Worldradio

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Volunteer exam program

PR Docket No. 83-27

The FCC has proposed to authorize volunteers to prepare and administer examinations for Amateur Radio operator licenses above the Novice Class.

The FCC's proposal was designed to offset the limitations in opportunity for amateurs to take the examinations that have resulted from funding and personnel cutbacks. The exams at present are administered by FCC personnel, usually at Field Operations Bureau offices. In some areas, they now are given only once a year, and the number of remote locations has been reduced.

Legislation enacted in September 1982 authorized the FCC to use licensed amateurs on a voluntary and unpaid basis to prepare and administer amateur exams. The ARRL proposed a plan for use of amateur examiners in a petition to the FCC in October 1982.

Under the Commission's proposal, individuals and organizations would propose questions for all examinations based on the FCC's Study Guide for the Amateur Radio Operator License Examinations. The FCC would issue lists of approved questions which would be drawn on for exams.

Written examinations for the Technician, General and Advanced licenses would be given by three-person teams

(*please turn to page 38*)

Attention CW buffs

The 1983 Dayton Hamvention will offer an opportunity to challenge the world's record for copying Morse code. It will be held 29-30 April and 1 May.

According to *The Guinness Book of World Records*, Ted McElroy set the record of 75.2 wpm in 1939 at Asheville, North Carolina. It still stands nearly 45 years later.

If anyone is seriously interested in having a crack at this speed, please write Frank J. Schwab, W8OK, CW Proficiency Chairman, Dayton Hamvention, Box 44, Dayton, OH 45401 for details.

The Dayton Hamvention will again provide CW Proficiency Certificates starting at 25 wpm and increasing in 5 wpm increments as long as there are participants. No prior registration required.

The ability to copy through QRM will also be tested. Speed will be approximately 18 wpm. This is a fun experience. Plan to participate. □

St. Vincent

The FCC has announced that a third-party traffic agreement is now in effect between the United States and St. Vincent, prefix J8.

—*ARRL* □

John Johnston, W3BE represented the FCC at SAROC, 14-16 January, in Las Vegas, Nevada. In his speech, he summarized FCC's actions in 1982.

FCC Forum

Norm Brooks, K6FO

As has been the custom for the last few years, the Federal Communications Commission (FCC) was represented at SAROC, Las Vegas, Nevada on 15 January 1983 by John Johnston, W3BE. Johnston is the Chief, Personal Radio Bureau of the FCC.

Johnston summarized actions of the FCC in 1982. Of course, the biggest such news in 1982 was the signing of the "Communications Amendments Act of 1982" by President Reagan on 13 September 1982. (See **Worldradio**, November 1982, page 10.) This Public Law 97-259, among other things, gives the FCC authorization to use radio amateurs to give Amateur Radio examinations. This includes both the code and written tests. Johnston said, "I think you (radio amateurs) can do a much better job" (than we have been doing). With budget cutbacks, for example, prospective amateurs in Washington, D.C. must go to Baltimore to take the tests, because testing activity has been shut down in Washington. Even Baltimore had a cutback from two days a week to one day in two weeks.

None of the 1982 items were news to those of you **Worldradio** readers who are regular readers of **Bill Grenfell, W4GF's** column 'FCC Highlights.'

The FCC has received a petition from the ARRL proposing that the term of an Amateur Radio license be 10 years. The FCC has cleaned up its outstanding paperwork on Amateur Radio. In the good old days, there have been 100 to 200 Notices for Proposed Rule Making (NPRM) outstanding. By combining many proposed actions, they now have the number cut to three!

No-code license

"As you know," Johnston said, "the FCC has been working on a no-code license for over a decade." There are two possibilities: 1) eliminate the code requirement for the present Technician Class license, or 2) a digital-type license similar to that already in effect in Canada.

In the question and answer session, amateurs expressed displeasure that there should be a no-code license. They questioned how the present Technician privileges in the HF Novice bands would be administered.

Rule enforcement

Johnston said the FCC is anxious to get the volunteer examining program started as soon as possible. He was asked if volunteers would also be used for the enforcement of amateur rules. He pointed out that he was involved only with rule-making and could not speak officially for enforcement. But he believed the enforcement people had in mind the upgrading of both the TVI committees and the Official Observer program. □

No-code a possibility

PR Docket No. 83-28

The FCC has proposed to establish an Amateur Radio operator license class with no requirement of proficiency in international Morse code.

Posing two alternatives for the proposed codeless amateur class, the FCC said it believed there are intelligent, disciplined persons who can make a valuable contribution to the Amateur Radio Service without proficiency in Morse telegraphy. They might include, it said, younger persons with a primary interest in computer technology and physically handicapped persons as well as others.

The proposed class would be an "entry" class, the FCC said, for which additional proficiency in radio theory, operation and practice would be required rather than proficiency in code. In that way, it said, individuals could prove they have the ability and discipline to make a serious contribution.

The FCC proposed as alternatives either to change the requirements for the existing Technician Class license to eliminate the Novice code examination (requiring proficiency of 5 wpm) or to create a new Experimenter Class license without a code requirement and perhaps requiring demonstration of greater proficiency by written examination than the Technician Class does. The latter would be similar to the Canadian Digital Amateur Class Certificate.

The alternative proposals would have certain features in common. They would *not* confer operating privileges on frequencies below 30 MHz, since those still would require code. *The FCC asked for comment on specific frequencies above 30 MHz to authorize for the codeless class.*

Requiring code serves an important purpose for operations below 30 MHz, the FCC said. Also, upon ratification of the Final Acts of the 1979 World Administrative Radio Conference, the United States will be committed to a requirement that amateurs operating below 30 MHz (formerly 144 MHz) demonstrate code proficiency.

There is no intention to deemphasize code as a communications mode in the amateur service, the FCC said. Code's attributes of wide recognition and efficiency, it said, substantiate the belief that "code can stand on its own feet" without being made a prerequisite for amateur licenses operating exclusively above 30 MHz.

The FCC *noted that code is seldom used in the VHF and higher bands.* Beyond the understanding of radio communication and the regulations under which it operates, the FCC said it could leave to the individual the decision whether code would benefit his or her endeavors in Amateur Radio.

The Commission said it was aware that a codeless license probably is the most

(*please turn to page 9*)

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March 1983 Vol. 12, No. 9

Worldradio (USPS 947000) is an international conversation. You are invited to take part. Our newspaper is written by its readers.

Our goal is to be a valuable resource of ideas and experiences beneficial to the Amateur Radio community. We publicize and support the efforts of those who bring the flame of vitality into this avocation.

Our readers are participants — an alliance of active radio amateurs who are concerned with reality, who use radio as a communications tool. We ask your cooperation in helping us develop the skill, quality and full potential of Amateur Radio.

We are positively-oriented. We print all the news of this great activity, and particularly desire an input of stories dealing with the dramatic, the personal and humanitarian uses of Amateur Radio.

Worldradio needs your help to reflect the invaluable service of Amateur Radio.

Through **Worldradio** you can make contact with other individuals who share your interests.

Worldradio is an independent newspaper. It is not affiliated with any other firm, group or organization. Its pages are open to all. Permission is hereby automatically granted to reprint from this publication. If there is something useful, we wish to share it.

Subscription rates: $9.00 per year, $17.00 for two years, $24.00 for three years and $90.00 for life; $2.00 extra per year for surface mail delivery outside the U.S. Overseas. Please remit international postal money order. IRCs and local currency will be accepted.

Second-class postage paid at Sacramento, CA.

Lloyd Colvin, W6KG/A4, erecting antenna in the Sultanate of Oman, January 1983. Lloyd and Iris will operate next from Qatar.

Colvins in Oman

Corniche-Muscat
Sultanate of Oman
Arabian Gulf
8 January 1983

Dear Friends,

We have just completed operation here in Oman as W6KG/A4. We made 5,000 QSOs, with amateurs in 127 countries. We were active on 10, 15, 20, 40 and 80 meters, half SSB and half CW. The new 30-meter band is *not* authorized here yet. We were lucky to receive our licenses because visitors, tourism and transit guests are, in general, not allowed.

We lived and operated here from the Sea View Hotel. We were very much concerned over the possibility of television interference (TVI) because there were many TV sets in the hotel.

We had no problem at all with TVI. This was primarily due to the fact that TV here operates on UHF instead of VHF, as in America and some other countries. This is a good thing to know, and we will remember it when we visit other foreign countries.

Oman is the first of the oil-rich Middle East countries that we have visited. The whole country is a booming frontier-land, with construction of new buildings, new roads, and general expansion everywhere. Much of the money for this comes from the new-found oil, but this fact is not mentioned or discussed much by the government or local newspaper, etc.

We go next to the country of Qatar (A71).

LLOYD COLVIN, W6KG
IRIS COLVIN, W6QL □

Teleconference Radio Net repeaters

The Baltimore, Maryland and Los Altos, California areas are now covered by the Teleconference Radio Net. The current list of participating repeaters is:

Phoenix	AZ	KA7DSY/R	147.36
Avon	CT	W1NI/R	224.78
Roswell	GA	N4CLA/R	145.47
Wichita	KS	WR0ABB	146.82
Minneapolis	MN	W0TN/R	146.64
Long Island	NY	WB2NHO/R	147.375
Beaverton	OR	W7LJN/R	147.32
San Antonio	TX	WB5FZA/R	146.70
Milwaukee	WI	WB9ZCT/R	145.13
Los Altos	CA	W6TI/R	147.36
Los Angeles	CA	W6VIO/R	224.04
Washington	DC	WD4IWG/R	147.21
Chicago	IL	W9SRO/R	147.15
Billerica	MA	WR1ABP	147.12
Cherryville	NJ	WB2NQV/R	147.375
Rochester	NY	WB2AQQ/R	145.11
Dallas	TX	K5JD/R	146.97
Madison	WI	WR9AVT	146.76
Baltimore	MD	W3VPR/R	147.105

Note changes from the release of 8 December: 1) Call sign change at Phoenix. Old call was WB7AAC/R. 2) Milwaukee, WI and San Francisco, CA are new additions. Change from 8 January release: 1) Baltimore, MD added; San Francisco area (Los Altos) repeater designated.

There has been no change in the blockbuster programs coming up on the net: **3 March 1983** — Vic Clark, W4KFC, president of ARRL, "The Future of Amateur Radio"

2 June 1983 — Joe Reisert, W1JR, "Antennas and Antenna Systems, Where is the State-of-the-Art Going"

The repeater groups participating in the Teleconference Radio Net include the Long Island Mobile Radio Corps (WB2NHO/R), AMRAD (WD4IWG/R), Northern California DX Club (W6TI/R), and JPL (W6VIO/R). Many of the repeaters have extremely wide area coverage (e.g., mobile contact to 100 miles). Examples are Air Capitol Amateur Repeater Association (WR0ABB) and the Arizona Repeater Association (KA7DSY/R). The latter expects over 1,000 amateurs to be tuned into the net via their repeater alone.

The Teleconference Radio Net is pioneering ubiquitous two-way communication to inform, to learn and to inspire. The net is organized by the Honeywell Amateur Radio Club as a public service for all amateurs and to probe the frontiers of telecommunications.

For further information, contact Rick Whiting, W0TN, National Net Manager at 612/870-2071 (office) or by mail at 4749 Diane Dr., Minnetonka, MN 55343. □

Contact Worldradio for hamfest prizes.

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ARRL Forum

Norm Brooks, K6FO

Bill Stevens, W6ZM, Pacific Division Director of ARRL is a pretty relaxed gentleman these days. And why not? When he chaired the ARRL Forum at SAROC on 15 January 1983 in Las Vegas, Nevada, he had a packed house and no controversial issues to debate. He simply opened the forum to questions and answers.

Even the questions were slow in coming, so your reporter started things going by asking a question that has been bugging me for some time. Why is the ARRL message format different from military message format? The three military branches adopted a uniform format on 1 February 1983, but the ARRL's is different and has not changed.

The answer given is that the ARRL format was the same as the military many years back. Military had changed, but ARRL stayed with theirs. Both services, military and ARRL, preferred that traffic starting out in one system stay in that system if possible. But we all know that is not always possible, so the MARS manuals have pages of instructions for changing messages from MARS to amateur and vice-versa. They promised, however, to refer this to the person on the ARRL staff who handles liaison with the military.

A life member of ARRL asked why he should have to pay for a subscription to QEX, the new ARRL technical publication. He feels that all technical information should come through QST. Stevens answered that there were objections both ways — that QST articles were too technical and that QST articles were not technical enough. QEX was developed to solve the problem. Life members will have to pay for this, just as they pay for handbooks, etc.

Bill Stevens described recent changes in ARRL field structure. The former Section Communications Manager is now Section Manager with increased duties. A member suggested that affiliated clubs be chapters of ARRL. Stevens responded that one of the League's proposals to the FCC on the method of giving amateur exams could possibly lead in the direction of national representation through club membership.

Mary Lewis, W7QGP, Northwestern Division Director, pointed out that the changes of 1 January 1983 (Section Manager structure) were made as a result of a survey which indicated this is what the members wanted. She suggested we go back in QST and read how this came about. Also, if further changes are needed, we members can call for them through our Directors.

Bill Pasternak, WA6ITF, publisher of *Westlink Report* called on all amateurs to be publicity-conscious. News dissemination is so good that when an amateur in California has a tower zoning problem, it shows up in New York papers. Bill Stevens reminded us that one of the people in the "new" ARRL section is a public information officer for just that reason.

Speaking of publicity, the committee putting on the 1984 Olympics in Los Angeles is planning to use thousands of Amateur Radio operators for communications. When the amateurs were asked what they wanted most from the assignment, they answered "publicity."

The IARU

Carl Smith, W0BWJ, ARRL First Vice President and ARRL's representative to the International Amateur Radio Union (IARU), made some interesting comments on the IARU.

ARRL officials who attended SAROC in Las Vegas, Nevada, 14-16 January, included (left to right): Mary Lewis, W7QGP, Northwestern Division Director; Len Nathanson, W8RC, Great Lakes Division Director; Fried Heyn, WA6WZO, Southwestern Division Vice Director; Carl Smith, W0BWJ, First Vice President; and Bill Stevens, W6ZM, Pacific Division Director.

The ARRL is one of the largest members of the IARU. This does not give us any particular advantage, because the IARU has "one nation, one vote." The number of amateurs represented does not change the vote.

The World Administrative Radio Conference (WARC) of 1979 was successful for us because of careful preparation made with other member societies. Good relationships have been established and a momentum is going; it should be kept up. Smith is trying to maintain active liaison with the some 150 other member societies in the world.

Carl described the three regions into which the world radio matters are divided: *Region 1* — Africa, Europe and Northern Asia. *Region 2* — North America, Central America, Caribbean area and South America. *Region 3* — South Asia, Australia and South Pacific Islands.

The IARU has established a Master Executive Committee composed of three officers of the Headquarters Society and two representatives from each of the three regions. A problem exists in some countries, Canada and Chile being the most notable examples, where two competing Amateur Radio organizations attempt to represent their Amateur Radio operators to the rest of the world. In Canada, it's the Canadian Radio Relay League vs. the Canadian Amateur Radio Federation. In Chile, it's the Amateur Radio Club of Chile vs. the Federacion de Chile.

Mini-WARCs are scheduled every other year on many subjects. We must continue to properly represent Amateur Radio each time. All of this costs money. Each region levies dues to its member societies, and Headquarters ARRL budgets its share. It would be a big mistake to "save money" by cutting back on our IARU effort. □

SPECS distributes Amateur Radio info

The Southern Peninsula (California) Emergency Communications System (SPECS) has printed a brochure in order to "spread the word" about their organization to local residents.

Included in the brochure are photos of Ted Harris, W8RPA and Jim Koski, KT5W, demonstrating two of the services provided to the public by amateurs. Also included is basic information about amateurs, and various emergencies and events that amateurs have participated in.

The SPECS repeater is located at El Camino Hospital, 2500 Grant Rd., Mountain View, California. The repeater serves such agencies as: the American Red Cross, several police and fire departments, public schools, hospitals, as well as Moffett Field, the California Division of Forestry, the Office of Emergency Services, and the U.S. Geological Survey.

Listed in the brochure are names, addresses and phone numbers of District Emergency Coordinator Walter Read, W6ASH, and five area Emergency Coordinators — Dr. Sy Stein, WA6ROM (Mountain View); Jerry Starkey, WB6LIJ (Los Altos); Dr. George Downing, KJ6N (Palo Alto); Ted Harris, W8RPA (Stanford); and Walt Rees, WA6BAX (Sunnyvale).

—Information submitted by Charles McDermott, KA6NDX □

160-meter bulletin

Dennis Peterson, N7CKD

We have started what is known as the *West Coast 160-Meter Bulletin.* Our bulletin is devoted *to, for* and *by* Top Band operators. The bulletin is edited and published six times a year by myself — Dennis G. Peterson, N7CKD, 4248 "A" St. SE, Box 609, Auburn, WA 98002. We have a subscription fee of $7 U.S. and U.S. possessions. Canada and Mexico monies converted to $7 U.S. by way of money order or bank-certified draft. Overseas subscription rate is $8.50 U.S.

The purpose of the bulletin is to provide information as to DX operation, time, frequency and mode of operation. Also, a chance as to where and when to find various operators stateside for the WAS awards. We are also working on a WAUS (Worked All United States) Certificate specially designed for Top Band.

Other information contained in the bulletin pertinent to Top Band operation is as follows:

1) articles on various types of receive and transmit antennas; 2) Beverage and loop antennas; 3) gadgetry circuits for improving station receive capabilities (a) preamps, (b) T-R Switches, (c) broadcast band interference filters; 4) circuits for designing one's own tuner and transmatch network for 160M; 5) articles on propagation, auroral conditions and ionization; 6) sunset and sunrise tables for 160M openings (a) how to interpret these tables, (b) interpretation of propagation charts.

We try to discourage operation in the DX windows and show the newcomer to Top Band, and the proper operating procedures on 160M. We hope to be able to encourage more operators to join us on Top Band and share with us their views and ideas on 160-meter operation.

Also, we are contemplating a Top Band contest for mid-summer (around 4 July) if we can find a sponsor or obtain financial assistance, as our subscription fee does not have a built-in basis for awards or contests. □

Coverage great for Roses Parade

As soon as the 1982 Tournament of Roses Parade was over, planning began for the 1983 parade. This parade is one of the largest, most expensive parades held in the world and has been held for 94 years. The most up-to-date technology is used each year to improve the parade. Several people work year-round preparing for the parade, while others are volunteers, such as the Amateur Radio operators who do communications for the parade officials.

Communications is where Amateur Radio shines in this event. All parade officials are called "white suiters." Every "white suit" has a radio amateur nearby to handle communications to the command trailer. The command trailer is manned by Amateur Radio operators who are in constant contact with the various parade officials. They are aware of what is happening at all times during the parade.

Five years ago, Ernie Williams, WB6BAP was asked by a parade official if he thought amateur TV could be beneficial. Ernie took two B&W cameras, giving partial coverage. The officials were so impressed that ATV has become one of the most important modes of communication for the parade.

Each year has seen improvements in the ATV coverage of the parade. The second year, color cameras and TVs were used. The third year, a camera, a transmitter and antenna were mounted on a motorcycle manned by Tom O'Hara, W6ORG, giving on-the-spot mobile coverage. 1983 saw many improvements to the ATV system.

Amateur TV operators in the command trailer this year were assistant chairman Phil Smith, WB6LQP and Mike Ferraro, K6ZSR. Phil was supervisor for all scheduling and operations. Ernie was chairman and held camera location 1 above the grandstand at Orange Grove and Colorado Boulevards. This is the major location, as the parade must take a turn from Orange Grove onto Colorado Boulevard at this point. Below Ernie's camera location in the grandstand, a TV monitor was set up to enable the head parade official to monitor the scenes from the different camera locations.

An Amateur Radio operator with a 2-meter hand-held was positioned there to provide communications for the official. For the past two years, Brenda Chatham, KA6OXN has had this responsibility. Camera 2 was operated by Bob Kneebone, N6AZV; Llyle Bradt, WB6SFE: and Hugo Annos, KA6CGD on top of the Telco building. A third camera was installed on top of the Crocker Bank building, operated by Rick Nimms, N6ZT and Gary Heston, W6KVC. Camera 4 — a critical location — was operated by Mike Collis, WA6SVT; John Chatham, KA6HXX; and Joan Chatham, WD6BZN. At this location, all camera transmissions except camera 1 were received on 434 MHz, and retransmitted on 10 GHz to camera 1's location. This microwave transmission was down-converted to 1241 MHz and sent to the command trailer.

All coordination of cameras was done on 2 meters with the help of the Telco Radio Club Repeater, W6MPH. This repeater is owned and operated by the Telco Employees Amateur Radio Club. All 434 MHz ATV transmissions were received through the Mt. Wilson WA6SVT ATV repeater, which has coverage from Santa Barbara to San Diego. Camera 5 was located on top of a van at the intersection of Colorado Boulevard and Sierra Madre. Camera 5 was manned by Gary Layton, WB6VVV and assistants John Parke, WA6BRI and Richard Soikkeli, WD6ERY.

For on-the-spot coverage, there were two motorcycles with ATV cameras and transmitters. No. 1 motorcycle was manned by Tom O'Hara, W6ORG, and No. 2 motorcycle by Mark Fischer, WB7JAC. This mobile operation gave coverage that fixed positions could not possibly handle. In addition, in the streets were two "creepy-peepies." A creepy-peepy is a camera with a low-powered ATV transmitter mounted on it. This equipment can be easily maneuvered in crowds. In fact, there was one incident when a float caught fire and was burned too severely to continue in the parade. Coverage was given to the officials by a creepy-peepy as other cameras were unable to get close enough to the float to see the damage.

A receiving monitor was set up at the Pasadena city courthouse for the use of the sheriff's department.

This year was one of our best for coverage. The parade officials commended us all and are looking forward to our help next year. Next year will be even better, with added coverage and other improvements. Changes are already being planned!

— *Simi Settlers ARC, Simi Valley, CA* □

Clift for ARRL

Norm Brooks, K6FO

If you are an ARRL member and attended Dale Clift's seminar at SAROC on 14 January 1983, you would feel good. Dale Clift, WA3NLO is Deputy Manager of Membership Services for ARRL. SAROC wisely gave him a one-hour seminar all his own. He told us about some of ARRL's activities, and they were good to hear.

Dale Clift, WA3NLO, Deputy Manager of Membership Services for ARRL, had a one-hour seminar at SAROC, 14 January. Those who attended the seminar heard Clift talk about several of ARRL's activities.

Legal problems

Do you have an antenna ordinance problem? Don't despair. The ARRL is trying to be a clearing house of legal information to deal with local zoning cases. Two excellent reference books are available if you need them.

There is a blue-covered book, *Answers to Your Questions About Local Antenna Regulations.* This book tells how, in a legal case, to present Amateur Radio in a good light. Also, for your attorney, there is a light blue-covered book, *Attorney's Portion — Legal Kit Revision, January 1982, Prepared by the Office of the General Counsel — ARRL.* This book gives him (or her) a summary of pertinent cases over the past 10 or 15 years. It gives a brief summary of each case. Most importantly, it will save a lot of time in researching your case.

The League may help you litigate, but it depends on the case. If winning your case would set a precedent that would establish "good law" to help many amateurs in the future, they'll be in there to help. If the issues in your case will benefit only you, you can't expect them to get excited.

The League has a new program called the Volunteer Counsel Program. A radio amateur attorney would agree to give you an initial consultation free of charge. He will help you decide what to do — how to fight your case. The volunteer attorney will have all of the legal information from ARRL headquarters and will be able to effectively match those cases to your local situation.

There are two kinds of antenna problems. First, deed restrictions. When you sign a deed to property, you make a private contract that you agree with the conditions of the deed. Many new subdivisions have all utilities underground and may have some restrictions on antennas. You can't very well fight those restrictions when you have already agreed to them.

The other situation is where local governing bodies (cities, counties, etc.) pass zoning ordinances limiting the height of antennas. In these cases, *your* rights are being limited, and you can sue. One amateur not only beat such an ordinance as being a violation of his civil rights, but also won $8,000 in attorneys' fees.

Public Law 97-259

Dale said that the most important provision in the Goldwater RFI Bill is that it clearly states that radio frequency interference (RFI) is a condition regulated by federal authorities, not cities, counties or states. It clarifies exclusive federal jurisdiction. Unfortunately, this is not a cure-all because local authorities looking for a loophole are now passing tower ordinances based on *safety.* Massachusetts is going even further, stating that radio frequency energy is a health hazard! ARRL has filed a 20-page response in the Massachusetts case.

No-code license

ARRL has been working for at least two years on plans for amateur volunteers to give amateur examinations. Now that legislation will allow it, the League hopes to have something firmed up soon. So what comes along to throw a monkey wrench into the machinery? A proposal for a no-code license. The FCC is expected to make such a proposal shortly, and we will all have an opportunity to comment on it. The Amateur Radio community is reacting strongly. For example, at the meeting, Adrienne Sherwood, WA6YEO of Lancaster, California — who has been teaching amateur classes for five years — firmly stated, "If it's for a no-code license, I won't teach it!" □

The inside story on TEN-TEC's CORSAIR.

