely needed, and at the time of this report, plans are being made for both EVA (Extra Vehicular Activity) and IVA (Intra Vehicular Activity). A new Progress supply ship will be sent up with new solar panels for this effort. The Amateur Radio gear aboard MIR is in the Priroda module, and consequently was not damaged in the accident. However, due to the power constraints the gear was turned off immediately following the incident, along with all non vital systems. Only the life support and main communications systems were left on. However, over the weekend of 28/29 June, Mike was able to fire up the 2 meter gear and had some QSOs with some Australian and New Zealand hams to let them know things were going well. The crew has found Amateur Radio to be very good for morale, and also a great backup system for the actual main communications package.

Most of the experiments aboard the Spektr module are believed lost, although Mike reported that two of his experiments were in the Priroda module and were undamaged. All of KB5UAC's personal possessions were in the Spektr module however, and presumed lost. **WR**

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