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Full output at 100% duty cycle, *all* bands, *any* mode, even RTTY and SSTV. 200 W. input.

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Variable Notch Filter—adjustable frequency, better than 50 dB depth.

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WWV Reception 10 MHz band.

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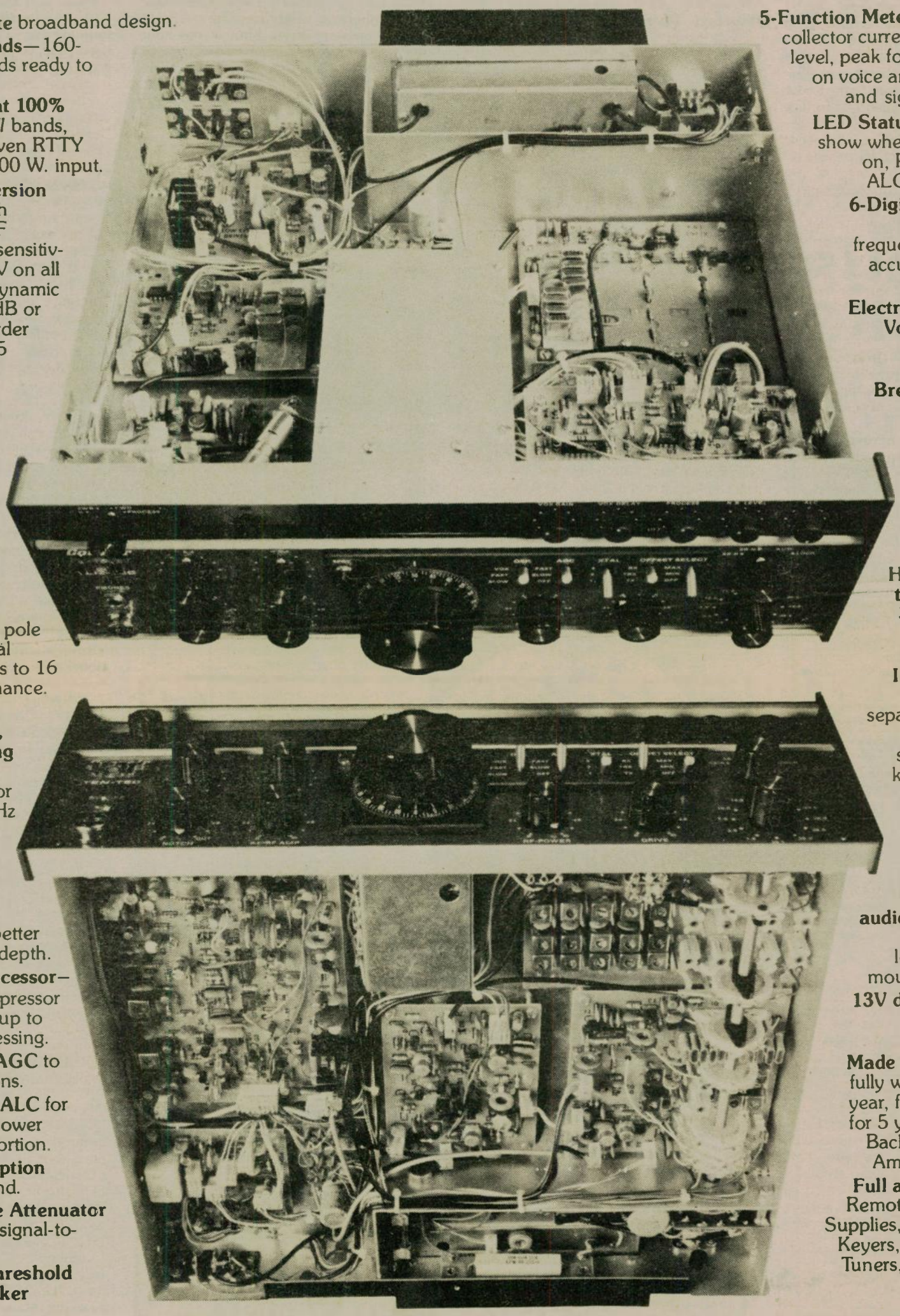
Variable Threshold Noise Blanker



5-Function Meter—monitors collector current, processor level, peak forward power on voice and cw, SWR, and signal strength.

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Electret Polarizing Voltage at Mic. Jack.

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Students excited by this teacher's class

Florine Schroder, KA9BUZ

In the August 1982 issue of **Worldradio**, the efforts of an English teacher — Joe Fairclough, WB2JKJ — at Junior High School 22, Manhattan, New York City, were reported ("Students discover learning is fun"). He is changing the attitude of students toward learning through his course called "English Through Ham Radio." This is being accomplished, as previously reported, through the use of Amateur Radio publications, such as **QST**, **Worldradio**, **73**, **Ham Radio**, etc. Conventional textbooks are used only as a supplement. Morse code is also a must in his course.

The 1982-1983 school term is now well under way, and this is an update of the progress and results of Joe's innovative teaching efforts.

The reading scores of the students have increased to near grade level. Attendance has improved close to 85 percent. The students involved in this program have shown a marked decrease in anti-social behavior, and this fact is backed by social, guidance and case workers. Joe's classroom is the only one in the school to have no record of violence or need to summon parents or authorities *ever*.

There are other positive signs that the program is making an impact on these children. Joe is most pleased with the fact that a large number of his students are going on to high school. They claim Joe's course helped them make the decision to stay in school.

New students entering JHS 22M for the first time are asking to be assigned to Joe's English class because they have heard so much about it.

As much as the New York Board of Education approves of Joe's methods and the results, they are still unable to provide sufficient funds to cover the costs involved which total between $1,100 and $1,200 a year. Twice a year, Joe's kids have fund-raising activities, but he has been using his own money to keep this program afloat. You can help by making a donation, large or small, (which is tax deductible), to J.H.S. 22 Ham Radio Fund, and mail to JHS 22 ARC, 111 Columbia St., New York, NY 10002.

With so much interest generated in Amateur Radio, Joe is now conducting "after school" classes three days a week. Ten of his students have already applied for a Novice Class license, and about 20 percent of his students intend to try and qualify.

Joe must be doing something right, and he surely deserves our support. There has been an exciting recognition of this English teacher who uses such unconventional methods to get the greatest potential possible from his students.

Through the efforts of a good and long-time friend Lt. Col. Roger Wells, W4IPM, the accomplishments of Joe Fairclough were brought to the attention of President Ronald Reagan. As a result, the following letter was received by Joe's students.

18 November 1982

Dear Students:

Recently I learned of the amateur ham radio operation project you, along with the faculty and friends of Junior High School Number 22, have undertaken. Having read the details which Colonel Roger Wells supplied to my office, I must tell you how impressed I am with this worthwhile endeavor. I can personally attest to the opportunities which radio work can provide. As you may already know, my first job after putting myself through college was with a small radio station out in Davenport, Iowa, as a sports announcer.

It is encouraging to know that students like you are combining your efforts with others

Christine Nieves (left) and Amy Baez are two of the students who enjoy learning English through Amateur Radio in Joe Fairclough's class.

Gathered around Joe Fairclough, WB2JKJ are several of his students. From left to right: Richie Soto, Eric Rodriguez, Sabrinna Cowans, Aaron Rodriguez, Audie Soto, Joe WB2JKJ, Tina Saunders, Mike Gonzalez, Tony Nieves, Damian McMillan.

that you can share and enjoy together the freedoms which we are so fortunate to have in this country. The freedom to speak out, to put forth personal initiative, and the freedom to reap the rewards of a job well done. The educational experience this project allows you is one that will help you to make sound judgments when you become tomorrow's decision-makers. Congratulations and keep up the good work!

With my best wishes now and for the years ahead,

Sincerely,
RONALD REAGAN

With such encouragement from the president of the United States, perhaps you will also give your support. □

Amateur Radio operator Jim Luciani, WA2JNN — high school student of Egg Harbor, New Jersey — takes a chess move by radio in the first game of the Chess & Amateur Radio International club. Playing him was Mike Sakarias, KL7KE, a school teacher at the Eskimo village of Goodnews Bay, Alaska.

Chess by radio

The ancient hobby of chess and the modern hobby of Amateur Radio are now joined in an organization called CARI — Chess & Amateur Radio International.

European countries have joined countries as far as Australia and New Zealand in playing chess over the air, although most members are in the United States.

Jim Luciani — a 17-year old Amateur Radio operator from Egg Harbor, New Jersey — played the first official CARI game with Mike Sakarias of Goodnews Bay, Alaska, which is a remote Eskimo village.

Sakarias says, "Since coming to the Alaskan bush, my chess playing has faded because there are not many opportunities for it up here. But there is lots of time for Amateur Radio. I am delighted that both hobbies should be brought together like this."

Kirk McMillan — of Christchurch, New Zealand — recently completed a chess game with CARI founder, Vince Luciani, also of Egg Harbor, New Jersey.

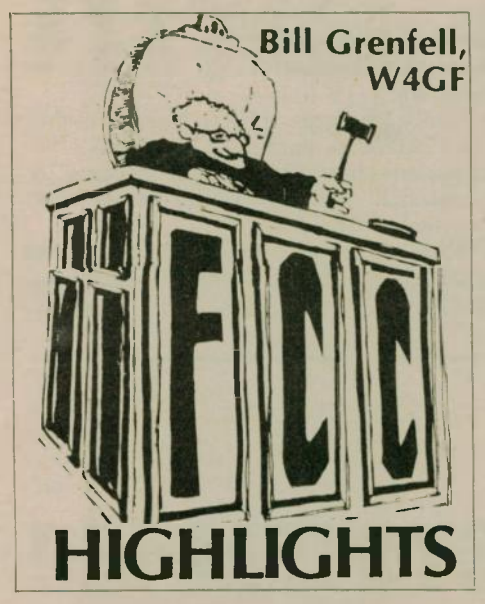
"Chess playing over the air is entirely different from over-the-board or even computer chess," said McMillan. "Playing an unknown opponent thousands of miles away, waiting for his best moves to come in all so mysteriously against your best strategy, is hard to describe. It adds something quite new to chess which must be experienced to appreciate."

According to Luciani, chess players who are not radio amateurs have also joined CARI's membership, including doctors, lawyers and attorneys, as well as musicians, mechanics, surveyors, the handicapped and several retirees (not to mention, these days, the unemployed).

"We have ways of setting up chess players who are not radio amateurs so they can play chess over the air. We also show them how they can become radio amateurs, themselves, if they are interested.

"Only 5 percent of CARI's membership are electronics engineers or technicians. Most are chess players who became interested in Amateur Radio and studied for the license."

More information on CARI can be had from: CARI, P.O. Box 682, Cologne, NJ 08213. □



The case of the West Coast cable TV leakage into the amateur 2-meter band has not yet been settled. In October 1982, the cable company was served with a Notice of Apparent Liability in the amount of $6,000, of which $2,000 was for excessive radiation, and $4,000 for failure to correct harmful interference to a radio communications (Amateur) service. As this was written, the cable company had a few days left in which to file a final appeal after which FCC's next step will be to issue its Final Order disposing of the case. Whether the Commission will require payment of the full amount of the proposed fine or a reduced amount is not known but should be specified in the Final Order. If the cable company balks at paying the fine, collection would be turned over to the Department of Justice.

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Banning use of cable channels "E" and "K" to avoid cable radiation interference to amateur frequencies may be too much to expect, according to an FCC staff official, when asked about the chances of approval of ARRL's RM-4040 petition. He suggested that, rather than keep all cable operation off of the channels, it would be better to allow access to the cable systems and require that they fix the leaks if and when they occur.

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The U.S. Senate has given its advice and consent to ratification of the 1979 World Administrative Radio Conference (WARC-79). Next, it is up to the president to sign it. Then the instrument of ratification is sent to the International Telecommunications Union (ITU) at Geneva, Switzerland. FCC's Notice of Proposed Rule Making (NPRM) to apply changes required for confirmation of its licensees to the WARC-79 regulations was available in limited quantity early in January 1983. The docket number of the Notice is 87-39.

A decision on whether to have a no-code license in the Amateur Radio Service was scheduled for the FCC's 20 January meeting. ARRL had requested that the Commission withhold its decision on this matter until after the "amateur community" has absorbed ". . . its new responsibilities under the volunteer licensing program." A delay of at least 18 months was asked.

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FCC's answer to ARRL's volunteer license examination program petition, RM-4229, was scheduled for consideration by the Commission at its 20 January 1983 meeting. See last month's 'Highlights' for a description of FCC's Docket 82-727 proposal for conduct of Novice Class amateur license examinations.

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FCC denied ARRL's RM-3314 petition to allow Novice Class amateur licensees to use telephony in the 220-225 MHz band. Acting under delegated authority, the Chief of the Commission's Private Radio Bureau dismissed the petition in his Order of 16 December 1982. As a basis for his decision, he cited the Docket 20282 proceeding (December '74 — March '79) in which "The Commission thoroughly considered the structure of the Amateur Radio Service license classes. . .". "An estimated 4,000 comments and reply comments were filed in that Docket." "Significantly, the Commission amended its rules, effective 23 July 1976, so that Technician Class licenses would also carry the full privileges of the Novice Class license; thus emphasizing, by implication, the separateness of the Novice license and its distinctive telegraph mode."

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The "AMTOR" system of "error-free" radioprinter amateur station operation was scheduled for consideration on FCC's 27 January agenda. Because it uses the "Moore" rather than the "Baudot" code, approval and probably a minor amendment of Section 97.69 "Digital communications", will be required. While the latest amendment to 97.69 provided use of practically any digital code on amateur frequencies above 50 MHz, only Baudot and ASCII may be used on lower amateur frequencies (see FCC's 09/14/82 Report and Order, PR Docket No. 81-699). While both use seven elements per character, Moore always uses four marks and three spaces. After sending three characters, a reply that the three characters received contained the requisite 4/3 mark/space bits is automatically required before the next three characters are sent. This system, identified as "SITOR", is now being used on the high frequency bands of the Maritime Radio Service and provides very reliable performance in the presence of the fading, static and interference encountered on the high frequencies. ARRL requested FCC approval of AMTOR in its recent (RM-4122) petition. Approval by direct Order was believed possible.

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Under the authority of Public Law 97-259 recently adopted by the U.S. Congress, FCC has proposed to quit issuing citizens band licenses to individuals. A "blanket authorization" will save FCC an estimated $360,000 per year. It should be noted that this would not diminish, in any way, the CB equipment user's responsibility to obey the CB rules or liability to fine or other authorized punishment for violation of the rules.

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Certification that a Novice amateur license applicant has passed a code test, before the written test can be obtained by the examiner, is no longer required by the FCC facility at Gettysburg, Pennsylvania.

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Violations of the ban on amateur operation between 10.109 to 10.115 MHz have dropped from a high of 36 per day to one or two during last November, according to FCC's Field Operations Bureau Chief. By early December, he felt that the level was tolerable (according to an *ARRL Report).*

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Amateur Radio licensees may not be used as a patrol force in anticipation of emergencies, under the RACES (Radio Amateur Civil Emergency Service) rules, as an alternative to government or non-government radio service already developed for the purpose, according to the Chief of FCC's Personal Radio Branch, of the Private Radio Bureau. A manufacturer for a government agency used employees who were amateurs and their equipment to patrol the fence around the plant facility for protection against a threatened protest demonstration. Government frequencies were available and appropriate for the communications required. The Amateur Radio Service should not be used as an alternative to established radio services, except for the emergency situations outlined in the rules. Rules interpretation which sometimes seem to limit amateur activity can also be used to protect amateurs from misuse.

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The chance that amateur licensees will be given the opportunity to choose their station call sign letters is very remote, according to a member of the Private Radio Bureau staff. Budget limits preclude any favorable consideration of such a procedure in the forseeable future.

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The ARRL has petitioned FCC to extend amateur license terms to 10 years. Appropriate amendment of the Communication Act by Public Law 97-259 last year gives the Commission authority to

Amateur Radio call signs

Amateur Radio operators often ask the FCC what call signs have been assigned lately. This list shows the last call sign in each group to be assigned for each district, as of 1 January 1983.

Radio District	Group A	Group B	Group C	Group D
0	KW0T	KD0AF	N0EKN	KA0PKL
1	KN1K	KB1FD	N1CNC	KA1JSQ
2	KY2E	KC2VR	N2EAO	KA2RAW
3	KM3L	KC3FO	N3DFE	KA3KIU
4	WJ4O	KF4QX	N4IDZ	KB4DKN
5	ND5V	KD5VJ	N5FOI	KA5PVO
6	NQ6Z	KF6IT	N6HYE	KA6YKP
7	KY7Y	KD7FH	N7EUU	KA7OXP
8	KZ8H	KD8CC	N8EPF	KA8RFJ
9	KS9B	KC9WP	N9DRR	KA9OSN
HI	WH6G	AH6EO	KH6WI	WH6AVG
AK	WL7Q	AL7EP	KL7ZE	WL7AYL

For more information about call sign assignment in the Amateur Radio Service, see Section 97.51 of FCC rules, or write to the FCC, Consumer Assistance Branch, Gettysburg, PA 17325. □

do so. The petition is identified as RM-4249. Section 97.59 is the rule which presently limits amateur terms to five years.

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Current assignments and incomplete plans to accomodate them elsewhere are cited as reasons why the new WARC-79 bands at 18 and 24 MHz cannot be made available to amateurs at this time. The foregoing was stated in the Commission's 12/22/82 Order, dismissing a petition for immediate allocation of the bands to the Amateur Radio Service on a shared, secondary basis. The petition was filed by Robert Haviland, W4MB of Daytona Beach, Florida on 22 November 1982.

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Provision in Public Law 97-259 for use by FCC of "voluntary and uncompensated services" to create questions and conduct examinations for amateur operator licenses may raise a problem as to what is and what is not considered to be "compensation." For example, if an amateur organization or magazine publisher used its salaried employees who are licensed amateurs to create questions and conduct examinations while at work, would it exceed the restrictions intended by the U.S. Congress when it adopted PL 97-259? One attorney has referred to the use of a "conflict of interest" clause in the reference to administering examinations, as precluding any compensation, while deliberate deletion of such a clause from the text concerning creation of questions is intended to permit compensation for such activity. Already, ARRL has begun preparing questions for submission to FCC. A "bank" of 500 questions for each 50-question examination is considered a desired minimum by the FCC staff concerned. □

No-code

(continued from page 1)

controversial matter that can be raised with the Amateur Radio community. For many amateurs, it said, code stands as the absolute cornerstone of the service.

It noted a survey conducted for the ARRL, showing that a large majority of the amateurs responding believe code is essential or important for operator privileges.

Once an individual becomes involved in the amateur service, the FCC said, there will be a desire to learn more about radio and the offerings of the service. Codeless-class licensees may develop an interest in code, it said, just as other licensees usually develop interests in greater knowledge of radio theory and greater proficiency in code.

The codeless Technician Class license would retain the other current requirements for that class: examination on basic law and rules essential to a beginner's operations and sufficient elementary theory for their comprehension (Element 2 of the Amateur Radio Operator License Examinations) and general amateur practice, regulations on operations and apparatus and applicable laws, treaties and rules (Element 3). Those also are the examinations in theory, practice and regulations required for the General Class license.

The license would confer all operating privileges on all amateur frequencies above 50 MHz, as at present, including use of all emission modes.

The principal difference between a codeless Technician Class license and the alternative Experimenter Class license would be in the subjects and level of the written examination an applicant would be required to pass. For the Experimenter Class, the Commission proposed a single new examination element, Element 5.

It asked for comments on the *level* at which the exam should test knowledge of regulations and theory. Suggesting that the new element might be composed of existing elements, it asked for comments on which elements should be contained or, alternatively, whether an entirely new syllabus should be developed.

The FCC proposed that the Experimenter Class license, if adopted, convey all amateur privileges on frequencies above 144 MHz. Yet it noted there is nothing to prevent authorization of the frequencies from 50 MHz to 144 MHz and said it intended to be flexible on the frequency issue. It also noted that establishment of a new class would create a substantial administrative burden involving new or modified examinations, revised application forms and other publications and changes to data processing programs and procedures.

The FCC observed that both Japan and Canada have significant numbers of amateurs and that both provide for a license class without a code requirement.

The FCC declined ARRL's request that it delay action on the codeless license class for 18 months while a volunteer amateur license examination program, proposed in concurrent action (PR Docket No. 83-27), is put into effect.

Action by the Commission 20 January 1983, by Notice of Proposed Rulemaking (FCC 83-23). Commissioners Fowler (Chairman), Quello, Jones, Dawson, Rivera and Sharp.

The deadline date for comments is 29 April. Reply comments due by 31 May. □

Curacao world record

John Kanode, N4MM
ARRL Board DXAC Liaison

After setting several world records for the multi-multi phone section in the CQ WW DX Contest from Curacao, it was decided to make an attempt on the CW multi-multi world record. Wally Eckles, W8LRL, myself and others in the Potomac Valley Radio Club came to the conclusion that the CW multi-multi world record was too low and if any attempt were to be made to break it, it had to be done in 1982.

Some thought the sun spot cycle was too far gone for such a record. We figured that if conditions would just stay normal and with good operators and planning, we could do it. We set a goal of 25 million, which was five million above the existing record.

Wally was the trip leader and took care of making the arrangements and finding operators. Making the arrangements was time-consuming enough, but finding enough operators was difficult. Over 100 amateurs were called before we found the 12 to 14 we wanted.

Our crew was as follows: Bert Aaron, K2BA; Joe Krone, WA2SPL; Dave Neben, WD4AXM; John Laney, K4BAI; John Kanode, N4MM; Jack Reichert, N4RV; Ron Bailey, AA4S; Dave Hodge, AA6RX; Rob Van Geen, WB6SHD; Bruce Swearingen, N6TU; Mike Colesante, KC8C; Jeff Hartley, N8II; and Wally W8LRL.

Wally made all the arrangements with the Coral Cliff Hotel and Beach Club and with Lucy Smith, who owns property on the hotel complex. Jose Cijntje, PJ2MI was very helpful and we got the special call of P42E for use during the contest. Chet Brandon, PJ9EE — who lives close by and has over the years been the keeper of antennas, rotors, coax and whatever we left behind on previous trips — conducted an inventory of what was there; with that info, we knew what we needed to take. It was decided to ship some coax and 40 feet of small tower. The tower was to be the 160 vertical. Everything else we needed was hand-carried down.

Most of us arrived on the island on 19 November, but nothing was done until the 20th. The biggest task was to put up the antennas, which were to number 25 for this trip. Most of the beams were on the island but had to be taken apart and cleaned up. The salt air is very hard on antennas there, and with cadmium plate hardware, they were a mass of rust and corrosion. All of the beams had to be pulled apart and cleaned at each junction and all new stainless hardware installed. All of this had to take place before anything went up. One poor connection in a strong RF field will kill the whole operation. All antennas had to work perfect, no ifs, ands or buts.

After days of work in the hot sun, the antennas were up and no one got hurt except for skin cuts and blisters on the hands. Several tools were dropped from a 90-foot tower, but no one was hit. I had a hard hat on, but others did not. If anyone plans to go on anything like this where antennas are being installed on towers, be sure to bring a hard hat. When Thursday afternoon arrived, we had all the antennas up, more or less. Below is a band-by-band breakdown of what we had.

160 — 93-foot vertical with over 120 radials, three each Beverage antennas; 80 — 66-foot vertical with over 150 radials, five each Beverage antennas; 40 — Hy-Gain 402BA 2-element at 90 feet, dipole; 20 — 5-element Hy-Gain beam at 45 feet, dipole; 15 — 5-element Hy-Gain at 45 feet, dipole; 10 — 5-element homemade beam at 50 feet, 4-element Finco fixed beam at 25 feet, dipole. **Multiplier station** — Wilson system one triband beam at 18 feet, dipoles for 40, 80 and 20.

A 10 MHz dipole was also put up for this band. This band is not for contest use and contacts made here before and after the contest were just to provide QSOs for those who were using this band.

The stations were mostly Kenwood TS-830S transceivers and Heath SB-220 linears. Several Drake C lines were used along with Alpha and Yaesu linears. Two portable AC generators were standing by just in case the commercial power went off, which happens often on Curacao. Again we were lucky; the power never went off during the contest. There was one outage on Thursday, but this was scheduled and we knew about a day in advance.

At last the contest started, and for the most part things went well. There was lots of rain, which caused the 80-meter vertical to arc over and create noise, which put 80 off the air for several hours. At times, the 40-meter station caused noise in the 20-meter station. Despite these minor problems, the contest went well, and after it was over we had beaten the old record by more than 3 million points. We did not make the 25 million level, but it looks like the final score will be between 23 and 23.5 million. At this time, we did not know if any of the other multi-multi stations in the world had broken the record. The only serious competition was from the OH0W group, and we found out later that they only had 15 million.

The results of the contest are listed below (before duping the logs):

Band	QSOs	Zones	Countries
10	2810	29	92
15	3680	32	104
20	3208	36	113
40	2164	29	80
80	1140	22	60
160	408	12	28
Total	13,410	160	477

Using a factor of 2.98 and removing 10 percent for dupes leaves a score of 23 million. At present, the dupe rate looks more like 7 percent, if this is the case, the score will be 23 million plus.

Overall the operation was one of the best I have been on. Everyone got along well with each other, and there were very few problems. I am sure a lot of this was due to the large amount of planning that Wally put into this before we left. A good example of this was the erection of the 93-foot 160 vertical. That was something to see. All the operators were excellent and gave it their all. I am sure without the minor problems we could have made the 25 million, but I guess we were lucky we did not have more problems. Monday we took all of the antennas down.

The trip down and back for the most part was uneventful; we did have some problems going down with luggage. It seems like things in pasteboard cartons get lost. We did get our luggage but we got charged for one of them. Warning: if you go on one of these types of trips, do not put things in pasteboard cartons. Put everything in regular suitcases. We have had repeated problems with the airlines over the past several years and all involved luggage in pasteboard cartons. We hand-carried as much as possible and found it very helpful; it puts your mind at ease knowing that your radios will be there when you get there. We even hand-carried on SB-220 linears and put them in the overhead. No problems. Going through the Miami Airport was better than it used to be, and coming back was a breeze.

For those who want QSLs, the manager is Joe WA2SPL. He is handling only cards for P42E. For N4MM/PJ2 QSLs, send to N4MM.

A slide presentation of this World Record Operation has been produced and will be shown at several of the major radio conventions. If anyone is interested in the presentation for convention use, contact N4MM, RFD 1, Box 73A, Boyce, VA 22620. □

DON'T FORGET . . .
Include first and last names with call signs.

Foothill Electronics Museum

Forty miles south of San Francisco and 30 miles north of San Jose overlooking I-280 — "The World's Most Beautiful Freeway" (so it's labeled) — is a museum that should be visited by anyone interested in electronic communication, amateur or professional. Old-timers can go back to the days of spark and arc; young-timers can trace their electronic roots that presaged today's solid-state era.

The Foothill Electronics Museum has an interesting history of its own. The core of the collection was started by Doug Perham, an associate of Dr. Lee DeForest when DeForest was doing vacuum tube development as an employee of Poulsen Telegraph and Telephone Company in Palo Alto in 1912. Perham later became a collector and in the 1950s was operating a private museum in Almaden, south of San Jose. In severe weather the building proved inadequate and the collection which culminated Perham's life work was at risk. Several influential members of the local electronic community including Bill Eitel, Ralph Heintz, Sr. and Earl Goddard of the IRE decided that the collection should be preserved, and with the Perhams organized the Perham Foundation.

Finding a new home for the collection proved to be time-consuming; in the meantime, the artifacts were put in storage for safekeeping. After considering various possibilities, an agreement was made with the Foothill College District in 1964 for a new building on the college campus to house the collection. Local industry responded to the building fund campaign and the present building was completed in 1969.

The original Perham collection has been augmented during the years by equipment donations from Varian, Hewlett-Packard, Ampex and other local industries. The most recent acquisition is an excellent collection of broadcast receivers of the 1920-'30 era. Restored and refinished by Bill Gibson, W7BVV of Salem, Oregon, this collection was given to the museum following Bill's death in 1979. The museum was selected as the most appropriate place to display these outstanding examples of the techniques and workmanship of their period.

Len Lansdowne, W6FKF — curator of Foothill Electronics Museum — shows early DeForest/Marconi triode next to Varian high-power klystron.

Among the older displays are the first regular broadcast station, FN/KQW San Jose (KDKA notwithstanding), two 1kW Western Electric broadcast transmitters, and an outstanding example of an amateur breadboard transmitter of the early '30s. The tube collection includes an early DeForest audion, a Varian megawatt klystron for 450 MHz, and a 50kW medium frequency water-cooled triode.

The museum is now operated jointly by the Perham Foundation and Foothill Community College. The museum offers a variety of innovative and exciting classes in the history of electronics, the history of the small computer, space science, and astronomy topics. Two radio amateur clubs — EMARC (Electronic Museum Amateur Radio Club) and FARS (Foothill Amateur Radio Society) — help with the museum and operate the club station WB6WSL located in a special alcove. These clubs and PARCA (Peninsula Amateur Radio Computer Association) hold their regular monthly meetings in the museum classroom and have occasional flea market-swapfests in the adjacent parking lot.

Support for the museum is welcomed in the form of membership in the Perham Foundation ($10 per year, tax deductible), donation of suitable artifacts, preparation of exhibits, or participation as a docent.

From Interstate 280, north or southbound, take the El Monte exit. Southbound, the building is recognizable from the freeway by the observatory dome and the prominent quad antenna. Hours: Thursday & Fridays — 9:00-4:30; Sunday — 1:00-4:30. Other hours by appointment. Phone (415) 948-8865, Ext. 383. □

AMATEUR RADIO PUBLIC SERVICE

Santa comes to Culebra

Linda Turner, WD4OCI

'Twas the night before Christmas, and all week little Jenny Malik had been questioning her father and mother about the existence of Santa Claus. The 5-year-old child and her parents are three of the 900 people who live on the island of Culebra, Puerto Rico — a small dot of land in the Caribbean Sea, halfway between the mainland of Puerto Rico and the island of St. Thomas in the Virgin Islands.

Culebra, because of its geographical location, has never seen a white Christmas, nor do its youngsters often get treated by a visit from Old Nick. I think the reindeer would have lots of trouble negotiating the short and narrow runway of the tiny airport, nestled in a slit of flat land between the hills.

This year, another question puzzled Jenny. "Daddy, can Santa really talk to me on your radio?" You see, Huss Malik had recently earned his Novice ticket (WP4CPE) and had just installed his ham shack in a little room adjoining his daughter's bedroom. Jenny would sit alongside her father as he worked his CW contacts every day. One evening his dial passed by the frequency of 14.290, and Jenny heard the deep voice of Santa Claus talking with some children. Huss had a difficult time explaining to his curious daughter that because of the Novice restrictions, Santa would not be able to talk to her this year.

On the day before Christmas, Ron and I were in Fajardo, Puerto Rico, just 20 miles to the west of Culebra. I had had a CW contact with Huss that morning, and in the course of the QSO Huss mentioned, "Gee, it sure would be great if Jenny could talk to Santa *THIS* year." We had planned to sail *Moon Shadow* — our 42-foot ketch — in that direction, but the 25 to 30 knot winds were going to have to subside before we began that beat to wind. Besides, we were looking forward to a sumptuous Christmas feast the following day at the marina where we were staying, so we told Huss not to expect us for at least two more days.

Small craft warnings were posted; no way were we going to venture out in that weather! Yet, we thought of how thrilled Jenny and her dad would be if we could get there in time to tune up his radio and try for Santa Claus. Besides, we knew our boat would be able to take it, so we tidied up all our loose gear and prepared to leave.

We reached our destination about 8:00 that night. The trip was not an easy one, but not unlike some of the passages we had made in our voyage from Florida to the Virgin Islands. After dropping the anchor in the picturesque harbor of Ensenada Honda, we hurried ashore to visit Jenny and her parents, because we were not sure of Santa's participation in the net on Christmas Eve. Surely he would have to QRT early to begin loading his sleigh.

Hooray! We were in time, but Huss had already put his daughter to bed because he figured we were not coming. After setting our dial on 14.290, we found that Santa was at the home of Bob Sternberg, AA4EE in Ft. Lauderdale. Santa was busy talking to some youngsters from Texas, and Bob's beam was pointed in that appropriate direction, so he did not hear my call. Huss woke Jenny up, and she sat there, half asleep, yet so anxious to talk to Santa. She had been hoping for a "Jungle Jim" all year and just knew that a few words to the bearded jolly old fellow would make her wish come true. Finally, to our distress, Bob announced that Santa would have to leave a little early, and so with much disappointment, Jenny trudged off to bed.

However, another operator heard my call and relayed the information to Bob, telling him that there was a maritime mobile, a YL, calling. Bob's intuition was correct, for he knew it was me, WD4OCI. He turned his beam southeast, picked me up, and at the same time Huss woke Jenny for the second time that night. She came to the mike just in time to hear Santa's voice directed to her. Naturally, there was a brief "cat-got-my-tongue" spell, but finally she made her wishes known to Santa Claus. The next morning Jenny woke up to find her much hoped for "Jungle Jim" standing proudly in the backyard.

Santa, you're going to have to brush up on your Spanish, because I have a feeling that when Jenny gets finished bragging to all her Spanish-speaking friends about you, you are going to be in much demand on the island of Culebra next Christmas.

NOTE: The idea of a Christmas net was conceived by Tom Churchill, W1KCY in 1978, in order to bring Santa Claus to the homes of amateurs and their children who might not otherwise get to share in the popular Christmas tradition. Last year was the fifth year of operation and Tom reported that he had 16 volunteer amateurs to play host to Santa Claus. The net ran for five consecutive days, beginning 20 December, during the hours 2200 to 0200 GMT.

This past year the response was terrific, as well as the cooperation from other amateurs who allowed that frequency to stay clear. Tom counted an average of 20 contacts per hour, and some operators had as many as three children wanting to talk to Santa Cluas. Over 500 children were given this special opportunity, and we all look forward to hearing the Santa Claus net next Christmas. □

Santa in Valhalla

George Manning, K2RRR

On 21 December, the members of the Westchester Emergency Communications Association, Inc. enabled Santa to make his annual visit to the children at Blythedale Children's Hospital in Valhalla, in Westchester County, New York. The members of the association had contributed more than $650 for the purchase of toys and other gifts for the children. This was, in itself, a record contribution.

Santa was played by both Don Storm, K2MQR and George Manning, K2RRR. Santa's helpers were Bernie Berger, NY4Z; Willard Smith, K2CFX: Paul AC2T, Emily AC2V and Karen Maytan, WD2AHI; Rich Benda, WB2QJA; Rich Moseson, N2BFG; Paul Vydareny, WB2VUK: Nick Gallo, K2ZVI; and several others who were not Amateur Radio operators, but who helped distribute presents. These were Sharon Moseson, Susan Shedd, Joan Storm, Richard Duryea, and Leonard Caponegro.

Although the operation was on simplex, it was retransmitted via WB2ZII/R. □

Crisis ends in thanksgiving

Bill Talbott, W6IRY

This old expression took on new meaning for me when the power went out at our home about noon on 22 December. PG&E scheduled a return to service on the afternoon of 25 December because there were only five homes involved. After 24 hours, it began to look pretty grim. No heat. Food about to spoil in two refrigerators and a freezer. Elderly relatives visiting from back East. Twenty-five people expected for Chrismas dinner.

I told my sad story on WB5OQS and here is what happened within two hours.

- An amateur offered to bring his motor home from Morgan Hill so that I could use the auxiliary generator for power.
- An amateur loaned me a generator (there were none available to rent anywhere).
- Another amateur offered the use of his generator.
- An amateur who is an electrician came over and modified the main service so that the generator could be tied in.
- An amateur went out of his way to borrow a heavy-duty extension cord and deliver it to my house.
- Many, many other hams offered all kinds of assistance and encouragement.

The net result was that it was a joyous and pleasant Christmas at our house. It was that much more joyous as I reflected on how many super people there are who really care and are truly friends when a friend is needed. Many thanks to all who helped or who offered to help so generously.

—Santa Clara Valley Repeater Soc., CA □

Lincoln ARC — a busy club

Reynolds Davis, K0GND

On 12 December, the 14th Annual KLIN/Lincoln Amateur Radio Club/Salvation Army Toy-A-Thon was held. From 9:00 a.m. to 5:00 p.m., listeners to KLIN radio were asked to call the station with donations of new and used toys which would be distributed by the Salvation Army to needy families in the Lincoln area. Mobile units from the Lincoln Amateur

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Radio Club were then dispatched to pick up the toys.

This effort generated nearly 3,000 toys and games. Forty-nine operators and 22 non-amateurs participated in the toy-a-thon.

•

Fifteen members of the Lincoln Amateur Radio Club manned the phones at Nebraska Education television on 12 December to record pledges of support from viewers during NETV's December Pledge period. On-camera credit for the club and some excellent promotion for Amateur Radio were received.

•

Communications for the annual Elks Club Christmas Party were provided by eight members of the Lincoln Amateur Radio Club. The Elks Party annually welcomes over 5,000 area children to a Christmas Eve morning of clowns, treats and prizes. Coordinating the effort necessitates communication between the key decision makers of the Elks organization, and the club was asked to provide operators and handi-talkies for the event.

•

In cooperation with the Bethany Lions Club, the Lincoln Amateur Radio Club participated in the "Hunting Lions in the Air" contest, held 15 January. Although they operated only nine of the allowed 24 hours, the seven club members operating the station of KØGND were able to contact 52 other Lions organizations around the world. □

Hospital moves

Charles Stradley, N4AAA

It is not often that a hospital moves from one location to another, but on 14-15 December in Greenville, South Carolina, the emergency room, intensive care, coronary and pediatrics units were moved from the old General Hospital to the new $38 million addition to the Greenville Memorial Hospital. The moving of 125 patients was completed without a hitch. Fifteen of these patients were intensive care and seven were coronary care, requiring constant monitoring by doctors, nurses and respiratory specialists.

From noon Tuesday — when the move began, until 3:20 p.m. Wednesday — when the last patient was received at the Greenville Memorial Hospital, the entire process was monitored and coordinated with the assistance of the members of the Blue Ridge Radio Society. The members participating were Sue Chism, N4ENX; Ed Grooms, NE4G; Charles Mullinix, K4TOY; William Payne, KA4EVT; Charles Stradley, N4AAA. Other members on standby alert were Gene Owensby, WB4ZBZ; Randy Rice, WD4ADK; and William Rogers, KA4END.

A base station was maintained at the command post at each hospital, and members rode each bus or van transporting ambulatory or wheelchair patients, keeping constant check with the command post in case of any emergency.

The move was made so smoothly that one ambulance arrived at the new emergency facility with an accident victim in cardiac arrest an hour before the official opening, and the patient was handled promptly and efficiently. The patient is on the recovery list at this writing.

The hospital staff expressed appreciation for the services rendered by the members of the Blue Ridge Radio Society. □

Doctor, nurse, ham — life-saving trio

Brown Carpenter
Ford Reid

If it hadn't been for Jim Geisinger, K3QQN's efforts on Saturday, 13 November, Louis Nielson of New Hampshire might not be alive today. The Virginia Beach amateur was responsible for orchestrating the effort to save Nielson, who had suffered a heart attack on his private boat — the *Escapade* — 300 miles off Bermuda.

K3QQN, a 35-year-old Navy electronics technician, worked through the night to get assistance to Nielson and relayed messages from an emergency-room physician at Leigh Memorial Hospital to a nurse aboard the *Waccamaw* (a Navy oiler), who administered the treatment that may have saved Nielson's life.

The drama was heightened by 15-foot seas and a five-hour attempt by the Coast Guard and the oiler's crew to pinpoint the location of the ketch.

Geisinger first received word of Nielson's condition from an Amateur Radio operator in Honduras. Following Nielson's first SOS, hundreds of ham operators tuned into the drama and offered assistance. Several helped patch through messages as communications faltered at times.

By Saturday evening, Nielson's condition was reported as stabilized.

Information from ***The Virginia-Pilot, The Ledger-Star; submitted by Gay Milius Jr., W4UG and John Parrott, W4FRU*** □

Personal loss doesn't stop them

Mrs. Lloyd Mixen, XYL of WB9ZJZ

We all know the dedication of Paul AH6AD and Judie Nicolas, KA9FHX, but what happened the night of 2 December was above and beyond the call of duty.

A tornado hit New Baden causing severe damage to the southeastern corner of town, and injury and death. Paul and Judie lost their mobile home; they lost everything.

Victims themselves, they did not even think of their own loss. They stayed on the scene, helping with the rescue and directing radio traffic for over two hours. (They were the only radio traffic in and out of the area for the first hours) until other help could arrive. They then helped to transport injured to the hospital.

Were it not for Paul and Judie, the situation could have been much worse, and rescue operations would not have been able to organize as quickly as they did.

Paul and Judie, we would like to say how sorry we are at your losses, and a large pat on the back for your courageous and unselfish help to others.

— St. Clair ARC, Belleville, IL □

Communications aid given in walkathon

Richard Smith, WB4APG

The second annual Cerebral Palsy (C.P.) Walkathon was held on 13 November — a cool, crisp Saturday. Approximately 200 youngsters had solicited pledges to raise funds for the local C.P. unit. About $7,000 was raised during the 20 K walk.

Savannah area amateurs again furnished an Amateur Radio safety net as well as putting up route markers, working at checkpoints, and in a few of the cases, working as poop-out wagons.

The amateurs who took part were Don Collins, KA4BLS, communications chairman; Greg N4DBS; Bob Hume, WB4KOZ; Tom Langenfeld, KA4RKX; Gil Kearns Jr., W4NNB; Carl Williams, WA4IOP; Dave Wood, N4EMN; Sarah Smith, KA4MXJ; and Richard Smith, WB4APG.

All communications took place on the Savannah 146.10/70 repeater. The equipment performed well as the walkathon traffic shared repeater time with normal traffic. The local amateurs received thanks from the C.P. unit and used the event to showcase Amateur Radio in action. □

Hams find lost man

Phil Loveless, KC4UC

Lanierland Amateur Radio Club (Georgia) members recently participated in a lost man search. Hall County, Georgia Civil Defense Director — Bill Banks — requested that amateurs provide radios and manpower to help in the search. Amateurs were ordered to report to Hall County Sheriff — Richard Mecum — when they arrived at the nursing home.

The individual, a 71-year-old man who lives in a local nursing home, was reported missing on 19 November after he was missed at a 3:00 a.m. bedcheck. The call to amateur operators went out at 9:30 a.m. after the person was not located by searchers in the immediate vicinity of the nursing home.

Local amateurs begin to arrive on the scene at 10:00 a.m. and were directed to begin a house-to-house search in the area. At 10:50 a.m., the search was successfully concluded when amateur Bob McDonald and his assistant, Morris Dukes located the person. Dukes found the man in a storage shed at a church located about one mile from the nursing home.

Weather conditions were light rain and about 50 degrees.

Amateurs participating in the search were Bob McDonald, KD4GD; Paul Watkins, W4FDK; Howell Mendenhall, KB4KE; Art Borman. N4FBH; Phil Loveless, KC4UC; and Cliff Sheffield, WB4ZMH, who operated as net control. □

Couldn't happen here

Wilburn "Scottie" Scott, WA1YNZ

Many people feel that being prepared for any type of emergency here in Aroostook County (Maine) is not necessary as we don't have emergencies like other parts of the world.

Winter weather that cripples other areas of the country south of here we take in stride because we have the equipment and know-how to cope with it. In other words, we are prepared for severe winter weather.

Should we prepare for other types of emergencies? We never have tornadoes up here. I wonder what happened to several thousand acres of trees in the Allagash waterway? Maybe they just got tired and laid down. What about the mobile home and potato house in Perham that disintegrated a few years back? I don't think it was caused by termites. We don't have flash floods up here like other parts of the country, either. Tell people in Caribou and Washburn that the 7 inches of rain in a few hours and the water in the houses and mobile homes was not a flood.

We defintely do not have earthquakes. That must have been birds on my antennas shaking my house one recent Saturday morning. We do not have hurricanes, either. That one back in the '50s doesn't count.

With the excellent fire departments and State Forestry personnel, there is no chance of a major fire in the county. It is in other states where they have large forest fires and have to call for help. The fire that burned Bar Harbor in the '40s doesn't count.

It is nice living in an area where the only emergency situation that can happen is severe winter storms, and we are well prepared to cope with those. I feel that we should also be prepared to cope with other types of emergencies that happen in other areas. We might be visiting some other area when they have an emergency situation, and then we could be of some help.

Remember, one of the primary reasons for the existence of Amateur Radio is our ability to help public service agencies with communications during emergencies.

— Arooltook ARA, ME □

Blind amateur is active in emergencies

Kathie Opferman
Submitted by Dan Warco, NZ4M

A switch of the dial and Henry Porter, WA3TOB is in radio contact with people across the country and across the seas. He can touch base with airwave acquaintances without leaving the basement of his Canton Township (Pennsylvania) home.

Precision tuning of the half-dozen radios and related electronic equipment depends on Porter's keen sense of hearing and gadgets devised by friends to recognize broadcast frequencies. He has been blind for the last 37 years.

Blindness presents no handicap for Porter when he is at the controls of his beloved radios, an interest he shares with his wife, Anna WA3TNX, who is also blind.

The VHF scanner is the first on in the morning and the last off at night. Through it, Porter can keep tabs on police and emergency activity in the area, a crucial part of his efforts as a volunteer civil defense coordinator. Porter also acts as Emergency Management Coordinator for Canton.

Real-life emergency situations are nothing new to the Canton resident. Porter said he worked for three or four days "solid" during the Johnstown flood several years ago.

"The average person does not always realize the importance of civil defense communications during emergencies," Porter said. "The first concern is the safety of the victims, with their welfare second."

Porter takes his job of assisting in the coordination of area civil defense radio drills very seriously.

"These drills are meant to be taken seriously, just like it was an actual emergency," he said. "The last drill we had, I really chewed some of the people for fooling around instead of working."

— Observer-Reporter, Washington, PA □

Communications vital to preparedness

William Treml
Submitted by Michael Ettenhofer, WB8VDC

Military historians say hundreds of battles have been lost because of a breakdown in communications. Dan Harsh, a general of sorts, tries to make certain that doesn't happen to his armies.

The 31-year-old director of Washtenaw County's (Michigan) office of Civil Preparedness and Emergency Medical Services says communications is one of the highest priorities on his list of required facilities.

To fill that need, Harsh and his key volunteer aides rally a network of Amateur Radio operators when area-wide emergencies strike the county (like the snowstorms of last winter).

"They're vital to our operation," Harsh says of the amateurs. "We depend on them and they always come through."

There are three official designations used by the county's Snow Emergency Council for road conditions during a storm. They correspond to similar designations employed by the state's Department of Highways and Transportation in Lansing.

The least serious designation is "Snow Travel Advisory," which denotes area roads are snow and ice-covered, hazardous conditions exist and reduced speeds are advised.

The next level of warning is "Snow Condition Yellow," denoting road conditions have become extremely hazardous with blowing and drifting snow and some stalled vehicles impeding traffic. That condition also indicates the storm is expected to continue with roads becoming worse.

The most serious designation is "Snow Condition Red," which tells motorists that the storm is so severe that is has been impossible to maintain a lane of travel through most roads, that traffic is becoming stalled and that ultimately all area roads will be blocked. Under the "Red" condition, motorists are advised to stay out of the affected area until further notice.

"Which condition is declared, and when, is a decision made by all representatives of the Snow Emergency Council," Harsh explained. "It's a consensus, an agreement with all the officials representing the various agencies involved. That decision is made after current data is received and evaluated on road conditions, traffic and continuing snowfall. Every factor is considered before a 'condition' is announced."

Much of the data compiled and considered by Snow Council officials for a 'condition' announcement comes from the Amateur Radio operators who are constantly calling in reports to the Civil Preparedness office.

— The Ann Arbor News, MI □

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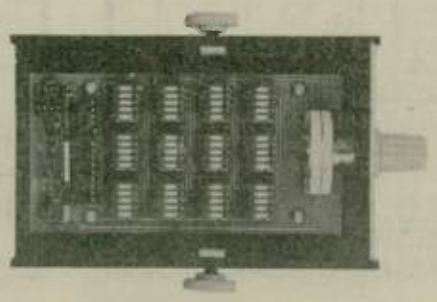

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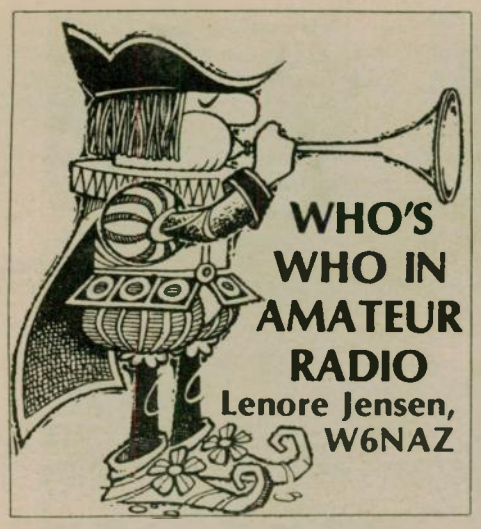


Here's another successful executive who credits Amateur Radio for leading him on the path to his life career. He's Bob Rod, K6FZ — Ph.D., engineer, inventor and avid ham.

Presently, Bob is vice president for Science, Monogram Industries of Santa Monica, California. He deals worldwide in engineering products and design.

Within the trade, his company is well known for the beloved device which brings the comfort of home to travelers everywhere — a recirculating flush toilet used on jet planes, buses, trains, recreation vehicles, boats, etc. "Even the familiar 'blue pagodas' you see set around at public outdoor events are ours. I get a lot of kidding about it," he says, But the importance of the development is serious business and a great advantage to all.

He's also involved with an upcoming revolution in solar cells which will certainly be important to us.

But going back, he was the typical child of depression days who became enchanted with radio after reading an article, "How to Build a One-Tube Short Wave Receiver."

Bob sold **Saturday Evening Posts** to earn enough money for a type 30 tube; the Quaker Oats carton for coils were from his mother's New York City apartment.

Discovering Amateur Radio in a copy of QST, he had his lucky break in discovering a real-live amateur in his same apartment house. (It was a D.C. one, by the way.) "Gene Black, W2LL (then W2ESO) became my good friend, was an extraordinarily good CW operator and helped me earn my first call, W2KVY, in 1938."

As a teenage operator, he was thrilled with his own station. "By the way," he remembers, "I developed a strong crush for a YL op in Panama City, Florida. We never met, but years later — in deciding on the location for a new plant — I selected her city because the memories were so pleasant!"

When Gene went away to Georgia Tech, Bob followed in his footsteps. In time he received a B.S. degree in electrical engineering.

A little earlier, a small ad had appeared in QST requesting upcoming EE grads to volunteer for the Signal Corps. A telegram answered his letter, offering a commission as a second lieutenant.

Bob was sent to England for a year to work with the British Army. During the dark wartime days of 1943, he studied radar at the Royal Military College of Science and worked in the field with radar-controlled searchlights and anti-aircraft equipment.

Our country recalled him for service in the South Pacific. For two years he was in the war-torn islands of Guadalcanal, New Guinea and others on the way to Manila. In addition to working as a radar navigator, "I did a lot of checking out of all

Bob Rod, K6FZ, Ph.D., engineer and inventor. (Plate holder reads "Be Kind to Animals, Kiss a Frog.") ***(Photo by Bob Jensen, W6VGQ)***

new airborne radar. I was even sent behind enemy lines to investigate a Japanese radar shack, to estimate frequency, etc."

(Was he scared? You bet!) "It turned out to be a small wooden house with antennas that rotated in a search for planes. It had something like a crude 5-meter rig with tubes and capacitors bearing labels saying RCA and Cornell-Dubilier and the like. It seems the Japanese had copied not only American parts, but put on labels with both languages!"

At war's end, he left as a captain with commendation.

(Back in Manhattan, his first QSO — we've discovered — was with this writer.)

Bob Rod spent a number of years with RCA, designing marine radar and Loran gear. Later, he designed microwave equipment for the Marine Corps and, with Bogue Electric, high-frequency power supplies for the military.

"By 1955," he recalls. "I had the urge to go into business for myself. With $500 I started Acoustica Associates and we turned out ultrasonic cleaning units. If you want a laugh, see my patent with the sketch of a man cleaning his feet in one — indicating a person having worked around nuclear equipment.

"We also came up with new methods of gauging rocket fuels. With only $200 in the bank, we landed a million dollar contract with the Air Force, to design the propellant utilization system for Atlas missiles. Because we were in competition with the biggest companies, we were very pleased to win out. We ended by providing $25 million worth of equipment for the whole E series of Atlas — and for Apollo, as well, and nuclear sub systems, too." In the case of Atlas, the Air Force was concerned "that the missile would run out of juice before it could reach an enemy target."

One of his dozen U.S. patents is involved with the level gauging of liquid fuel in rockets. "It's important to use two liquid propellants in a certain proportion, so you don't end up with too much of one and not enough of the other."

Another patent deals with acoustical control of solid rocket fuel motors, making the fuel burn faster or slower by changing the noise environment. (His Ph.D. was earned in 1977 from the University of Southern California, with a specialty of environmental engineering.)

Coming to California and joining Monogram Industries, Bob helped on the aforementioned "head" project. Now, solar cells are his current enthusiasm.

"This program is just coming to fruition," Bob explains. "This is our low-cost electroplated cadmium telluride solar cells project. They are going to be very viable competitors to silicon cells and probably will sell for a quarter of the cost. They're easier to make and much more durable." (He has still another fundamental patent — one concerning the electroplating of solar cells material on glass.)

"It may be six years before they are on the market. I've no doubt they will cause a revolution in the field. We expect ours to be on roofs everywhere, generating power during the day and feeding excess energy back to the utility, to be used at night.

"Amateurs will like them because we're shooting for a dollar-a-watt cost."

Bob and his wife, Shirley (a psychotherapist and marriage/family counselor), have recently moved into an apartment at Marina del Rey, by the ocean. "I'll be begging my neighbor, Larry Frank, WA6TCI to time-share his 4-element beam" he laughs.

However, his next ham project "is to install a complete remote station on a nearby mountaintop, free of TVI or RFI, and to control it via 450 MHz." There is little doubt he'll be able to do it.

Busy as he is, K6FZ is always anxious to use his stations for the benefit of others. As an Army MARS operator, Bob has run a great many patches for servicemen in Southeast Asia. He's an active member of the Los Angeles Police Department surveillance team of amateurs and has been asked to form a similar group for the sheriff's department in his area.

He's done considerable antenna design for amateurs, including the K6FZ square loop antenna (only 8 ft. square) for 10, 15 and 20 meters.

He travels frequently throughout the world for business to spots such as the USSR, Czechoslovakia, India, etc. Friends are everywhere, as he belongs to the prestigious Young Presidents Organization of 3,000 persons around the world who have become presidents of substantial companies before reaching age 40.

The Rods have a daughter, Patricia, who is an executive for a Hollywood trade paper, and their son is a popular rock musician, Dean Rod.

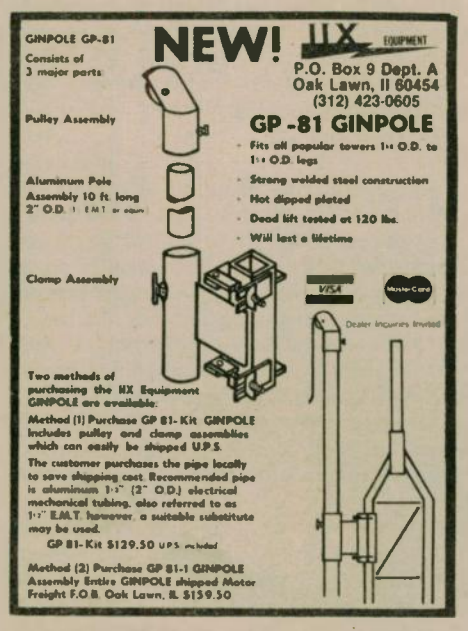
Reflecting on his rewarding career, Bob Rod is anxious to credit that first ham publication and his first ham friend, saying, "My whole life was established through Amateur Radio!" □

Mike adjustment

Terry Turchin, WA3DZZ informs us, "A number of people have bought the external mike for the very popular Kenwood TR-2500 walkie. This unit seems to be very nice with just one small problem." Attention is brought to the wiring. The unit has "heavy audio with too much low frequency punch.

"Here's a quick fix. Put between a 6.8K to 10K ohm ½ or ¼-watt resistor in *series* with the mike hot lead (audio +) in the mike. Also, put a .005mfd (voltage not critical), *across* the mike element to add some roll-off. I have tried between .033 to .06mfd and these have worked OK.

"This modification has been done to a number of units, all with good reports." — *Baltimore ARC, Reisterstown, MD* □



OFF THE AIR

Keep the code test

The letter by Dan Schechter, AK0S in the January 1983 issue regarding code was by far the best I have read on the subject, and I concur with his thoughts and ideas 100 percent. If prospective amateurs cannot self-discipline themselves enough to pass the code test, they will very likely prove to be undisciplined when they get on the air — to the detriment of the entire ham community.

It seems to me that there should be pride in learning something new. Code is not all that tough. If one applies the seat of the pants to the seat of the chair and does a little concentrating, the job can be done. A good way to build up speed is to plac · a small cassette player in the car, and when commuting or driving someplace, listen to one of the many code tapes that can be purchased. This is a way to increase code speed while performing a necessary task (i.e., driving the car). Of course, it isn't wise to use earphones for fear of blocking out necessary sounds, but once the code is learned, many thoroughly enjoy it from time to time.

So, let's not let the floodgates open to everyone who can come up with enough dollars to purchase the equipment. Let's continue to operate in a professional manner. Some publishers of Amateur Radio material, being self-seeking, would like to see a population explosion in the amateur ranks so they can reap a sales harvest.

The Amateur Radio ranks are filled with folks who have *earned* their tickets and most of them practice the kind of discipline and courtesy that makes Amateur Radio the greatest hobby in the world. Continuing the code exam requirement will help keep it that way.

CARL NELSON, NJ6K
Whittier, California □

Don't blame U.S.

I am writing in reaction to the diatribe of Donald Simon, NI6A ("Against third-party traffic regulations") which appeared in 'Off the Air,' **Worldradio**, January 1983. Perhaps being an American ham living/working overseas allows me to see his comments in a different perspective.

Reference to Clinton De Soto's excellent history of Amateur Radio, *200 Meters and Down*, tells us that the prohibition of international third-party traffic originated with the Madrid Treaty which was signed December 1932 and ratified by the U.S. Senate on 1 May 1934. Unrestricted third-party traffic only existed for some 10 years at most, following the first two-way transoceanic contacts in 1923 and ratification of the Madrid Treaty.

The wording of Section 97.114 (third-party traffic), Sub-part E, Part 97 of the U.S. Communication Act of 1934 to this day is virtually identical to the Madrid Treaty. There Simon will note that U.S. amateurs may exchange third-party traffic with amateurs in any "countries which have assented thereto." Therefore, blaming the FCC and our free enterprise communications sector is shooting at the wrong target; it is the foreign countries which prohibit this traffic — *not* the United States!

Simon should realize that the United States is virtually the only country on this earth where the communications sector — e.g., telephone, telegraph, television and radio (major stations) — are not government mononolies. The foreign governments can therefore control what is said over the air wave, and they usually do exercise this control to some degree. Therefore, international third-party traffic from these countries not only loses (foreign exchange) revenue, but also breaks the control over what *might* be said over the radio.

Witness also the recent action in the United Nations, recommending that all countries should have the right to censor incoming satellite TV signals, which further shows the control which most foreign countries want to exert over RF communications.

Being a Section Traffic Manager, Simon might be interested in the power which government-monopolized communications can exert. Last year there was a national athletic competition held here in Jakarta with participants from all provinces of the country attending. The local IARU body — ORARI — thought this was a natural opportunity for Amateur Radio to relay results, personal news, etc. to stations in each province. However, RRI (Radio Republic Indonesia) claimed priortiy in transmission of *all* news, and the ORARI plans quickly died. In effect, then, even national third-party traffic is prohibited in this country.

Simon laments that "in the old days there were no regulations on third-party traffic to foreign countries (except during wartime or with certain 'unfriendly countries')." During both World War I and World War II, all stations were dismantled by law; therefore, there was not any first-party traffic in those periods. The same is true with "unfriendly countries" whereby no exchange of transmissions was permitted, let alone traffic.

Yes, Simon, it would be nice (and cheap) to talk to your brother-in-law in Scotland, just as I would enjoy talking via Amateur Radio to my son in Florida and my dad in Pittsburgh. But Scotland won't permit it, and Indonesia won't permit it, so you and I must acknowledge that fact. But, sir, it is not "our government" by any means which prohibits such practices. Americans should realize that we have forgotten more freedoms than the majority of this earth's population will ever enjoy.

JOHN SPROAT JR.,
YB0ACL/W4LCL
Jakarta, INDONESIA □

Rotor control for the blind

While reading through your November '82 HANDI-HAM section of the newspaper, I noticed a very primitive rotator control unit for the visually handicapped.

We have a special rotor control in braille for this purpose. It provides excellent control for determining antenna position and has automatic delay after the antenna has stopped and an audible tone while the antenna is turning.

The control can be bought separately and will work with HAM M series 3 through 6 and HAM II, III, IV and T2X. The only change in the rotator is that the 500 ohm pot has to be changed to a 1000 ohm pot. In other words, the unit will work with thousands of older rotators manufactured by CDE and Hy-Gain.

There is no additional charge for the more complicated unit.

ALAN CAPLAN, W0RIC
Sales Manager, TELEX
Minneapolis, Minnesota □

Eyeball QSO with Antarctica contact

Yesterday (5 December) was the happiest day of my life in regards to Antarctica radio contacts. This is what happened.

So far this year, I have completed 128 patches for our friends down in the Antarctic. Before I had a nightly sked with KC4USB (Byrd Surface Camp), I ran a lot of patches for the ships at sea; some were in the Atlantic, the Pacific, the Mediterranean, the Red Sea or the Indian Ocean.

In all the phone patches I have run for the Antarctic, I never even dreamed that I would be so lucky as to meet someone I had run patches for, but yesterday was my lucky day.

On 18 November, I received a letter from Ens. Ed Howze who was stationed at the Naval Sub Base in Groton, Connecticut. In his letter he said, "You do not know me personally, but last winter when I was the Navy Corpsman stationed at the Byrd Surface Camp in the Antarctic, you ran several phone patches for me to my wife Amelda in California. I just wanted to say many thanks for all your help and thanks from Amelda too."

I answered his letter and asked for his telephone number. A few days later I received the information; I then phoned him and invited him to come up for dinner and supper and to stay over so he could talk at 0300 GMT with some of his buddies back at Byrd, as I have a regular nightly sked with KC4USB.

I know a lot about the Antarctic, but Ed really told me an awful lot of things that I didn't know. There is no question in my mind that it was a day I will never forget. Ed is leaving the sub base 17 December and after Christmas he will go to Italy for two years.

Charlie Stevens, W1HWG (right) stands next to Ens. Ed Howze, formerly stationed at the Byrd Surface Camp in the Antarctic.

My call now is W1HWG, and what they stand for I think is appropriate. I am 74 years old and work every day at my Hardware & Plumbing supply store, except Monday. W 1 HARD WORKING GUY. My first call was 1BMG — no prefix in 1926.

CHARLIE STEVENS, W1HWG
Stafford Springs, Connecticut □

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Check your license expiration date.

He supports W6EUF's view

It is difficult to comprehend the thinking of some of the ostriches who wrote in scolding Wayne Gingerich for his opinion of the BY operation. Wayne never suggested withholding our good will from anybody on the air, yet runaway imaginations and considerable parroting of our current national policy toward Red China has been allowed to cloud the issue.

With all their hoopla about BY getting on the air, these amateurs seem to forget why BY hasn't been on the air for the last 20 years. The unexplained shift in our national policy doesn't change the fact that the communists are responsible for the murder of 26 million Chinese — a genocide unequalled in history. By comparison, the Nazis were pikers.

How can our helping finance another Red propaganda victory over the free world be construed as any kind of good will toward the unfortunate people they dominate?

In fact, our current policy of propping up floundering communist economies during their cancerous spread across the globe has had just the opposite effect that these bleeding heart peddlers of good will would want. All our good will hasn't really improved the plight of people in communist bloc nations one measure. Instead, it has only helped to insure the continued denial of basic human rights that our conflicting national policy claims to be so concerned about.

None of those who wrote in disagreement of Wayne mentioned the 26 million Chinese — many of them would-be BYs — we'll never get to try out our so-called good will on.

Are we so obsessed with "detente" and good will and real or imagined threat of bigotry toward communists and our own various "visions" for Amateur Radio that we have lost an even greater vision for our fellow man? I want to see BYs on the air and to share good will with them, but not if it means a moral or propaganda gain for the Red butchers who *STILL* dominate their lives.

PAUL MORATTO, KC5JK
North Hollywood, California □

Our eyeball QSO

This is about a friend and I who met for the first time in person at the ARRL convention in Santa Cruz, California. This convention was held 8-10 October 1982. We talked on the air many times before. We usually set up contact dates for two times a week. We met on the air about three months before the convention.

Our first contact was on a Saturday in August 1982. It was a hot day and a good day to stay in on the radio. I was tuning around the 40-meter band and called CQ once or twice. Then came back a weak station. He called me several times over and over again. I quickly grabbed the logbook and put his name and call in it. It read, Richard Ghilotti, N6ELA from Modesto, California. Well, it turned out that we had a two-hour QSO, even though band conditions were bad. Ever since that day, I met a very special person on the ham bands. We were scheduled to meet again the next week. About a month after our first contact, we planned to take a trip to Santa Cruz and meet at a bus station.

From my home QTH in Pomona, California (about 400 miles south of Santa Cruz), I had to take a plane to the San Jose airport. Richard took a bus from Modesto to Santa Cruz, which is about 90 miles, one way.

We finally met at a bus station in Santa Cruz. It was a moment of rejoicement for both of us. We shook hands and laughed and talked all the way to the hotel where we would be staying at. When we got to the hotel, we checked in and registered with many other hams. There were many things to do at the convention and met many wonderful people. But most of all, I met my ham friend in person for the first time. That was the most exciting thing I had done in years.

At the convention, there was a swapmeet, exhibits, banquets and many interesting talks. Those of you who were not there at the convention really were missing a lot. But as time flew by, more and more hams started to leave. There were people all over the country there. They had to get back home, I guess. My time came also. I had to catch a bus early Sunday morning, 10 October, to the airport. So Richard and I had to say goodbye at the bus station. But we knew we would see each other again soon. At the bus station I left him with a tear in my eye, and I knew we would soon be 400 miles apart again.

The next week, we met on 40 meters and talked about how great the convention was. We were already making plans for next year's convention. Until then, 73's from N6DTD.

STEVE MOCK, N6DTD
Pomona, California

(Steve's picture was on page 4 of Worldradio's December issue.) □

Early experience sticks with him

In 1921, a mere 11 years old, I was shipped off from Muskegon, Michigan to a New Hampshire boys' camp. I never did tell the hams there, ±1934 when we started the now precious club, about this tale of my earliest innoculation with radio, in the East. I tell *you.*

Five Junior Camp cabins were along the shore of Baker Pond. My counselor was an Oberlin student and a ham. We kids aided in putting up a tall, green-cut pole at each end of the cabin-row. Mac — Malcolm Jameson — had some marvelous wireless stuff in an old crate on the wall over his bed. It was a loose-coupler with taps on the inside, sliding coil and a real slider on the outer one. He even had a cased variable condenser (and don't anyone dare question that word; we had no other, then). A glorious light source was his 201A, fed by a storage battery and a 22.5V B-block. He even had two pairs of phones. The five-wire cum spreaders flat-top antenna between the poles came down to a huge lightning-switch outside the cabin, and a good thing it was there, grounding, the day a summer storm sent a bolt into the skywire with no great damage. (We *were* scared!)

Every morning, Mac copied old NAA for the news to ships at sea. This he read at breakfast in the Senior/Junior mess hall, long before papers arrived at nearby Wentworth, from Boston, by B&M RR. We were most modern, indeed. None of us boys got to reading the code, but it was exciting to listen on the other pair of phones, split so two could lend ears simultaneously. (Was it CW or spark? I don't know.)

Then came the first sports broadcast of which I know. It was the 1921 Dempsey-Carpentier heavyweight boxing match (Madison Square Garden, I guess). Old NAA put it out for the lads at sea, with ringside ops pounding their keys alongside the American Morse press ops. Imagine reporting a fast fight by CW! As fast as Mac filled sheets of paper, he tossed them to us and kept glued to NAA. Although squirts of 10 to 13 had little interest in boxing, the way it came by radio was fascinating to all, so we read and read as copy came. So I can reminisce and hold that I heard "sport" by radio in 1921.

Mac didn't entice me to hamdom, but at W1YB, Dartmouth College, I joined the crew, and in 1932 took the 10 wpm and simple exam in Boston, during Cruft Lab grad studies, becoming W1EPL. I was W8HPF home in Muskegon and, since 1936, W9YLD. Thus, I am a 50-year licensee and League member with pen and plaque to show.

TEMP NIETER, W9YLD
Evanston, Illinois □

Fascinating visit to Holland

In late October, my wife and I returned from another trip to Europe, which we have been doing every three years. We both come from Holland, and although all my relatives there have now passed on, my wife still has a large family there. However, her mother — now 85 — is in excellent condition for her age and lives in a beautiful home in Montreux, Switzerland. So for the first 10 days in Europe, in September, I went along to Montreux and had another opportunity to visit the International Telecommunications Union (ITU) in Geneva, and of course, 4U1ITU.

There is now a set of rules for licensed, visiting amateurs from anywhere to visit the station and use its facilities. It is no longer a haphazard situation in which the visiting amateur must take potluck, if he can get hold of some responsible person at the ITU to make arrangements for a visit. This was the case under the former manager — Gerard de Buren, HB9AW — who was generally more interested in fine dinner parties with visitors than the orderly operation of 4U1ITU!

The present manager of the station is Francisco (Paco) Lafuente, EA2ADO, who is also the radio engineer representing the Spanish government at the ITU. He introduced me to the new method and procedure for getting into the station. I spent five and a half hours at the station on 10 September, and as always in the past, had a fine time there. Unfortunately conditions were not the best that day, and only a few QSOs with the West Coast of the USA were possible.

While my wife stayed with her mother the full six weeks we were in Europe, I returned to Holland on 13 September, via Luxembourg, where I spent another three days with my old friends Michel Lauth, LX1ML and Heribert Cloos, LX2HC. Many W6 QSOs were made from there, including SSB with Philip Frazier, K6ZM, and Jan O'Brien, K6HHD.

The remaining four weeks I spent in Holland, and managed to visit 18 different PA stations, spending one to two days at each! Along the way I met at least 100 PA amateurs, as old friends in each area set up parties on my behalf. I was in each of the 11 provinces, in my rented Opel Kadette! I also drove down to Antwerp, to visit old friends there for two days.

It was a hectic four weeks for me, and of course quite tiring, but everyone was so kind to me and the food so excellent, that I would not have missed the experience of those four weeks for anything! While I had licenses in LX and PA, conditions were very poor most of the time, especially while I was in Holland.

Highlights of the visit in Holland were the following:

1) A guided tour of the brand new shortwave broadcasting facilities being built on the southeast polder (e.g., reclaimed land from the former Zuider Sea) where 4,500kW transmitters will be installed by mid-1983.

2) My visit at PAØZX, in the beautiful city of Groningen. Dr. H. de Waard and his charming XYL, Paula, who really laid out the red carpet for me and organized a fantastic party, attended by many PA amateurs I'd worked over the years, but hadn't met in person.

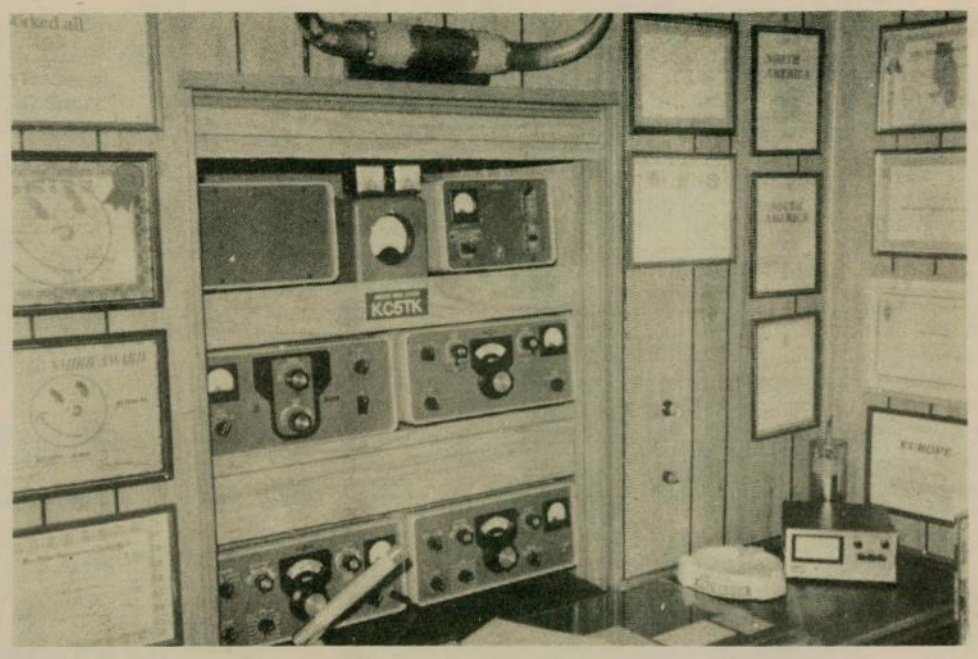
Henk is head of the Nuclear Physics Department at the University of Groningen, and he gave me a tour of his very modern, well-equipped laboratories. I was most impressed because I spent my 30 years, before my retirement in December 1980, at the Lawrence Livermore Laboratory, of the University of California, in Livermore, California. So I knew very well what a modern physics laboratory looked like!

One couple I met are both amateurs — Henk Tobbe, PAØADC and his very charming XYL, Agnes PA3ADR, in Hoogeveen. Unfortunately, I could only spend a few hours with them, enroute to another scheduled visit. Agnes is very active in international YL affairs, and is in fact an officer in such an organization. She attended (actually they both did — see page 61, September '82 QST) the YLRL Convention in Washington, D.C. in June 1982.

They have a very well-equipped station at home, complete with computer control. (Many Dutch amateurs are buying home computers these days!)

JIM RUYS, N6ZX/7
Anacortes, Washington □

STATION APPEARANCE



The winner of our Station Appearance for March is D.E. "Don" Abell, KC5TK of San Antonio, Texas. He's been licensed since 1960 and is active in quite a few clubs. He's a member of the ARRL (American Radio Relay League), San Antonio Radio Club, San Antonio Repeater Organization, ARES (Amateur Radio Emergency Service), San Antonio and Bexar County Civil Defense, Six-Meter International Radio Klub and Army MARS (AAR6YF). He's also served as Emergency Communications Officer for the city of Castle Hills, Texas.

His main interests in Amateur Radio are ragchewing, 6-meter DX (he has 36 countries and all states confirmed), emergency communications and sponsoring new amateurs.

Don's equipment on the *top shelf* of his console (left to right) consists of: 516F2 power supply; bird wattmeter and Swan SWR 1-A; 12 B4 station control; *Middle shelf:* 30L1 linear; 62S1 6 and 2-meter SSB transverter; *Bottom:* 32S1 transmitter; SM-3 dynamic mike; 75S1 receiver. (Unless otherwise noted, all equipment is Collins.)

The knobs in the wall to the right of gear control switching. Ham IV control box in corner.

Antennas used are a TH-4 (55-foot); stacked 5-element 6-meter Yagis (60 and 75-foot); 11-element 2-meter Yagi (67½-foot; 40-meter inverted Vee; tower-mounted AFM 4-D and isopole.

The shack occupies one-third of a 10-by-24-foot extension built onto the garage. The other two-thirds is a workroom. The equipment is accessible through the workroom wall for servicing.

All line voltage (110-220) runs through individual breakers. All equipment is strap-grounded to a 12-foot ground rod through the slab. Shack and workroom have own heat and air conditioning. Emergency power for the shack and house is available from a two-cylinder electric start 5.5kW standby generator in the garage.

Don will be enjoying a free year's extension of his subscription. □

See you in *Worldradio*

If you participated in or know of an interesting event involving Amateur Radio, send in the story to Worldradio. Pictures are especially welcome and will be returned. *Worldradio, 2120-28th St., Sacramento, CA 95818.* □

American Radio Relay League

J.A. "Doc" Gmelin, W6ZRJ
Past Director, Pacific Division
ARRL Honorary Vice-President

In the editorial column "It Seems to Us . . ." in the December 1982 issue of QST, Steve Place, WB1EYI neatly lays out the ideals and realities of the League's proposal for use of volunteers to prepare and administer Amateur Radio license examinations.

The use of such volunteers is now legal under the recently passed Public Law 97-259, which was signed by President Reagan this fall. Use of volunteer examiners for Amateur Radio is not new, of course, since the Novice exam is currently given this way. Originally, the Novice license was only administered at FCC field offices, as were all other exams except Conditional licenses.

In the early 1950's, the Conditional Class test was given by amateur volunteers in instances where amateur license applicants lived more than some specific distance from an FCC testing point. At the time, it was 125 miles.

Any location where the FCC gave tests at announced times, even if only once per year, was considered a testing point. This, of course, did make it difficult for many people to take an FCC test in a reasonable length of time, unless they were willing to travel to a testing point many miles farther away — one that gave tests weekly.

Of course, even if the Conditional test administrator did not cheat, there was less pressure than when one went to an FCC field office for the test, and for this reason, many people wanted to go for the Conditional instead of the General Class license.

It should be pointed out here that at the time, one could only take the level of a General Class when taking the Conditional license test.

There were Advanced Class amateurs at the time, but these were individuals who had originally held Class A licenses, and the Advanced test was no longer available. The only license higher at the time was the Extra Class.

There was little reason to advance because General, Advanced and Extra all had the same operating privileges. So, until the Novice — and later the Technician — license was made available by volunteer examiners, the Conditional was the only test given by volunteers.

Was there cheating in that testing program? Yes, in several ways.

For one, some individuals "moved" to an address that was beyond the test distance; that is, they used the address of someone who lived over 125 miles away from a testing point and took the test there. Then they would operate portable for the limits of portable operation and move back to that location for a day, and then work for the portable time limit again, and so forth. In fact, sometimes this move back was only on paper.

Did these individuals really pass the test, and in particular, the code test?

Some probably did not, and that was the second weakness of the volunteer system. You might be able to get a "buddy" who let you cheat on the written exam and perhaps certify that you had passed the code test when you had not. In some cases, where there might not be such obvious cheating, there might be "hints" given on the written test. On the code test, one might let an individual slip by who did not quite have the 13 wpm for the test — either sending or receiving, or both. In an FCC field office, that individual would have surely failed.

A third problem that cropped up in some areas of the country was the outright sale of Conditional Class licenses for, say, $100. There were reports, from time to time, of individuals who made good money from such a "business."

In the 1960's, when the question of "incentive licensing" came up, some of the loudest cries against the new license structure and change in operating privileges came from amateurs who held Conditional Class licenses.

In the early 1970's, the FCC started a program of calling in certain Conditional Class license holders who now lived within the prescribed area, in effect, to see if they really could pass the test. The result? Many Conditional licensees simply turned in their licenses and gave up Amateur Radio.

Over the years, the FCC officials found more and more cases of cheating in the volunteer administration of not only the Conditional Class license but also the Novice and Technician licenses, which could only be obtained from volunteer examiners.

So the FCC stopped all Technician testing by volunteers and made the Conditional Class available only in real and provable hardship cases, which made it impossible for the applicant to come to a testing point. Of course, this made it much harder for many people to take FCC Amateur Radio tests and obtain licenses. Then in the late 1970's and early '80s, federal budget cuts began to eliminate many testing points, which made it even harder to take the amateur tests.

The League's proposal (RM-4229) to establish a volunteer testing program for Amateur Radio licenses will help by making tests more frequent and convenient.

Will such a testing program bring back the abuses of the past volunteer testing programs?

Well, WB1EYI's article in "It Seems to Us . . ." shows that the League is well aware of problems that might develop if the program is not very carefully set up to assure test security.

It is the League's position — and, I venture, also the position of most amateurs — that there must be validity and reliability in the tests; standards must be uniform and objective, and the tests must be open to anyone who is a valid candidate.

In the article, the League lays out a nine-point program for testing which is called "the practical" program that should most closely fit the ideal. Included is an outline for the type of tests, and provision for changing the test to assure that there is less chance for someone to acquire a test that will be used later.

The petition also proposes that tests be given by teams of three examiners in open, well-publicized sessions, in an attempt to avoid repetition of past abuses.

The proposal as outlined in the article in QST goes on to give details for administering tests. The article is well worth reading.

Will this new testing procedure work? Only time will tell (that is, if the proposal is adopted by FCC).

Let's hope some volunteer testing procedure works; it sure would be good for the future of Amateur Radio. □

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DX WORLD

John F.W. Minke III, N6JM
6230 Rio Bonito Drive Carmichael, CA 95608

Activities Calendar

19-20 February	ARRL International DX Contest (CW)
19-20 February	YL ISSB QSO Party (SSB)
26-27 February	French Contest (SSB)
26-27 February	CQ 160-Meter Contest (SSB)
26-27 February	RSGB 7.0 MHz Contest (CW)
05-06 March	ARRL International DX Contest (SSB)
12-13 March	YL ISSB QSO Party (CW)
26-27 March	CQ World Wide WPX Contest

Refer to the latest issue of CQ Magazine or QST for details concerning the above contest activities.

W-100-N

No applications for Worldradio Worked 100 Nations Award, except for one that had to be rejected. What was received was a duplicate copy of an application for DXCC. Please be aware that the W-100-N requirements are nations, not DXCC countries such as Wake Island, Kure Island, Navassa Island, etc. Obviously, this applicant was completely unfamiliar with the rules or didn't bother to read them. No QSL cards were included, nor was the $7.50 fee included. The applicant claimed to be a long-time subscriber of Worldradio. I might add that most of the other successful applicants have also been long-time subscribers and included a fee.

To keep up with the times, I am going to waive the requirement of submitting the QSL cards. You must have the cards in your possession and have the list of your contacts certified by at least two licensed radio amateurs. If you do not send the cards, the fee is $5. (What you will save is the charge to ship your cards to Worldradio.) Send your certified list to my home address and make out your check to Worldradio, not N6JM.

Heard Island!

After 14 months of planning, fund raising, and the usual run of problems associated with an expedition of such magnitude, it was with great jubilation that the maxi-yacht *Anaconda II* left Fremantle, Western Australia at 0234 UTC on Friday, 31 December 1982.

This is the VK0HI Heard Island Expedition that has been the subject of so much talk. It was initiated by the VK6 DX Chasers Club with support of the WIA (Wireless Institute of Australia) and the International and Northern California DX Foundations.

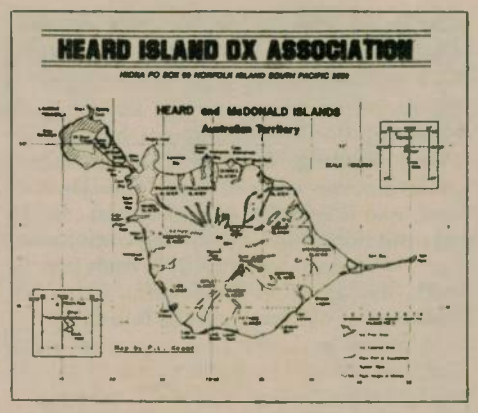
The team landed on Heard Island after almost three weeks of travel for an extended stay of approximately six weeks. The call VK0HI is being used on SSB and is operated by VK3DHF, while Fred Fischer, K8CW is handling the CW contacts for the deserving brass pounders, using the call VK0CW. As was expected, the pileups were humongous.

The HIDXA team led by Jim Smith, VK9NS departed from Hobart, Tasmania on 4 January 1983 on the *Cheynes II*. When they were two days out of Hobart, the ship's navigational equipment developed malfunctions and they had to return for repairs, a loss of five days. Then on the 14th of January, they were forced to detour to Albany, Western Australia due to poor engine performance which was traced to water in the fuel. Included with this group is Jim and Kirsti Smith, VK9NS and VK9NL; Bob Walsh, WA8MOA; Walter Marshall, W7SE; Walter Flor, OE1LO; and Sjoerd Jongens, VK7ZSJ.

The group landed on 1 February and was on the air 3 February, using the calls VK0JS, VK0NL and VK0SJ. Their operation lasted two weeks.

Prior to the DXpedition, Jim Smith — of the Heard Island DX Association — prepared a booklet concerning the island, which contained a wealth of facts. The island was first sighted in 1833 by a Peter Kemp, rediscovered in 1849 by a Thomas Long, and again in 1853 by Captain Heard — an American. As the first two sightings were not published, the island was named after Captain Heard. Wholesale slaughter of seals for seal oil commenced in 1858 and continued up to 1874, by which time the seals had been virtually exterminated. In 1880, Heard Island was abandoned.

Through the years, various expeditions



have been made to the area with the first Amateur Radio activity from Heard Island in 1947 by Alan Campbell Drury, who spent 15 months on the island. The call used was VK3ACD.

In 1966, Don Miller, W9WNV operated from there using the call VK2ADY/VK0. An expedition by Bill Rohrer, W7ZFY and Henry Roesing, WB4HWP was made in 1969, on which they used the call VK0WR to make about 3,000 contacts. A relief party brought Hugh WA6EAM, who used the call VK0HM.

The call VK0HM appeared again in 1971, used by Gerard Jacot, F2JD of the joint Australian/French expedition. In 1980, Bob McManamon operated from there using the call VK0RM, but due to equipment problems, only made a few contacts.

Here is a photo of some of those French Polynesians that was taken last July. From left to right: (standing) Roland Santallo, FO8EI; Stanislaw Wisniewski, FO8IW; Wilber Trafton, FO8GW; Richard Tsikeon, FO8HL; SWL William; and Georges Ancri, FO8GX. (Sitting) Christian Chefnay, FO8GM; Yves Shan, FO8DP and Jean A. Parker, FO8DF. *(Photo courtesy of Ross Forbes, FO0FB)*

Yasme DXpedition to Abu Ail

Lloyd and Iris Colvin, W6KG and W6QL, write from Djibouti early in December at the conclusion of another one of the many many countries they have operated from.

"The Yasme DXpedition of G5ACI/AA to Abu Ail is now history.

"Everything went pretty much as planned. There were four operators: Lloyd Colvin, W6KG; Iris Colvin, W6QL; Christian Dumont, F0ECV; and Jean Michel Gabouriaud, F6GBQ. We had three transceivers, one amplifier, two generators, one triband beam, verticals and doublets, plus all of our food, beds, gasoline, etc. We had very rough seas on the trip from Djibouti to Abu Ail, but the return trip was smooth. The loading, landing and unloading of our small dinghy from the main ship — the *Fanhous* — was difficult and dangerous, but was made successfully.

"Carrying all of our equipment almost straight up a very steep and high mountain to the lighthouse at the top was a difficult and tiring job. We first got on the air four hours after landing and operated continuously, using two stations simultaneously, for 41 hours. We made 4,000 QSOs with hams in 104 different countries and operated on five bands, including the new 10 MHz band.

"We gave a lot of hams their first contact with Abu Ail. It was not, however, the kind of operation to be done every weekend. We all came back very tired and worn out, but also very happy.

"Abu Ail is an international island in the Red Sea. It is listed as a separate country on the ARRL countries list. On a clear day, Ethiopia can be seen to the west and North Yemen to the east.

"We hope that everyone who needed us for a new country made it."

QSL cards for this one go to Yasme, P.O. Box 2025, Castro Valley, CA 94546. Be sure to include your SASE.

Abu Ail is one of two islands located in the Red Sea at 14°05'N, 42°49'E and 15°33'N, 41°50'E respectively. Jabal al Tair is the second island with them 115 miles apart. Both are desolate rocks; Abu Ail is 300 feet high and Jabal al Tair is 780 feet high. Lighthouses were constructed on both islands early this century, when they were part of the Ottoman Empire.

At the end of World War I, they were briefly occupied by the British Navy. The various peace treaties at the end of the war did not assign the islands to any country, and they have remained unadministered since. The lighthouses are staffed and maintained by a company sponsored by the United Kingdom Department of Trade, known as The Red Sea Lights Company, Ltd. An international treaty dealing with the Red Sea navigation assigned the responsibility to the United Kingdom. Costs of operation are shared by all of the signatories. The first amateur operation from there was ET3ZU/A in May 1971.

Thanks to the *DX News Sheet* for the above bit of information.

Guantanamo Bay (KG4)

Dick KG4CD is active from Guantanamo Bay, Cuba, and expects to be there for about a year. He has been working Europeans near 21.286 MHz from 1700 UTC. Dick also promises to operate from the lower bands to give out Guantanamo to the deserving. Not much has been heard from this country, and when a KG4 comes on, it could often be confused with a stateside prefix.

Marshall Islands (KX6)

Look for James Meldoy, KX6JM near 21.300 MHz from 2400 UTC if you need this one. Also check the YL Open House on 14.332 MHz around 1200 UTC, as he occasionally reports into the system. KX6JM handles his own QSL cards via Box 673, APO San Francisco, CA 96555.

Antarctica

If you worked DP0LEX, you worked another Antarctic station. This station is operated by Josef Kipfstuhl, DK6RK at Atka Bay, who will be there until May 1983.

The VP8ADE 10-meter beacon will be replaced by a new one donated by Pye Telecommunications and shipped to the Antarctic by the British Antarctic Survey on the *RRS Bransfield*. It should be in operation some time this spring.

Enrique Reckze, LU2DV and Luis Brancaccio, LU9EBS were scheduled to activate several of the Argentine Antarctic islands and LU1ZR on Dundee Island with LU1ZB on Observatorio Island.

Deception Island in the South Shetland Islands was represented by LU1ZC. The LU1ZA operation scheduled for early February was to be from Laurie Island in the South Orkney Islands.

All QSL cards for these LU1Z calls go via SARA, LU2CN, Malabia 3029, 1425 Buenos Aires, ARGENTINA. If you work at least three of these Antarctic area stations (any Argentine amateur stations with a LU( )Z call), send your log transcripts to Radio Club Argentino, C.C. 97, 1000 Buenos Aires, ARGENTINA. Include a fee of 10 IRCs.

Viet-Nam (XV8)

Last summer, Ian G4LJF and Henry Lewis, G3GIQ were warmly received at the Viet-Namese Embassy in London when they submitted an application for an Amateur Radio license. The *DX News Sheet* reports that Ian, a pilot with British Airways, later visited Nairobi and had a meeting with the Viet-Namese delegation attending the ITU Plenipotentiary Assembly there. Unfortunately, the Viet-Namese government is not prepared to issue licenses at present, but Ian and Henry remain hopeful about longer-term prospects.

Phillippines (DU)

Rick Todd, N8CWX writes that he will be in the Philippines for three years with the United States Air Force. He is waiting on licensing and hopes to be active soon in the spring contest season. Rick says to send QSL cards via Timothy Fiebig, N2BCF.

Presently on in the Philippines is Klaus Ziller, DK9VC/4D1; he will be there through March of this year. He plans 40 and 80-meter operation.

Two other reciprocal-type calls have been reported. Patrick McKeeby, N0ZO/DU2 has been reported on 7.001 MHz around 1200 UTC working into the Midwest and on 21.026 MHz from 2400 UTC. Look for Dale Law, N7ET/DU6 who has been worked on 21.023 MHz around 2200 UTC.

You might find a native DU type signing DU9RG who has been worked on 75 meters SSB on 3.795 MHz working the Midwest around 1200 UTC. See the December issue of **Worldradio** for a picture of this station, operated by Robin U. Go.

Antigua (V2A)

Grady O'Kain Jr., KR4C reports that he plans to be in Antigua for 10 days during March, including activity in the ARRL International DX Contest. Grady didn't say what his call would be. Previously, he had spent 10 days on the island of St. Lucia, where over 8,000 contacts were made.

Netherlands Antilles (PJ)

Mike Manafo, K3UOC/YV4 is undertaking a rather ambitious trip this Easter holiday to the Netherlands Antilles. Mike has provided the following schedule: 26-28 March — K3UOC/PJ3 from Saba; 29-31 March — K3UOC/PJ8 from St. Eustatius; 1-3 April — K3UOC/PJ7 from Sint Maarten.

Operation is planned on all bands, 10 through 80 meters, both SSB and CW. Mike does not intend to operate split frequency, unless absolutely necessary, and will be in the General, Advanced and Extra segments of the bands. No mention was made of the Novice bands. He will handle his own QSL duties and cards may be sent any of four ways. You may QSL direct stateside, the W3 QSL Bureau, via the ARV in Caracas, or to Colegio International de Carabobo, Apartado 103, Valencia, VENEZUELA. Mike is a teacher at the Internation School there.

Hong Kong (VS6)

A team from the San Francisco Bay area — headed by Dick Bash, KL7IHP — will be heading for Hong Kong in late March, where they will be operating as KL7IHP/VS6. It is possible that a simultaneous operation will be run from Macao as CR9FE.

The Hong Kong group will operate SSB and CW on 10, 15 and 20 meters, with the possibility of 40 and 80 meters and the Novice bands on 10 and 15 meters. If the Macao operation is approved, it will be SSB only on 10, 15 and 20 meters.

Operation from Hong Kong is scheduled from 26 March, operating almost continuously to on or about 2 April.

All QSL cards should be sent via KL7IHP, direct. Be sure to include an SASE. Stations outside the United States, its possessions and territories must include 3 IRCs for first class mail return.

Contacts with this station will not be valid for Worldradio's Worked 100 Nations Award, due to the reciprocal call, but don't despair. There are other active stations over there. On 80 meters, Paul Bailey, VS6DO has been worked from the East Coast around 1100 UTC on 3.501 MHz. SSB types might find V.K. Zachariah, VS6KV working the deserving on 14.220 MHz from 1200 UTC. There are several more over there, but none have been reported recently.

Iraq (YI)

YI1BGD, with four operators — Arsh. ·l, Kamal, Majid and Saad — can be fou. ' every Friday and Saturday from 0100 .. 0200, 0400 to 0730 and 1300 to 1700 UTC in the 14.215 to 14.220 MHz slot. They have also been found on other bands and have been reported on 28.487 MHz at 0930 UTC and 21.250 MHz at 1000 UTC, working the Europeans.

Send your QSL cards to the Scientific Center, P.O. Box 5864, Baghdad, IRAQ. If you work Kamal (one of the four operators), you may QSL direct to him, along with 3 IRCs: Kamal Abdul Hadi, Al-Kadimiyah, Al Ayimmah Bridge, House No. 24/6, Baghdad, IRAQ.

Portrait of the 80-meter DXer

There are two types of 80-meter DXers: 1) the dedicated low-band type who continually aspires to increase his 80-meter DXCC, and 2) the type who tolerate 80 only to achieve 5-Band DXCC. Both types react to 80-meter DX in a similar manner.

Working 80-meter DX — notwithstanding the skills and knowledge of antennas, equipment and the gray line — is somewhat a contradiction of human behavior. We generally are either night persons or day persons, but never both. To work 80-meter DX you have to be both. You stay up late for the DX sunrise and get up early for the DX sunset. This results in a phenomenon called "loss of sleep." To the avid 80-meter DXer, sleep is merely the absence of wakefulness. Whenever the conditions responsible for maintaining wakefulness, such as DX, are abolished, only then is one asleep. The mechanism generally conceived by the 80-meter DXer as necessary to sustain wakefulness is intense and varied stimulus in the form of QRN-encrusted weak signals from all parts of the world.

The 80-meter DXer, when not working DX, develops certain traits and characteristics which are easily recognizable:

1) He is the last to leave a party or a social event. What better time to listen for DX than at 2:00 or 3:00 in the morning.

2) He is known to drink large quantities of water before going to bed. Getting up at 3:00 a.m has its advantages. The band might be jumping.

3) If he is lucky, he may have prostate trouble. This is better than (2) above. He can check the band at 2:00, 4:00 and 6:00 a.m.

4) He suffers from a mild case of narcolepsy. He falls asleep at work meetings and conferences.

5) During the day he is generally irritable and out of sorts. This is readily curable at night or early morning by DX auditory stimulation.

From the foregoing, it may be concluded that successful working of 80-meter DX is not a case of mind over mattress.

This item was submitted to *The DXer*, the official publication of the Northern California DX Club, by Hal Godfrey, N6AN.

Clubs

The Kansas DX Association has elected their new slate of officers that will include Bill Freeland, AC0A, president; Allen Fowler, W0UQD, vice president; John Shoultys, WD0BNC, secretary-treasurer; and Dean Lewis, WA0TJ, activities and program director. The KDXA meets the second Wednesday of each month in the Salina area.

Marv Westerdahl, KC2KU submitted information on a Long Island area DX-orientated club to be added to the list of such clubs in the January issue. Radio Central Amateur Radio DX Group, c/o Marv Westerdahl, KC2KU, 10 Second St., Nesconset, NY 11767.

The Richardson Wireless Klub included in the list can be contacted at P.O. Box 232, Richardson, TX 75080. In that list, I included only clubs with a post office box number, as such an address is more or less a permanent address that does not change each year with the new officers. The Richardson Klub usually meets the second Monday of each month.

Officers for 1983 for the Radio Club of French Polynesia include Francois Theveneau, FO8IK, president; Marcel Hugron, FO8EW, vice president; Oliver Wohler, FO8HI and Richard T. Ley, FO8HL, treasurers; FO8IK, secretary; and FO8IQ, technical advisor.

Ross Forbes, WB6GFJ who submitted the above information says that the club is also responsible for the country's QSL bureau, which has a new address. All future correspondence with the FO8 QSL bureau should go via: Radio Club of French Polynesia; B.P. 5006; Pirae, Island of Tahiti; FRENCH POLYNESIA; South Pacific Ocean.

Incidentally, when you work an FO0 station, always ask for QSL instructions as all cards received via the bureau are not forwarded to the individual once he or she leaves French Polynesia.

Brazilian prefixes

Not so long ago, if you worked a Brazilian amateur, he signed with the PY prefix, followed by a single digit. When you heard a PY, you knew he was in Brazil. Recently, their government took advantage of their ITU prefix allotment and assigned a prefix for each Brazilian state. So, if you hear a PP5 or a PS8 or a PY3, you will know where he is.

PP1 Espirito Santo	(ES)
PP2 Goias	(GO)
PP5 Santa Catarina	(SC)
PP6 Sergipe	(SE)
PP7 Alagoas	(AL)
PP8 Amazonas	(AM)
PR7 Paraiba	(PB)
PR8 Maranhao	(MA)
PS7 Rio Grande do Norte	(RN)
PS8 Piaui	(PI)
PT2 Brasilia	(DF)
PT7 Ceara	(CE)
PT8 Acre	(AC)
PU8 Amapa	(AM)
PV8 Roraima	(RR)
PW8 Rondonia	(RO)
PY1 Rio de Janeiro	(RJ)
PY2 Sao Paulo	(SP)
PY3 Rio Grande do Sul	(RS)
PY4 Minas Gerais	(MG)
PY5 Parana	(PR)
PY6 Bahia	(BA)
PY7 Pernambuco	(PE)
PY8 Para	(PA)
PY9 Mato Grosso	(MT)
PY0 Brazilian Islands	

IOTA

Island hunters might be interested in the IOTA Awards program sponsored by Geoff Watts, former editor of the *DX News Sheet*. Geoff offers these IOTA, (Islands-on-the-Air), awards for contacts with the various islands and island groups around the world. Details are available for $2 or 6 IRCs, from Geoff Watts, 62 Belmore Rd., Norwich NR7 0PU, ENGLAND.

Some islands that qualify for these IOTA awards include the following:

EU-62 Vikna Island	LA9PX
AF-36 Chafarinas Is	ED9ICH
AS-35 Abu Ail	G5ACI/AA
AN-03 Heard Island	VK0HI
SA-10 Trindade	PY0TA

Some of these islands count as separate DXCC countries; in some cases, several DXCC countries make up a single IOTA island group. The Leeward Islands group (NA-22) is such a group that consists of Antigua, Dominica, Anguilla, St. Kitts, Monserrat, Guadeloupe, St. Martin and Sint Maarten.

VK9ZR DXpedition

Franz Langner, DJ9ZB — one of the participants in the DXpedition to Mellish Reef and Willis Island last year — has prepared a booklet detailing the operation. No details concerning the book have been received, but Frank refers to it as a picture book. He is asking $10 for the book and it can be ordered direct from Frank at Carl-Kistner-Strasse 19, D-7800 Freiburg i Br., WEST GERMANY.

160 meters

A copy of the new *West Coast 160M Bulletin* was received recently. The bulletin tries to cover all phases of operation on the top band, including DX. Interested parties may contact the editor, Dennis G. Peterson, N7CKD, 4248 A Street S.E., Box 609, Auburn, WA 98002. Subscription costs are $7 per year which includes six issues. Canadians may order through Rod Leach, VE7CRU, P.O. Box 144, Moyie, B.C. V8O 2A0, CANADA.

DX still shows on the top band and we have included a sampling of what has been worked and when. Frequencies are in kilohertz with the times UTC.

EZ7RAH	1847	0045
HZ1AB	1851	2200
VK6HD	1839	2100
4X4NJ	1833	2400
XE1MD	1804	0300
5N8ARY	1850	2200
UA0IBL	1910	1300
UA0FDD	1910	1200
UA0ZCR	1910	1330
EZ0DAA	1910	1330
UK0ZAD	1918	1330
N0ZO/DU2	1913	1330

The first five listed favor DXers in Europe, where this source of information came from. Look for HZ1AB after 0200 on Wednesdays and Thursdays near 1827 for North American contacts.

VK9YC on Cocos (Keeling) Island and VK9XM on Christmas Island have become active on this band. Also, look for VS6DO from Hong Kong, who is still reported to be very active.

New Spectrum editor needed

Steve Gregory, VK3OT, editor of the 'Spectrum' column (or DX editor), of Amateur Radio Action — a monthly Amateur Radio magazine published in Australia — has decided to "hang up the typewriter" after five years on the job. Steve says, "Next to my radio, my second love is my wife, followed by my two-way radio business and flying — the last two often combined."

In addition to being a DX editor, Steve has handled QSL chores for various remote stations and also his own contacts from the several DXpeditions he has participated in. One of his most recent DXpeditions was that of VK9YT Cocos (Keeling) Island and VK9XT Christmas Island, along with Bill Poellmitz, K1MM, who signed VK9YM and VK9XM.

Antique QSL Department

Bud Baldwin, W6CS was recently going through his old QSL cards and came up with these two. The first one dates back

Propagation

Maximum Usable Frequency from Burbank, CA
(courtesy of W6LS)

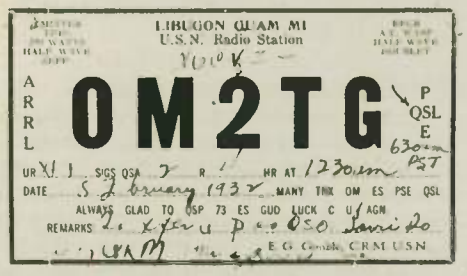
The numbers listed in each column are the Maximum Usable Frequency (in MegaHertz) for contacting five major areas of the world (Nairobi, Tokyo, Melbourne, Frankfurt, Rio de Janeiro) for low fire angle antennas.

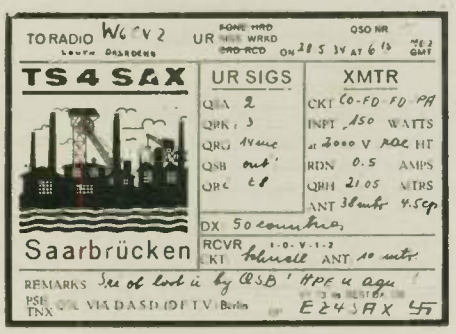
You can get a free *complete* set of these predictions for both high and low angle antennas, Maximum Usable Freqency (MUF) and Frequency of Optimum Transmission (FOT). Requests should be sent to W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (28¢) envelope at least 9″ × 11½″.

APRIL 1983

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	25.2	28.3	35.9	14.5	27.5
0200	20.5	27.9	35.9	13.5	26.7
0300	17.7	26.5	34.4	12.7	23.4
0400	18.8	24.1	31.5	12.6	21.0
0500	16.7	21.3	28.3	13.4	19.9
0600	15.1	19.2	25.9	14.8	19.6
0700	13.8	18.1	24.6	14.7	17.8
0800	12.6	17.5	23.9	14.0	13.2
0900	11.8	17.0	23.1	13.3	13.1
1000	11.5	16.5	21.8	12.9	17.5
1100	12.0	15.7	20.5	13.0	16.5
1200	13.4	14.8	18.5	13.9	16.8
1300	15.5	14.8	17.0	15.8	19.3
1400	17.7	16.3	17.9	18.2	22.5
1500	19.3	18.8	20.2	20.4	24.7
1600	20.2	18.7	19.7	21.6	25.7
1700	21.0	18.7	17.7	22.3	26.9
1800	22.0	18.4	16.0	23.0	29.1
1900	23.0	19.2	17.4	22.0	31.5
2000	23.7	22.3	22.4	20.6	32.3
2100	24.1	26.5	28.7	19.0	31.6
2200	24.7	28.9	33.3	17.3	30.6
2300	25.6	28.7	35.3	16.1	29.1
2400	26.1	28.5	35.8	15.3	27.8

to 1932 with a contact with OM2TG on Guam. Some time ago we used a Guam card in this column, but decided to run one again. Bud says the card did not indicate the band, but he is pretty sure it was 40 meters. Notice the honest report of 2 by 4! Bud was signing W6CVZ in South Pasadena in those days. The operator at OM2TG was E.G. Gimble. That OM2 prefix now is assigned to Czechoslovakia.





The TS4SAX QSL card represents Saarbrucken. Bud says this is his favorite card and remembers really trying to get him, and how wonderful it felt when he came back to him. The date of the contact was 28 May 1934. The operator was listed as EZ4SAX. Bud claims he thinks he worked the station as TS4SAX, not EZ4SAX. Another honest report on this one — 2 by 3! Notice the swastika at the lower right. This was 1934 and Adolf Hitler and his Nazi party were already in control of things over there. The TS4 prefix would now belong to Tunisia with the EZ4 prefix to the Soviets.

Your QSL bureau

In the past, comments have been made in this column concerning the slowness of the "J" segment of the California (W6) QSL Bureau. As always, I receive comments from the bureau manager as a result. This is unfortunate, but we DXers get rather emotional when our cards don't arrive. The general manager of this bureau — Archie Willis, W6LPJ — sent out an open letter to Worldradio, both California major DX clubs and a few other DXers, which we have printed below. Although it concerns the W6 QSL bureau, it should be typical for the other ARRL QSL bureaus.

I don't know if my complaints prompted Archie to write the letter, as most of the time the bureau problem rests on the individual DXer who fails to provide the bureau with envelopes. In all fairness to the bureau, I received my cards as of the end of December, so it appears the "J" segment has caught up on the backlog. Here is Archie's letter.

You worked the UJ8 six months ago and still haven't received that elusive QSL? "Ah," you say, "that QSL bureau has it and is sitting on *MY* QSL! Gee whiz, why do they hold MY QSLs when all of my buddies have received their QSLs months ago?"

Every DXer should remember that QSLs sent through the Bureau system sponsored by ARRL will take longer to deliver than those sent directly to you. When ARRL receives a shipment of QSLs from overseas, they are sent out to local groups to be sorted by district, 1 through 0. A local (Newington, Connecticut) group of disabled persons — most of whom are non-amateurs, do most of the sorting for ARRL. After the district sorting, they are packed and sent to each of the bureaus. The district bureaus must sort them according to their method of distribution.

In the 6th District bureau, the QSLs received from ARRL and directly from overseas are sorted into 26 segments, A through Z, the letter after the "6" being the designation. "First sorting" is accomplished by a rotating group of volunteers in the San Fernando Valley. When the QSLs have been sorted they are "pigeonholed," and at least once each month are picked up or packed and shipped to the Segment Manager of each segment. Each letter of the alphabet has a Segment Manager who picks his own assistants and, following guidelines set up by ARRL and the 6th District bureau, gets the QSLs out to those DXers who follow the bureau rules.

All mail is picked up daily at the Sun Valley Post Office by the general manager or his wife, sorted, envelopes made and proper credit given and placed by call sign segment in the appropriate pigeonhole to be picked up or packed with the sorted QSLs.

When the Segment Manager receives his allotment of QSLs, correspondence and envelope, he/she then must sort the QSLs, envelopes and correspondence according to his/her method of filing. Now the *real* fun begins: the Segment Manager has a large group of amateurs who follow the rules of the Bureau and ARRL and who are a constant source of satisfaction to serve. These are the amateurs who will receive monthly, bi-monthly or quarterly mailings of QSLs the bureau system has received from all over the world. These DXers will receive an update on their current status with the bureau. (Remember the time lag — sometimes the latest money/envelopes/stamps haven't had time to reach the Segment Manager!)

The heartbreak for the workers in the QSL bureau system is the vast number of QSLs received that will never be delivered to the amateur they are sent to. ARRL has established a 90-day minimun holding limit for the QSLs sent to the bureaus. The 6th District bureau requests the Segment Managers to hold all QSLs for at least six months, but many Segment Managers just take the ones they have stored for a year or more and put them in an attic, basement or storeroom. The Segment Manager is then to "destroy" these QSLs by placing them in bags for trash pickup, or by burning them; they will not be given to anyone except the person designated on the face or back of the QSL.

Amateurs who do not receive the QSLs sent to them from overseas are those who do not follow the rules of ARRL and their district bureau. These are the hams who do not keep funds or envelopes current; they change addresses, change or add call signs and will ignore messages or postcards from the bureau without a thought of the QSLs they are forcing the volunteers in the bureau system to store or destroy. If it were possible to return all the QSLs that have not been delivered to those addressed, it would probably stop most of the QSLing from DX stations around the world.

One common mistake many hams make should be mentioned: *DO NOT* send any USA to USA QSLs through the bureau system. All USA to DX country QSLs may be sent through the ARRL Outgoing Bureau, but amateurs must follow all the rules set up for this service, too.

A current listing of the Incoming DX-QSL Bureaus for each district is published in QST bi-monthly. An SASE to your bureau will bring you the requirements for that bureau. Please read these carefully and follow the rules and we will get that elusive QSL to you if you do your part.

QSL routes

A6XD	—DF6NM
A22DC	—VE3BIS
A71BJ	—G4HNP
AH2AQ	—WB0LTF
AH8AA	—W4FGX
C31NA	—F2PC
C31PB	—HB9AQL
CQ5UW	—CT4UW
CP6IM	—WB1DQC
CR9CT	—KB2XS
DK9VC/4D1	—DK9VC
DK9XB/3B9	—DL0LH
DP0LEX	—DL6NI
EP2TY	—JR3WRG
ET3PG	—DJ9ZB
FB9WH	—F6BFH
FB8WI	—F6GXB (See Note 1)
FB8XAB	—F6GXB (See Note 1)
FB8ZQ	—F6GXB (See Note 1)
FB8ZR	—F6GXB (See Note 1)
FK0AE	—F6EWK
FM0GA	—N6ZV
FM0GXO	—F6CKE
FO8IC/p	—F6GZI (or REF)
FO0JO	—W6GO
FP0JA	—KP2A
GD4BLG	—DL4FF
GD4CGV	—DL7FH
H44DS	—KB9MI
HC1BP	—W4PKM
HG100KZC	—HA8UB
HH2JR	—KA5V
HH2SD	—VE3CVZ
HL9TP	—N6TP
HT1CTJ	—HK3LT
IR0VMB	—IS0VMB
J20BL	—F6BFN
J73B	—8P6QI
J87BI	—KA2GMT
JW5VAA	—LA4YW
JX6RE	—LA6RE
K6PVM/PJ5	—XE2PG
K3UOC/PJ6	—K3GM
K3UOC/PJ7	—K3GM
K3UOC/PJ8	—K3GM
K3UOM/YV4	—K3GM
K9LA/V2A	—N0DH
K0CS/KH8	—K0CS
KH6IMX/KH4	—KH6IMX
OD5FB	—WA2QAU
OE2VEL/3D6	—OE2DYL
OX9OA	—OZ1FAO
P47E	—W4UY
PJ7VL	—W2BBK
PY0CW	—PY7ZZ
PY0TA	—PY1VOY (SSB)
PY0TA	—PY1BVY (CW)
T30DB	—G8LGB
T32AF	—WH6AIF
T32AK	—W9RCJ
T32AL	—WB7SIC
T32AM	—WB7SIC
TU2LE	—F6ESH
V2ARO	—WB6SHD
V3DX	—N6ADI
VP2KBU	—KC0FW
VP2MLQ	—KC2LQ
VP8ADF	—KA5IRZ
VP8AEN	—GM3ITN
VP8APQ	—G4LPQ
VP8HZ	—GM3ITN
VP8NH	—GM3ITN
VP8SB	—G4DMA
VS6GZ	—OE1HGC
VU9YOU	—K4YT
WB3KBZ/VP9	—KG8U
YB9VA	—KD7EC
YS9HH	—WB5GUV
YS9RVE	—WA0JYJ
ZF2AG	—N8NG
ZF2BS	—K2ITT
ZF2DS	—K2ITT
ZK1XX	—K6OZL
ZP5PX	—W3HNK
3A2EE	—F9RM
3B9DA	—3B8DA
4N1R	—YU1DZ
5N7HKR	—OE5RI
5T5AP	—CT4UW
5T5TO	—F6BUM
5V7NW	—AK3F
5W1EE	—W6OUL
6Y5IC	—G3XTJ
7P8CI	—KA2CDE
7P8CL	—SM5GOJ
8P6PC	—N2AWM
8R1Y	—8R1B
9J2BO	—W6ORD
9Y4IH	—WB3AKI
9Y50LL	—K2QIE
A4XCB	—P.O. Box 18530, Salalah, OMAN
CG1MCS	—Sydney ARC, P.O. Box 1051, Sydney, NS B1P 6J7, CANADA
ED9ICH	—P.O. Box 100, Melilla, SPAIN (See Note 2)
FO8IV	—P.O. Box 41, Hao Island, FRENCH POLYNESIA
FR0GGL/G	—P.O. Box 386, St. Pierre, REUNION ISLAND
G4KXL/DU1	—P.O. Box 2041, Manila, PHILIPPINE ISLANDS
KG4CD	—Box 585, FBPO Norfolk, VA 23593
KX6JM	—Box 673, APO San Francisco, CA 96555
M1V	—P.O. Box 1, Republic of San Marino
TL8ER	—P.O. Box 1503, Bangui, CENTRAL AFRICAN EMPIRE
WH2HCV	—P.O. G.Y. Agana, GUAM 96910
YS1GMV	—P.O. Box 1557, San Salvador, EL SALVADOR
Z21GO	—P.O. Box 39, Coull Dr., Mt. Pleasant, Marare, ZIMBABWE
ZD7AL	—P.O. Box 25, St. Helena Island
5B4LY	—P.O. Box 375, Larnaca, CYPRUS
5N3EC	—P.O. Box 222, Warri, NIGERIA
5Z4DA	—P.O. Box 3037, Nairobi, KENYA
7P8CR	—P.O. Box 212, Maseru, LESOTHO
8P6QK	—P.O. Box 167, Bridgeport, BARBADOS

Notes:
1. QSL manager F6GXB is reported not to be in the Callbook. Try 8 Rue Messager, 91240 St. Michel sur Orge, FRANCE.
2. QSL cards for ED9ICH are handled by EA9JV at the above address. Send direct only, not via the bureau.

Contributors this month include DJ9ZB, WB6GFJ, KC2KU, W6KG, W6QL, K3UOC/YV4, KR4C, K6FO, N8CWX, KL7IHP, W6LPJ, KA2JJK, W9HCI, KD7EC, AA6DX, KB9MI, W9LNQ, KA2EIO, W6CS, the Kansas DX Association, the Northern California DX Club, the Richardson Wireless Klub, the Western Washington DX Club, the Redwood Empire DX Association, the International DX Foundation, the Northern California DX Foundation, the Heard Island DX Association, *West Coast 160M Bulletin*, **Amateur Radio Action**, *The DX Bulletin*, *The Long Island DX Bulletin* and *DX News Sheet*.

Of the last batch of QSL cards received from the bureau, about two-thirds are from stations I had not sent a card to initially. So the task of answering these cards takes time, with a delay, as I have run out of cards. Isn't that always the case — you sent out hundreds of QSL cards, but only seem to receive cards from stations that you didn't send cards to. And, if you think it is a pain to answer these cards, think of the DX station at the other end who operates from a rarer location who has to answer your card, only to receive complaints when he doesn't QSL fast enough.

Those of you readers who receive **World**, a children's magazine published by the National Geographic Society, might want to glance at page 29 of the January 1983 issue. The girl is the youngest of my four children. Best of DX to you and 73, de John, N6JM. □

Can *any* YL top this?

Cathy Hrischenko, VE3GJH is the first YL *in Canada* to receive "5-Band DXCC." She would like to know if there are any other YLs anywhere who have received this award.

Please write to this exciting gal at 56 Stockdale Crescent, Richmond Hill, Ontario, CANADA L4C 3S9. □

●●●

Pass it on . . . WORLDRADIO

IC-740

Extensive Versatility for the Serious Operator

The ICOM IC-740 offers features found only on the best amateur equipment and performance second to none.

Dynamic Range. The IC-740 is built to withstand strong adjacent signals and still maintain sensitivity and distortion-free output of the desired signal in its passband. With a dynamic range of over **100 dBm** and an intercept point of **+18dBm,** the IC-740 receiver is a true performer. The IC-740 receiver is also **crunch proof,** and unlike many receivers that have good receiver specifications, it does not collapse under the presence of an RF field.

Other outstanding features that are a must for a modern, high-performance amateur receiver are included in the IC-740:

Passband Tuning, adding an additional filtering element to the receiver passband plus giving control of the actual width of the IF stages of the receiver... variable from 2.4 kHz to 700 kHz in SSB, CW or RTTY.

Variable AGC, a two speed AGC with an OFF position allows proper selection of AGC speed **regardless** of mode, VOX or CW breakin. The OFF position makes the IC-740 easily adaptable to frequency converters.

A **Noise Blanker** that really works with both wide and narrow pulse widths and a threshold control to give the optiumum blanking with minimum of signal distortion.

And...the IC-740 has an optional **Internal Power Supply** giving 160-10 meter transceive coverage in **one** package.

EX238
AC POWER SUPPLY

These and other fine receiver features plus ICOM's renowned transmitter audio make the IC-740 the **finest amateur transceiver** around today.

$50 Cash Rebate

$50.00 for the purchase of an IC-740.

Begins Dec. 15, 1982
Expires Mar. 31, 1983

ICOM

The World System

ICOM America, Inc., 2112-116th Ave NE, Bellevue, WA 98004 (206)454-8155 / 3331 Towerwood Drive, Suite 307, Dallas, TX 75234 (214)620-2780

IC-720A + IC-R70

The "plus" is the New IC-7072 Transceiver Unit

Now you can add ICOM's most versatile HF general coverage receiver to your IC-720(A). Combine the portability and operating convenience of the IC-720(A), with its long list of standard features...and the IC-R70, ICOM's latest general coverage receiver, into one transceiver by using the new IC-7072 transceiver unit.

Check ths list of features that will be added to your IC-720(A) receiving system:

Audio Monitor. Monitor your own transmitted audio and check SSB audio quality/CW keying characteristics.

Selectable AGC With Off Position. Perfect for use with transverters.

2 Position Noise Blanker. Very effective, virtually eliminates impulse noise.

500Hz CW Filter Standard. 250Hz (FL63) optional 8-pole filter.

3 Stage Preamp/Off (Direct)/Attenuator Control. Controls input to ICOM's Direct Feed Mixer receiving system.

Squelch Control. Effective in all modes allowing only signals above a certain strength to be heard.

Audio Tone Control. For easier listening/less fatigue.

Record Jack. Allows connection of a tape recorder to record both sides of a QSO. Unaffected by the volume or monitor control. Also may be used to drive an RTTY decoder.

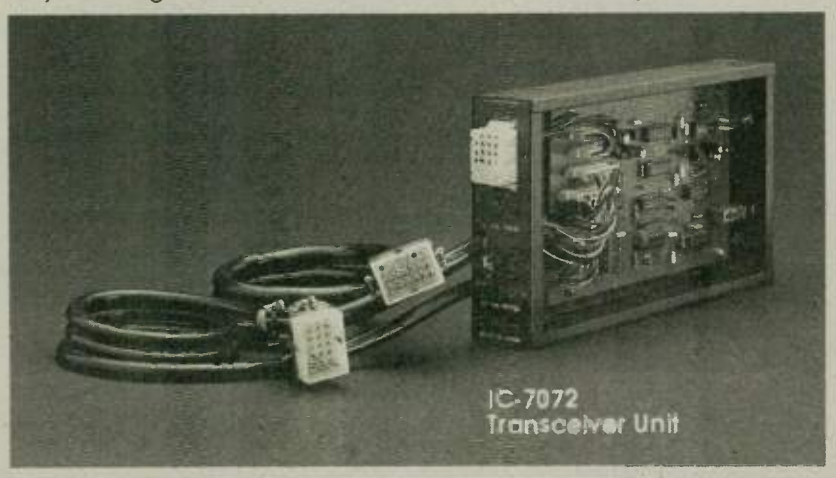
Notch Filter. Deep IF notch eliminates annoying hetrodynes from interfering adjacent signals.

Large Front Mount Speaker. Full 3 watts of audio.

Expanded Range Pass Band Tuning. For greater adjacent signal rejection in the AM mode.

Option for FM Reception. Useful for 10 meter FM.

Excellent, Clear Reception. With the R70's advance receiving system with the first IF at 70MHz, and with the lowest synthesizer noise level available — better than receivers costing much more.



Bring all of these advanced features to your IC-720(A) shack with the R70 and the IC-7072 transceiver unit. The plug-in IC-7072 transceiver unit slaves the CPU of the IC-720(A) to the IC-R70 microprocessor. This allows the tuning knob and selector buttons of the IC-R70 to control the IC-720(A).

Included with the IC-7072 are cables for the mute line control on the IC-R70 and a coax line to patch the IC-720(A) antenna into the IC-R70. An accessory connector on the IC-7072 is provided for attachment of "ICOM System" accessories such as the IC-2KL linear amplifier or IC-AT500 automatic antenna tuner or both.

Now your base station can have the most advanced ham/general coverage receiver available and the crisp transmitted audio of the IC-720(A) with RF speech processor. And yet, the 12 volt operated IC-720(A) may be taken mobile or portable for the ultimate in a ham band transceiver...and you still have general coverage reception...at both places!

ICOM

The World System

ICOM America, Inc., 2112-116th Ave NE, Bellevue, WA 98004 **(206)454-8155**/3331 Towerwood Drive, Suite 307, Dallas, TX 75234 **(214)620-2780.**

AWARDS

Scott R. Douglas Jr., KB7SB
P.O. Box IARS
Glendale, CA 91206-7609

For this month's column, let's take a look at some of the awards offered from our friends Down Under in New Zealand and the Solomon Islands.

ZL-CHC

This award is in the form of an 8½" × 11" pictorial and is offered to all licensed amateurs stateside for contact with at least 15 ZL CHC members, representing all four NZ call areas.

ZL-CHC Counties Award

Also in the form of an 8½" × 11" pictorial, this award is available to licensed amateurs for confirmed contact with ZL-CHC members in at least 25 different ZL counties. Only contacts made after 1 June 1975 are considered valid.

Aorangi Award

Here is another pictorial measuring 8½" × 11" offered for contacts with NZ amateurs who have been licensed from one to 10 years. Twenty total contacts are required.

Auckland Region Award

This award measures 8½" × 11" and is available to any licensed amateur for contact with at least 30 of the 270 ARA call areas of the Auckland region of New Zealand. Maps and checklists are available from the sponsor for your SAE and $1.

To apply for the above awards, the following applies to each application. Have your log extract "GCR" show the stations in alphabetical order by call sign, include $2 to cover the cost of issuance, and apply to: Certificate Hunters Club, New Zealand Chapter, Ihakara, R.D. #1, Levin, NEW ZEALAND. The award manager is Evan Tombs, ZL2IG.

Pictorials are big in the Pacific, and here is one from the Solomon Islands Radio Society.

4 from 44 Award

Issued for contact with four different H44 stations after 7 July 1978 on any

band or mode. Only fixed stations count, no /MM contacts. To apply for this award, send your log extract "GCR" along with the award fee of $2 to Solomon Islands Radio Society, Box 418, Honiara, Solomon Islands, SOUTH PACIFIC.

Now, coming much closer to home, let's look at a commemorative award offered by the Mexico DX Club to honor their 50th year of Amateur Radio. Issued on a point system, this award is available to any licensed amateur who accumulates at least 50 points. Contacts with any 6D5 etc. prefixes count for 2 points; 6J5LM counts for 10 points; 6D5LM counts for 10 points; 6D5MDX counts as 10 points; and XF4MDX also counts for 10 points, but only contacts made during February 1982 are valid for this station. MDXC members count for 2 points, and regular XE stations contacted during 1982 count for 1 point.

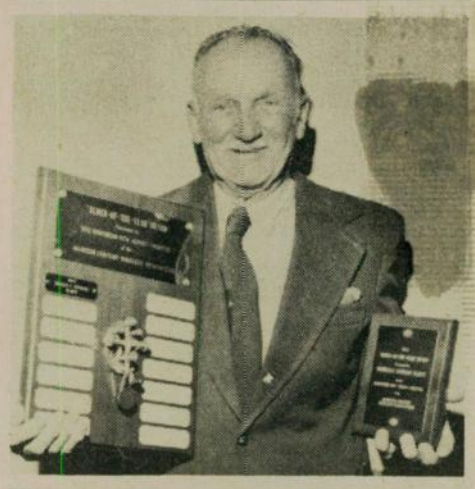
Send your log extract "GCR" along with $3 to Mexico DX Club, IARS/CHC Chapter 4, P.O. Box 21-167, Coyoacan 04000 D.F., MEXICO. Only 500 awards are being made available, so if you are interested, don't delay.

CW Award

Issued for contact with at least 25 different members of the Turlock Amateur Radio Club. This is an ideal achievement for you Novices, as their members take special efforts to make contacts on 3.710(±) the first and third Tuesday of each month. Try calling CQ TARC and see what happens.

To apply, send your log extract and large-size SASE to TARC via R. Lindquist, W6BXN, 2340 El Capitan Dr., Turlock, CA 95380.

That's all for this month. Let's hope the bands will improve. Best 73, Scott. □



Francis C. Leonard, W2NPT of Fairlawn, New Jersey as 1982 "Elmer-of-the-Year," holding plaques presented to him by the Northern New Jersey Chapter of QCWA. The larger of the plaques will rotate annually; the other will grace W2NPT's shack permanently.

Elmer-of-the-Year

Carl Felt, N2XJ

Francis C. Leonard, W2NPT was chosen as QCWA's Northern New Jersey Chapter's "Elmer-of-the-Year" from a field of nominees, by a committee which included such prominent local amateurs as George Diehl, W2IHA, newly elected Director of the Hudson Division of ARRL; Curtis Williams, W5DTR/2, Section Communications Manager of the Northern New Jersey Section; and Joseph Painter, W2BHM, Head of the W2 QSL Bureau.

W2NPT, a founder and past president of the Fairlawn, New Jersey Radio Club, has devoted most of his time for the past 20 years helping new and would-be amateurs — old and young, boys and girls — get their tickets and get on the air. His basement ham shack continues to be a haven for hatching new ham operators. □

Bill Stevens, W6ZM — Pacific Division Director (left) — presents an honorary plaque to Katashi Nose, KH6IJ. *(Photo by Rufus McCracken, W4YJK)*

KH6IJ honored with ARRL plaque

Lavern Peterson, KH6HQ

Katashi Nose, KH6IJ — an amateur operator known throughout the world — was recently honored at a special meeting of Hawaii amateurs held on Hickham Air Force Base. Katashi Nose was presented with a plaque from ARRL designating him as one of four amateurs in the Pacific Division selected to "The Court of Honor."

The presentation was made by Bill Stevens, W6ZM, Director of the division. This is a new award and KH6IJ is the first amateur from the Hawaiian Islands to be so honored. □

Extra couple

Here's a new Extra Class couple to add to your list. Dot Truhlar, N9ALC of Chicago, Illinois wrote to let us know she received her Extra Class license on 17 December 1982. Her husband — Bob W9LNQ — was already an Extra. Both have received 100 Nations Awards — Dot is #76, Bob's #77. □

Please
send NEWS and PICTURES to
Worldradio

Ralph Batcher Memorial Award

Ero Erickson, KA9DYS

Louise Ramsey Moreau, W3WRE of Glenolden, Pennsylvania — who characterizes her ham activities as being "99.9 percent CW" — received the Ralph Batcher Memorial Award at the 73rd awards dinner on 19 November, at the New York Sheraton Hotel, in an event conducted by the Radio Club of America.

This top recognition is awarded "to the member who is considered to have contributed to insuring a permanent place in history of important radio and communications activity," and has been granted to seven recipients since 1976, which includes such distinguished names as John F. Rider, W2RID; Bruce L. Kelley, W2ICE, curator of the Antique Wireless Association's museum in Holcomb, New York; and Ed Raser, W2ZI of Trenton, New Jersey, collector of historic radio artifacts and memorabilia.

Lou's outstanding collection of telegraph keys, started in 1955, currently consists of 322 instruments spanning 134 years of telegraphic history, which includes the hand-crafted "Camelback" series of 1848, through the spark era, the military keys of World Wars I and II, and manual semi-automatic senders and foreign types. She says the telegraph key is entirely and truly an American invention — conceived, born and first operated in America.

Lou Moreau's written contribution include many articles on telegraph keys and their involvement in emergency and disaster communications, which includes the three Johnstown, Pennsylvania floods of 1889, and 1936 and 1977.

The role of women in past and present communications was covered in QST from 1966 through mid-1979, when Lou was editor of the *YL News and Views;* she still edits the 'Key and Telegraph' column of the Antique Wireless Association's *Old-Timers Bulletin.* She has also won the Harry Houck Award (former assistant to Major Armstrong), the President's Award of the YLRL (Young Ladies Radio League), and is a member of the Telegraph Hall of Fame. She said that she has made the BPL (Brass Pounders League) a countless number of times and once handled a 200-message string of disaster traffic on 80 meters, at a pace "slightly under 35 wpm." As a Fellow of the Radio Club, she is truly a BPL — a Brass Pounding Lady.

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

ISKRA III has fallen into Earth's atmosphere and is no longer in operation. The Russian satellite had a 15-meter input and 10-meter output and was designed so as to be available only to Russian amateurs. This was due largely to its orbital track, but for any periods it might have been in view from the United States — however short — it must have been turned off. British amateurs reported hearing it with two-way SSB signals.

•

Phase IIIB is being readied for its launch at the end of next month.

•

UOSAT (OSCAR-9) during the Christmas/New Year period was operating in its Digitalker mode. Vern Riportella, WA2LQQ reports hearing it then. On New Year's Day, this correspondent heard UOSAT in its ASCII mode — probably 1200 baud.

•

Amateur spacecraft projects frequency plans are the subject of a chart prepared by AMSAT Deutschland and updated 4 October 1982 in Paris.

•

In the band from 145.5 MHz to 146 MHz in Region 2, only the SYNCART uplinks will use the 145.55 to 145.75 MHz, with frequencies to be determined within the range. The Phase IIIB and Phase IIIC will have a general beacon at 145.8125 MHz. The engineering beacon for Phase IIIB and C is at 145.990 MHz and the general beacon for UOSAT/OSCAR-9 is at 145.825 MHz. The Phase IIIB and Phase IIIC downlink band is from 145.825 to 145.975 MHz.

•

In the 435 to 438 MHz band the UOSAT Engineering Beacon is at 435.025 MHz. Phase IIIB uplink is at 435.05 to 435.175 MHz for Mode B. 435.2 to 435.4 is reserved for special services. Phase IIIC uplink band is 435.425 to 435.575 for Mode B. In the range 435.6 to 435.8, there is room for additional SYNCART or other expansion. Low-altitude missions are expected to use the range 435.8 to 436.0 MHz. The Phase IIIB engineering beacon will be at 436.02 MHz, and its general beacon will be at 436.04. The Mode-L downlink for the Phase IIIB will be from 436.15 to 436.95 MHz. Within that same band there is expected to be the wide band uplink to a 13cm transponder for the French ARSENE amateur spacecraft. The Mode L downlink for the the Phase IIIC is expected to be 437.15-437.95 MHz.

In the 1267-1270 MHz band, RACE and SYNCART expansion will be planned for to 1267.75 MHz. The SYNCART uplink band is 1267.75-1267.95 MHz.

The Phase IIIC Mode L uplink band is from 1268.05 through 1268.85 MHz. The band between 1268.85 and 1269.05 MHz is reserved for special services. From 1269.05 to 1269.85, the Phase IIIB Mode L uplink will be received.

The above listing of the various frequency use plans for the various AMSAT projects — which were begun in 1981 and will continue through 1986 — provides you with enough information to get your own gear ready for current and future amateur communication spacecraft activities.

UOSAT is in orbit and designated OSCAR-9. The Phase IIIB spacecraft will be launched in April 1983. The later projects will probably be launched as opportunities present themselves within one-year or two-year intervals thereafter.

Satellite tracking software

We have received from Ron Broadbent, G3AAJ — secretary of AMSAT UK — a copy of the publication *Satellite Tracking Software for the Radio Amateur* by John Branegan, GM4HIJ. The booklet lists programs for UOSAT tracking, weather satellites, the RS satellites, OSCAR-8, and other of the low-altitude orbits. Also included are elliptical orbit programs such as for the Molnya and Phase IIIB satellites.

There is a listing for locating a geostationary satellite with respect to your latitude and longitude. To whet the appetites of those of you who are into programming for satellite orbits and the like, we've included a copy of that program with this column. Also included is an AZ-EL tracking for OSCAR-8 listing.

For further information about the satellite tracking software book, please contact Ron Broadbent, G3AAJ at 94 Herongate Rd., Wanstead Park, London, E12 5EQ ENGLAND.

The listing in the charts shown here is designed for Microsoft BASIC and can be direct input to ZX-81 microprocessors. If your language doesn't permit the use of these programs, send a self-addressed envelope with your inquiry to John Branegan, GM4HIJ, 8-Whitehills, Loch Rd., Saline, Fife, SCOTLAND. Include IRCs for a reply to your questions.

Listing

```
200 REM GEOSTATIONARY
SATELLITES
```

Geostationary satellites have orbital periods very close to exactly 24 hours. Because their orbital period is the same as Earth's rotation period, they appear to remain fixed in the same place in the sky, with respect to a particular spot on the Earth's surface, and from their great height of 35,800 kms they can see most of one hemisphere of the Earth in their footprint, missing only the high polar latitudes.

Therefore, there is no requirement to track them, they do not appear to move, and once located the station antenna can be left fixed.

To locate a geosat from your station, you need know only its Longitude °West. Enter this at line 340 and this program calculates azimuth and elevation with respect to your station. Please check the worked example for location 10°W, then put your own station Lat and Long in lines 240 and 250. Southern Hemisphere station should enter their station latitude as negative (e.g., Perth Australia enter:— 240 LET L = − 32). Longitude at 250 is entered in degrees west of Greenwich.

Geostationary orbits are used for Entertainment TV sats, Global Weathersats, Comsats of the Intelsat Marecs families, Business sats SBS 1 SBS 2, Russian Ghorizonts, Ekran TV and Comsats, and Statsionar Entertainment TV sats. A Radio Amateur Comsat package riding on a commercial geosat bus is scheduled for orbit by 1984, in a position covering the Americas.

```
  240 LET L=56.113
  250 LET G=3.575
  260 LET P1=3.14159265
  300 PRINT "PLEASE ENTER
EQUATOR LONGITUDE OF GEOSAT IN
DEGS WEST"
  340 INPUT C
  350 CLS
  360 PRINT "GEOSTATIONARY SAT
AT"; C; "W"
  370 PRINT . ,
  380 PRINT "STATION AT "; L; "N "; G;
"W", , ,
  390 LET L=L*P1/180
  400 LET G=G*P1/180
  410 LET C=C*P1/180
  440 LET Z= ABS (C-G)
  450 IF Z►P1 THEN LET Z= ABS
(2*P1-Z)
  460 LET D= COS L* COS Z
  470 LET D=- ATN (D/ SQR
(-D*D+1))+P1/2
  480 IF D►1.41895 THEN GOTO 640
  490 LET J=(- SIN L* COS D)/( COS L*
SIN D)
  500 IF ABS J►.99999 THEN LET J=
( SGN J)*.99999
  540 LET AZ=(- ATN (J/ SQR
(-J*J+1))+P1/2*57.3
  550 IF C►G AND C◄(P1+G) OR
C►(2*P1+G) THEN LET AZ=360-AZ
  560 LET E=(P1/2-( ATN (42171* SIN
D/(42171* COS D-6371))))*57.3
  570 PRINT "AZIMUTH STATION TO
SAT = "; INT (AZ+.5);,
  580 PRINT . ,
  590 PRINT "ELEVATION STATION TO
SAT = "; INT (E+.5);,
  600 GOTO 650
  640 PRINT "SATELLITE BELOW
HORIZON"
  650 STOP
```

Worked example

GEOSAT
GEOSTATIONARY SAT AT 10W
STATION AT 56.113N 3.575W
AZIMUTH STATION TO SAT = 188
ELEVATION STATION TO SAT = 26

LISTING OSCAR8 AZ EL BY GM4IHJ

Line 100 opens this listing with titles.
110 120 Request for EQX time entry,
130 Clear screen
140 150 enter EQX bearing.
Then print table headings 170 180.
Lines 210 220 are station Lat and Long.
Please do not change these to your own station location until you have proved the worked example.
230 is constant π and at
260 we start calculating with T = 6 (southern Europe T = 1)
270 280 get sat lat and long, and we increase T by 2 ready for next run at 290, with 300 providing an early exit when sat is out of range (southern Europe use T► 51).
330 340 sort out east and west, and
350 calculates ½GCangle.
360 we return for a new calculation if size of ½GCangle indicates satellite out of range.
380 400 420 calculate AZ E as before, then
430 switches us to a time tidy routine where we add calculation time T − 2 to the EQX time.
520 530 overcomes the problems of EQX 1338 plus (T − 2 =32), so we get 1410 not 1370, and
540 corrects if we go beyond midnight.
560 to 600 re inserts the zeroes to make 110 UT, the tidier 0110 UT. Next we return to the main program to print time AZ EL then
450 send us back to the start for a new calculation of AZ EL, until finally
300 exits the program to the END.
470 STOP prevents overrun.

```
  100 PRINT "OSCAR 8 AZ EL"
  110 PRINT AT 3,0; "PLEASE ENTER
TIME UT OF EQUATOR CROSSING AS H
HMM (EG. 0945)"
  120 INPUT X$
  130 CLS
  140 PRINT AT 6,0: "PLEASE ENTER
EQX BEARING IN DEG W EG. 30.2"
  150 INPUT W
  160 CLS
  170 PRINT "OSCAR-8 EQX "; X$;
"BEARING"; W; "W"
  180 PRINT AT 3,0; "TIME UT"; TAB 9;
"AZIMUTH"; TAB 18; "ELEVATION"
  190 PRINT
  210 LET L=56.113
  220 LET G=3.575
  230 LET P1=3.14159265
  240 LET L=L*P1/180
  250 LET G=G*P1/180
  260 LET T=6
  270 LET B= ASN (.98796* SIN (2*
P1*T/103.2))
  280 LET C= ACS (( COS
(2*P1*T/103.2))/(COS B))+(T/4+W)*P1/180
  290 LET T=T+2
  300 IF T►45 THEN GOTO 460
  330 LET Z= ABS (C-G)
  340 IF Z►P1 THEN LET Z= ABS (2*
P1-Z)
  350 LET D= ACS ( SIN L* SIN B+ COS
L* COS B* COS Z)
  360 IF D►.5 THEN GOTO 270
  380 LET AZ=57.3*( ACS (( SIN B- SIN
L* COS D)/( COS L* SIN D)))
  400 IF C►G AND C◄(P1+G) OR C►(2
*P1+G) OR C◄(G-P1) THEN LET
AZ=360-AZ
  420 LET E=(P1/2-( ATN (7281* SIN D/
(7281* COS D-6371))))*57.3
  430 GOSUB 500
  440 PRINT TAB 1; T$; TAB 11; INT AZ;
TAB 22; INT E; , , ,
  450 GOTO 270
  460 PRINT "END"
  470 STOP
  500 LET X= VAL X$
  510 LET X=X+T-2
  520 LET X1=X-( INT (X/100))*100
  530 IF X1 ►= 60 THEN LET X=X+40
  535 REM ►= IS SHIFTED Y KEY
  540 IF X►2400 THEN LET X=X-2400
  550 DIM E$(4)
  560 LET E$="0000"
  570 DIM T$(4)
  580 LET X2=4- LEN STR$ X
  590 LET T$=E$(1 TO X2)+ STR$ X
  600 RETURN
```

Worked example
OSCAR-8 EQX 0807 BEARING 185W

TIME UT	AZIMUTH	ELEVATION
0835	17	3
0837	19	12
0839	23	26
0841	35	53
0843	158	68
0845	185	34
0847	190	16
0849	192	6

END
NOTE: Example used Scottish Lat Long.

The ART of Contesting

Duping JA's

Jerry Seligman, W7BUN

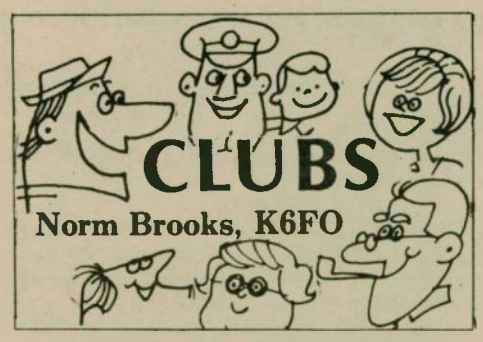
While duping the hundreds of JA's worked in a CQ WW Contest, I thought I would pass along a system for others who face the same chore. I have been using this method for several years, quite successfully.

The system is easy to learn and remember because the second letter in the prefix has a direct relation to the shape of the symbol used with the suffix as it is entered on the dupe sheet. For example:

Prefix	Symbol	Example	Entry (in proper "number" column)
JA	None (just enter)	JA1ABC	ABC
JD	follow with)	JD1ALN	ALN)
JE	triple underline	JE2HCJ	HCJ
JF	double underline	JF2ERJ	ERJ
JG	circle	JG3CXJ	(CXJ)
JH	single underline	JH2BFU	BFU
JI	enclose in a box	JI1WRM	[WRM]
JJ	underline ◡	JJ1DBF	DBF◡
JK	precede with <	JK1WNK	<WNK
JL	precede with ⌊	JL1CCX	⌊CCX
JM	enclose in ⌐ ¬	JM1OME	⌐OME¬
JR	above ◠	JR4LTQ	◠LTQ

— Western Washington DX Club, Clinton, WA □

Send your news to Worldradio at the same time you send it to other amateur publications and see who prints it first. We get the news out before anyone else.



What's in a name?

Does your club publish a newsletter? A majority of clubs do. If you do, what do you call it?

Here at Worldradio we receive copies of almost 300 club papers, sent to us by you editors out there. I read them all, and it is quite a task. I've been keeping track of the names of your papers, and I thought I'd share some interesting information with you.

A large number (too many) of the papers have no name at all! The paper usually states the name and/or logo of the club, as though that were the name of the paper. Then, others go one step further and call their paper the "Soandso" ARC Newsletter.

The ARC, of course, stands for Amateur Radio Club, and here's how some clubs show their originality. We have *Arc Over* and *Arc Light*. Then some clubs put an initial before the ARC, representing the club's name. Thus, *BARC* (there's even a *BARC'S BARK*), *CLARC, HARC, LARK* (they spell it "klub"), *MARC, MARC News, MARC Gram* and *MARCO*. Clubs with initials "SP" have a Field Day with *SPARK* and *SPARK Gap* (several of these.)

Many papers are named after radio equipment terms: *Beam, Balanced Modulator, Common Ground, Coherer, FM Scanner, Ground Plane, Grounded Grid, Keyer, Loudspeaker, Linear Lines, Modulator, Mike and Key, Nuts and Volts, Oscillator, Quarter Wave, Rack Panels, Repeater and Transceiver.*

Continuing with more radio terms: *Bandspread, B Plus, Carrier, Crossbander, Electron, Ground Wave* (lots of these), *Communicator, Hi Q, Loud 'n Clear, Net News, Propagator, Skip, Short Skip, Signals, Sine Waves, Sine of the Times, Spectrum* and *Wavelength.*

Murphy comes in for a good share of recognition with names like: *Arc Over, Background Noise, Backscatter, Blown Fuse, Burr, Crosstalk, Chatter, Echo, Feedback, Harmonics, Key Klix, Rain, Splatter, Short Circuit, Wobbly Oscillator* and *Smoke Signals.*

Let's not overlook Q and other signals: *QRM, QRP'er, QRZ, QSA5, QSP, QSX, QUA* and *5 by 9.*

The conservative crowd reads club papers named: *Bulletin, --Calling, Monitor, --Gram, Gazette, News, Newsletter, Newsette, Tides, Journal* and *Log.*

Some clubs do a good job with their club nickname, location or acronym, such as: *Barracks Bugle, BARN, Cheese Bits, CHARRO, RATS, Ham and Eggstras, Kettle Drums, Little Words of Wisdom, Fuddy Duddy Telephoneers, Ole Virginia Hams, OTVARC, PAARA-Graphs, PROcrastinator, RAMS, SELARC Hamster, State of the ARTS, Watts Happening* and *WATTS SNOO.*

Leave it to the mountain-toppers to use names like: *Downlink, Kerchunk, Carrier, Hilltopper, Scatter, Skip, Voice of 76, Spirit of 76* and *88.*

If I had to pick the cleverest of all the names I have on hand, I'd give the Illiana Repeater System, Gatlin, Illinois the honor. With their acronym "IRS", they name their paper the *IRS Audit.* □

WV amateurs invited to attend

Ted Wolfe, WD4KHL

Amateurs licensed in West Virginia are all considered members of the West Virginia State Amateur Radio Council. Some newer amateurs in the state may not be aware of this. All licensed amateurs in the state are welcome to attend the council's quarterly meetings and provide their input and advice.

Those quarterly meetings are held at the state 4-H Camp at Jackson's Mill, the same place where the state ARRL convention and hamfest is held every July (2-3 July in 1983). They usually talk only three or four hours for business.

The primary function of the council is arranging and sponsoring the annual convention, but it also sponsors and administers the West Virginia State QSO Party, the annual Field Day award competition in the Mountain State, and the West Virginia Amateur of the Year award program.

Most of the council's day-to-day business is handled by the committees appointed to supervise a particular event or by the Executive Committee.

Officers of the council serve two-year terms. They are elected at the fall meeting every other year, in odd-numbered years.

Officers presently serving are: Mike Palmer, K8LG, president, who moved up to the post in 1982 to succeed Bill James, WA8GYU, who resigned; Ed Sutton, WA8FLF, treasurer; and Rose Victor, K8YL, secretary.

The Executive Committee met in late 1982 to fill the vacancy in the vice president's post. They named Bill Pace, KB8ZM to the post vacated by K8LG when he moved up to the presidency.

All West Virginia radio amateurs should be aware that they are welcome and that their support is sought to help run the affairs of the West Virginia State Amateur Radio Council. □

Tucson SABBAR amateurs

Clyde Whitman, K7RIS

The Tucson, Arizona SABBAR Shriners, and several local amateurs associated with Tucson Repeater Association (TRA), Metropolitan Amateur Radio Club (MARC) and others, have for several years provided public service and communications at Shriner circuses, ball games, and parade activities. During November 1982, we activated the SABBAR Temple Radio Operators (RADOPS) Group, which has grown by leaps and bounds.

Scouts learn Q signals

On 5 October 1982, Cub Scout Den 4, Pack 353 from St. Rita's School was treated to a demonstration of Amateur Radio as part of our study of communications. Ken Van Andel, WB9FRV explained Morse code and gave the boys a little hands-on time with a key and a bug. The boys passed around some QSL cards and discovered what all those Q signals and prefixes meant. The boys were fascinated as Ken explained SWLing and tuned in some foreign language stations so they could listen around the world.

Thanks, Ken, for taking part of your day off to share your intriguing hobby with us! (— Liz Johnson and Louise Van Andel, den leaders)

— *Fox River Radio League, Aurora, IL* □

YOUR LOCAL RADIO CLUB

ALASKA

Arctic Amateur Radio Club
Geophysical Institute West Ridge U of A
PO Box 81389
College, AK 99708
1st Friday/monthly - 7:30 p.m.

ARIZONA

Tuscon Repeater Association
P.O. Box 40371, Tucson, AZ 85719
2nd Sat/monthly — 7:30 p.m., Pima Co. Bldg.
Net Thurs 7:30 p.m. 146.22/82 (146.28/88 & 147.69/09)
(602) 747-8903 or 899-4776

CALIFORNIA

Amador County Amateur Radio Club
PO Box 598, Pioneer, CA 95666
Pioneer Elementary School, Pioneer, CA 95666
1st Thursday/monthly - 7:30 p.m.
Talk-in 146.235/146.835

Antelope Valley Amateur Radio Club, K6OX
Lancaster School Board
44711 N. Cedar Ave., Lancaster, CA 93534
4th Wed/monthly-7:00 p.m.

Contra Costa Communications Club WD6EZC/R
Box 661, San Pablo, CA 94806
Meet 2nd Sun. at 9:00 a.m.
Hickory Post Restaurant/Lucky Lanes
Info call Carl KA6OLK (415) 237-2621

East Bay Amateur Radio Club
P.O. Box 6017, Albany CA 94706
Salvation Army Bldg., 36th & Rheem,
Richmond (415) 525-6200
2nd Friday/monthly — 7:30 p.m.

Fresno Amateur Radio Club, Inc.
P.O. Box 783, Fresno, CA 93712
Meets: 2nd Friday/monthly - 8:00 p.m.
Wawoha Middle School; 4524 N.
Thorne; Fresno. W6TO/R 146.34/94

Gabilan Amateur Radio Club
Monterey Savings & Loan Public Room
Corner First & Westwood
Gilroy, CA 95020
2nd Thursday/monthly - 7:30 p.m.

Livermore Amateur Radio Klub
2441 Heatherlark Cr., Pleasanton, CA 94566
Meets: Valley Memorial Hospital
Multi-purpose room, Livermore, CA
2nd Friday/monthly - 7:30 p.m.

Mt. Diablo Amateur Radio Club (MDARC)
Grace Presbyterian Church
2100 Tice Valley Road
Walnut Creek, CA 94598
3rd Friday/monthly - 8:00 p.m.

North Hills Radio Club
P.O. Box 41635, Sacramento, CA 95841
Meets: Gethsemane Lutheran Church
4706 Arden Way, Carmichael, CA 95608
3rd Tuesday/monthly

Sacramento Amateur Radio Club, Inc.
Contact: Chet Almond, N6DRU, (916) 967-4295
Meets: MARS Building, Sacramento Army Depot
Troop gate, Florin-Perkins Road
2nd Wednesday/monthly - 7:30 p.m.

San Gabriel Valley ARC
Bowling Green Clubhouse
405 S. Santa Anita Avenue
Arcadia, CA 91006
1st Tuesday/monthly - 7:30 p.m.

Santa Cruz County ARC
PO Box 238, Santa Cruz, CA 95061
Last Friday/monthly - 8:00 p.m.
San Fran. Fed. Savings, 1995 41st Ave., Capitola
K6BJ repeater 146.19/146.79

S.C.A.T.S./WB6LRU
S. CA Amateur Transmitting Society
PO Box 1770, Covina, CA 91722
Vine School
1st Monday/monthly - 6:30 p.m.

Sierra Foothills ARC
PO Box 3262, Auburn, CA 95604
Office of Education Bldg.
360 Nevada St., Auburn CA 95603
2nd Thursday/monthly - 1930

Silverado Amateur Radio Society - (SARS)
Silverado Jr. High School
1133 Coombsville Rd., Napa, CA 94558
Bill Williams. N6EIH - (707) 255-7600
1st Tuesday/monthly - 7:30 p.m.

Simi Settlers ARC (SSARC)
PO Box 3035, Simi Valley, CA 93063
3rd Thursday/monthly - 7:30 p.m.
Bank of A. Levy (across Larwin Sq.)
K3HZP/R 147.765/165 Simplex 147.48

Sonoma County Radio Amateurs, Inc.
Box 116, Santa Rosa, CA 95402
Hank Davis, W6DTV (707) 823-7885
County Office of Emergency Service
1st Wednesday/monthly - 8 p.m. rptr 146.13/73

Stockton Amateur Radio Club
U. of Pacific, Rm. 122
Kensington & Mendocino Sts.
2nd Wednesday/monthly - 7:30 p.m.
Rptr. roll call: Wed. 8 p.m. - 147.165/765

Tri-County Amateur Radio Association
Pomona First Federal Savings and Loan
399 N. Garey Ave., Pomona
Talk-in 146.625/025 For info. call (714) 985-8184
2nd Monday/monthly - 7:30 p.m.

Valley of The Moon Amateur Radio Club
358 Patten St., Sonoma, CA 95476
Darrel Jones, WD6BOR (707) 938-8086 For Info.
Meets: odd months, 2nd Tuesday, 7:30 p.m.. Sonoma
Police Dept.; even mo., 2nd Sun., 11 a.m., bkfst.

Ventura County Amateur Radio Club
Oxnard Community Center
Camarillo Room
900 Hobson Way, Oxnard, CA
2nd Friday - 7:30 p.m.

West Coast Amateur Radio Club
Fun Meetings — No Business
Fountain Valley Recreation Center
Visitors welcome — call in 144.330 simplex
Call KA6RRR (714) 636-8661 for dates

CONNECTICUT

Tri-City ARC, Inc.
P.O. Box 686, Groton, CT 06340
Meets: Groton Public Library
Rt. 117, Groton, CT
2nd Tuesday/monthly - 7:30 p.m.

FLORIDA

Fort Myers Amateur Radio Club, Inc. W4LX
Jeff Beals, WB2OUK, President, (813) 334-4004
Meets 1st Wednesday/monthly-7:30 p.m.
First Federal Savings and Loan of Ft. Myers
121 Pondella Rd., North Fort Myers, FL

Greater Titusville Amateur Radio Club
c/o W.R. Young, N4DQT, 3845 Catalina St.
Titusville, FL 32780 • Repeater 146.31/91
3rd Monday/monthly - 7:30 p.m.
Chamber of Commerce Bldg.

Indian River Amateur Radio Club
PO Box Five, Cocoa, FL 32922
1st National Bank, Merritt Island
Cor. SR 3 and SR 520, Merritt Island
4th Tuesday/monthly - 7:30 p.m.

Sarasota Amateur Radio Assoc., Inc.
Sarasota Co. Admin. Ctr.
US301 & Ringling Blvd. - 6th fl. lounge
President: Mort Clarke, N4GYJ
3rd Tuesday/monthly - 8:00 p.m.

GEORGIA

Gwinnett Amateur Radio Society
Red Cross Center
Hi Hope Rode, Lawrenceville, GA
147.87/27 for Talkin/Info.
3rd Thursday/monthly - 7:30 p.m.

HAWAII

Big Island Amateur Radio Club
Helco Auditorium
1200 Kilauea Avenue, Hilo
Call-in 146.28/88
2nd Tuesday/monthly - 7:30 p.m.

ILLINOIS

Chicago Suburban Radio Association (CSRA)
Clyde Federal Savings & Loan Assn.
7222 West Cermak Road
North Rivrside, IL 60546
2nd Wednesday/monthly - 8:00 p.m.

For information on how to get your club listed in this column, plus receive many other benefits, write to Dave Tykol, WA6RVZ, Club Liaison, Worldradio, 2120 28th Street, Sacramento, CA 95818.

Fox River Radio League
McCullough Park Dist. Bldg. Rm. 101
Rt. 31 & Illinois Ave., Aurora, IL
(312) 898-2779 for more information
2nd Tuesday/monthly - 7:30 p.m.

Radio Amateur Megacycle Society
Irvingwood Acacia Church
3900 N. Plainfield, Chicago, IL 60634
(312) 625-2879
3rd Friday/monthly - 8:00 p.m.

Tri-Town Radio Amateur Club
PO Box 302, Hazelcrest, IL 60429
Above Hazelcrest Police Station
1st & 3rd Friday/monthly - 8 p.m. (except July & Aug)
Net every Wed. 8 p.m./146.49 MHz

INDIANA

Allen Co. Amateur Radio Tech'l Society, Inc.
PO Box 10342, Ft. Wayne, IN 46851
Allen-Wells Charter House • Amer. Red Cross
1212 E. California Rd., Ft. Wayne, IN 46825
3rd Tuesday/monthly - 7:30 p.m.

Fort Wayne Radio Club
Ron Koczor, K9TUS
PO Box 15127, Fort Wayne, IN 46885
The Salem Church
3rd Friday/monthly - 7:30 p.m.

Indianapolis Repeater Assoc.
4th Monday/odd numbered months
Carson Manufacturing
5154 N. Rural St., Indianapolis
146.10/70 147.12/72

IOWA

Muscatine Amateur Radio Club
Info: Jere Yanek, KA0KPO (319) 264-5490
Meets: Basement Meet. Rm., Public Safety Bldg.
Muscatine, IA
1st Monday/monthly - 7:30 p.m.

RSCB (Radio Society of Council Bluffs)
Richard Swig, WA0ZQG, Secretary
104A Jennings Road
Council Bluffs, IA 51501
2nd Tuesday/monthly - 7:30 p.m.

Sooland Repeater Association (SRA)
KD Stockyards Station
2001 Leech, Sioux City, IA
Classes Thursdays 7-9:30 p.m., Sept-May
Club meets 3rd Tue. 7:30 p.m.

MARYLAND

Frederick Amateur Radio Club
Frederick Electronics
Vernon Simmons, KA3CVD
(301) 371-5735 after 1800 except Thur.
2nd Tuesday/monthly - 2000

MICHIGAN

The Eastern Mich. ARC (EMARC)
St. Clair County Comm. College
Student Center Building (Cafeteria)
Port Huron, MI (313) 364-9640
1st Tuesday/monthly - 7:30 p.m.

NEW JERSEY

Gloucester County ARC, W2MMD
PO Box 370, Pitman, NJ 08071
American Legion Post
Delsea Dr., Rt. 47, Clayton, NJ
1st Wednesday/monthly - 8:00 p.m.

Old Bridge Radio Assoc. (OBRA)
Cheesequake Firehouse — Route 34
Old Bridge Township, NJ
Daily 8 p.m. Net on 147.72/.12 MHz
3rd Thursday/alternate (odd) months 8 p.m.

NEW YORK

Amateur Radio Assoc. of the Tonawandas
City Hall, Community Room
200 Niagara Street
City of Tonawanda, NY 14150
3rd Tuesday/monthly - 8:00 p.m.

Hall of Science Amateur Radio Club, Inc.
PO Box 131, Jamaica, NY 11415
Queens County Dental Society Bldg.
86-90 188th St., Jamaica, NY
2nd Tuesday/monthly - 7:30 p.m.

Long Island Mobile Amateur Radio Club (LIMARC)
146.25/85, 147.975/375, 223.22/.224 .82, 444.125/449.125
Membership: Jerry Kamen, K2QXH, 44 Robin Lane,
Levittown, I1756 Net every Mon. 8:30 p.m. 146.25/85
Meets 1st Tues/8 p.m., H.B. Thompson, JHS, Syosset

Suffolk County Radio Club
Meets 1st Tues. monthly, 8 p.m.
Bohemia Recreation Center
Smithtown Ave., Bohemia, Long Island
More info! Jim Heacock, KA2LCC, (516) 473-7529

NEW HAMPSHIRE

Great Bay Amateur Radio Assoc.
Airex — Tel. 742-3703
Route #16, Dover, NH 03820
2nd Sunday/monthly - 7:00 p.m.

NORTH CAROLINA

Wayne County Amateur Radio Assoc., K4CYP
PO Box 1578
Goldsboro, NC 27530
MGN Regency-Uptown
3rd Saturday/monthly - 8:00 a.m.

OHIO

Ashtabula County ARC
Ken Stenback, AI8S (964-7316)
County Justice Center
Jefferson, OH
3rd Tuesday/monthly-7:30 p.m.

Champaign-Logan A.R.C., W8EBG/R
Joe Palmer, KS8M, President
2 Meter Net, 147.60/00, Tuesdays, 8:30 p.m.
Dinner Meeting, 1st Thursday/monthly
Dajolees Restaurant, West Liberty, OH, 7 p.m.

Findlay Radio Club
1333 W. Sandusky St./Box 587
Findlay, OH 45840
Repeater 147.75/15
1st and 3rd Thursday/monthly - 7:30 p.m.

OREGON

Oregon Tualatin Valley ARC
Port and General Electric Auditorium
14655 S.W. Old Scholls Ferry Road
Beaverton, OR 97005
3rd Wednesday/monthly - 7:00 p.m.

TENNESSEE

Lakeway Amateur Radio Club
Randy Hall, Activities Mgr.
Box 1636, Morristown, TN 37814
State Area Vocational School
Last Thursday/monthly - 7:30 p.m.

TEXAS

Garland Amateur Radio Club (GARC)
146.775/146.175 K5QHD/R (info Net Mon. 7:30 p.m.)
Garland Women's Activity Building
713 Austin Street, Garland
4th Monday/monthly - 7:30 p.m.

Houston Amateur Radio Club, W5DPA
7011 Lozier Street
Houstin, TX 77021
(713) 747-5073
Fridays/weekly - 7:30 p.m.

UTAH

Utah Amateur Radio Club (UARC)
Room 161, Murray High Sch., 5300 S. State
Gordon R. Smith, K7HFV
582-2438/talk-in 16/76
1st Thursday/monthly - 7:30 p.m.

VIRGINIA

Eastern Shore ARC (ESHARC)
110 Church Street
Chincoteague, VA 23336
Repeater WA4TVS 147.855/.255
Net Mon. 9 p.m. Mtgs. as announced

Southern Peninsula Amateur Radio Klub (SPARK)
Repeater 146.13/146.73 — WR4ALW
VEPCO Bldg. (Penbroke Av. & G St.)
Hampton, VA
1st and 3rd Wednesday/monthly - 7:30 p.m.

WISCONSIN

Racine Megacycle Club
Red Cross Building
4521 Taylor Avenue
Racine, WI 53405
2nd Monday/monthly - 7:30 p.m.

WEST VIRGINIA

Jackson County Amateur Radio Club, Inc.
Bob Morris, WA8CTO, Sec.-Treas.
308 Edgewood Cir., Ripley, WV 25271
First National Bank of Ripley, WV
1st Thursday/monthly - 7:30 p.m.

SUBSCRIBE TO WORLDRADIO; see page 9

LIMARC people are active

Charlene Babb Knadle, WB2HJD

There is almost no Amateur Radio-related interest in which LIMARC (Long Island Mobile Amateur Radio Club) members are not involved. Usually, they will have been among the first to begin the activity. The club, boasting 600 members, is the largest on the East Coast. "We are the FORCE for Amateur Radio on the East Coast, and intend to maintain that position," says Hank Wener, WB2ALW.

LIMARC attracts members by its several efficiently-run repeaters (maintained in a professional way by Manney Marcel, WB2BON and his volunteer crew). Its strategic location — the middle of the most densely-populated part of Long Island — and its ability to reach throughout the metropolitan area also help. The club encourages all users to become dues-paying members. When, in the past, this was not so, maintenance costs all but depleted the treasury. With so many motorists keying into LIMARC's most popular 2-meter repeater, one (typically, retired) volunteer member or another monitors the frequency to identify repeat users who are not paid members and applies gentle pressure to join. With a monthly rental and other-operating-cost base of $1,000, this is a necessity.

The club began in the 1960s on 20 meters with a nucleus of 10 members, and switched to 2 meters when the surplus 2-meter vacuum tubes made available by the telephone company's change of operating equipment proved to outperform the 20-meter tubes during the 1965 blackout. The group was impressed enough to pool their money and install a 2-meter repeater; thus, LIMARC was born.

At that point, the serious-minded nucleus, which included Ed and Ann Pores (WA2ZBV and WB2URP respectively) as well as Harry Dannals, W2HD (then W2TUK) stepped up its activities, attracting new members.

Today, those who do not discover LIMARC through its repeaters are attracted to the club in other ways. Members annually provide communications for the 26-mile Long Island Marathon, positioning themselves along the course in such a way that each volunteer with his radio can see the other volunteers nearby. Thus, any runner in trouble can obtain immediate help.

In a similar way, LIMARC provides communications during boating events such as Op Sail. When scouting encampments began drawing crowds of 9,000 or more, LIMARC volunteered to pepper the crowd with operators ready to report any need for assistance.

On the road, motorists call emergency situations to home monitors (someone is always on duty), who call the police in the designated area. In bad weather, club members help each other by identifying best and worst routes. Others who are not so lucky can get into trouble. When 500 motorists were stranded during a snowstorm, LIMARC members maneuvered through painstakingly-identified navigable roads to get to them and let them call their homes by mobile radio phone patch.

Other public service activities include work with the Coast Guard, Civil Defense and Civil Air Patrol, as well as provision of classes for people seeking to obtain or upgrade an Amateur Radio license.

Some of the club's activities are member-oriented. A weekly net is held on the air, as are weekly specialized nets — one on ways to save energy; another for code practice; one on a variety of practical technical subjects, including automotive maintenance.

Jay Rosensweig, N2FP (left) receives a certificate of appreciation from President Hank Wener, WB2ALW at the LIMARC designated "N2FP Day."

A monthly publication, the *LIMARC Log*, is put out by the club. Heywood "Woody" Gerstner, WB2IAP edits the 20-page paper to which other members contribute.

In the summer, a social picnic is held at a lakeside park. This event — motivated by Jay Rosensweig, N2FP (formerly WA2APJ), who motivates much of what LIMARC does — includes a "mini-marathon" and an awards ceremony. In the fall, a bowling party and dinner/dance are held, at which trophies are handed out for various achievements — some of them humorous.

Twice a year LIMARC holds Long Island's largest hamfest, attracting thousands and replenishing the club's coffers. LIMARC is a non-profit organization (an achievement of accountant Bob Cheskes, K2UDT).

Several special interest groups exist within the club. Jay Rosensweig, N2FP heads the computer club, which meets separately after each monthly general meeting, as well as at impromptu times.

One member, Steve Mendelsohn, WA2DHF — an engineer at CBS radio — helped LIMARC obtain spots on commercial radio to promote the hobby of Amateur Radio. This led to the "Wide World of Amateur Radio" spots on 55 syndicated stations.

Several other progressive projects have originated at LIMARC. Irwin Dresner, W2TRP heads a mobile ATV group, and Ed Piller, W2KPQ has launched an ambitious operation called "communicasting," which operates ATV between schools and outside community groups.

Old-fashioned "bunny hunts" still happen at LIMARC, too. "That's one reason I joined the club," says Ed Mentz, K2LCK.

Field Day is a big event. Members camp out on a chosen field, and operate all bands around the clock. Logging is sorted out by computer, and food is brought by a member who runs a delicatessen. Young people like Neil Newman, KA2CAF obtain valuable experience here and improve their code speeds.

"LIMARC gets a higher percentage of active members than most clubs," says Bob Van Son, K2VUH. "The usual is around 10 percent. LIMARC gets 25 to 30 percent." For a club of 600 people, that's a lot of participation.

"Amateurs pioneer things," says Ken Denston, WB2RYC. "Other hobbies don't make breakthroughs like Amateur Radio. What hams do becomes the 'thing' later."

"There aren't too many technical dummies in Amateur Radio," says Ruth Marcel, WA2FCO. "A ham license is a passport into a brotherhood. They're a great bunch of people."

You can find them at LIMARC. □

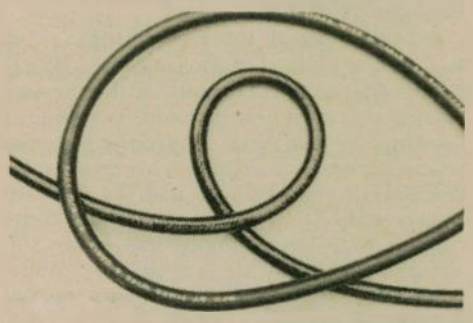
Coaxial cable

Let's pick up where we left off last month and focus on coaxial cable. Before we get into Amateur Radio marine applications of coax, let's first review some coax cable basics.

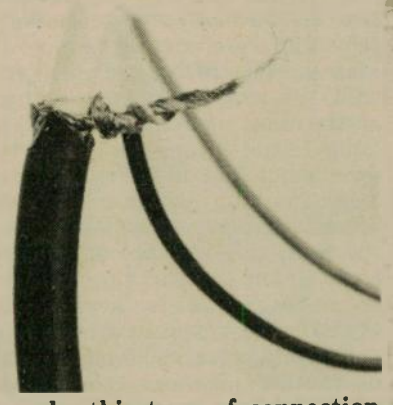
Coaxial cable is the carrier of your radio signal from your radio to the antenna, and from the antenna back down to your radio. Coaxial cable consists of a copper center conductor, solid or stranded, and comparatively small in diameter, around which is a very heavy insulation called the dielectric. Surrounding the dielectric is a form of copper tube completely surrounding the center copper wire and dielectric — hence the term "coaxial." The nice thing about coaxial cable is little interference can affect your receiving, as well as little interference can leak out when you transmit. Coaxial cable is also protected from the weather with an outside jacket that covers the outside copper "tube" that surrounds the inside conductor.

Coaxial cable is identified by certain "RG" legends. Here's what they mean: R means radio frequency; G means government; 8 is the number assigned to the government approval; U means it is a universal specification.

Types not marked RG are primarily intended for use where application is not meant by some government type. Some coaxial cables have government type numbers, and others don't. This does not necessarily mean that one is better than another.



No, flexible cable is not always best.



Never make this type of connection.

Attenuation

Attenuation is loss of power in decibels; it is commonly written and spoken of as dB/100 feet at a specific frequency. As an example, RG-8A/U has a loss of 5.5dB at 100 feet at a frequency of 400 MHz. At ham HF frequencies, the attenuation is minimal.

Impedence

Impedence is a term expessing the ratio of voltage to currents in a cable of infinite length. In the case of coaxial cable, impedence is expressed in terms of "ohms." The coaxial cables generally fall into three main classes — 50 ohms, 75 ohms and 95 ohms impendence. For Amateur Radio use, 50 ohm impendence is what we are looking for. In TV coaxial cable runs, we are usually looking at 75 ohms impendence, not suitable for most ham installations.

Different dielectrics

The dielectric is the shielding and insulating barrier which prevents the loss of the signal from the conductor. The dielectric must be absolutely uniform in thickness between the conductor and the shield. The thickness of the dielectric will determine the distance between the center conductor and the shield. This distance is quite different for RG-8/U, RG-58/U, RG-59/U and RG-6/U. The dielectric is made of either foam or polyethelene, foam being the most desirable for home use, as the structure of the material contains air holes which offer more insulating value than a solid material. Polyethylene is best for marine use — "non-contaminating" coax.

Shield

The shield is the protective covering to prevent pick-up of unwanted signals or noise by the center conductor. The shield is usually made of braided copper or aluminum wire, or aluminum foil. For ham use, the shield is usually 80 to 95 percent copper braid. The less braid, the more leakage. Always insist on 95 percent copper braid.

If you want the very best, the very expensive foil shield is available. This gives you 100 percent coverage and is obtained by wrapping a flat continuous piece of foil around a dielectric. The overlap of the foil offers 100 percent coverage and the foil shield can be single or double.

Outside jacket

The outside jacket is the outer protective covering and is usually polyvinyl chloride (PVC). Normally, the plastic jacket will differ from the dielectric in that the dielectric will be polyethylene. The reason is that polyethylene and polyvinyl chloride are not compatible and will not bond together, which will enable you to easily strip off the jacket when you are ready to solder on the conductor.

Cable types for marine use

Let's start with the very smallest coax, RG-58/U. Only use this small cable in marine applications for short jumpers. Its small size may rob you of valuable power if you try and run any more than just a few feet of this type of cable. It may have been fine for CB back in the good old days, but in Amateur Radio use, make RG-58/U your last choice except for 1-foot jumpers.

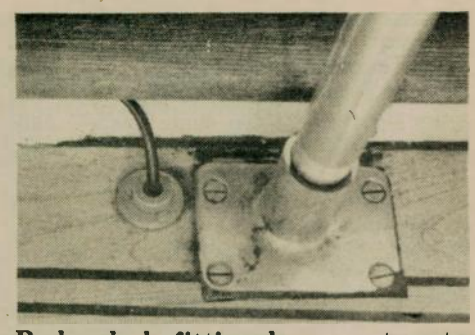
RG-8/X

The next size cable up from RG-58/U is called RG-8/X. Some may call it "mini 8." It's the cable that is easily recognized by its larger-than-the-small-stuff diameter, but smaller-than-the-big-stuff diameter! Its impedance is 52 ohms, and it is quite popular in marine applications. It's available in a myriad of colors — white, gray, black, and I have even seen it in brown!

This cable offers only a small amount of additional loss below RG-8/U — the big coax. It's easy to run, and it's a cinch to solder a coaxial connector, too. But wait — instead of using the small insert for your coaxial cable connector, you will need to specify, for RG-8/X, a UG-176/U insert for the slightly larger diameter of the cable jacket. You solder this cable exactly like the smaller RG-58/U.

RG-8/U

Always preferred for long coaxial cable runs is the large RG-8/U coaxial cable. This is considered "the big stuff," and handles like a cold garden hose when you try and run it. You will find that this larger cable offers minimum attenuation at high frequencies, and only a small amount of attenuation at very high frequencies. Whenever running up a mast, always try and choose the larger RG-8/U coaxial cable.



Perko deck fitting keeps out water from coax.

Different manufacturers assign different numbers for the RG-8/X and RG-8/U cables. For instance, Saxton calls their miniature RG-8/X cable #8315. Another manufacturer simply calls their larger coaxial cable RG-213 or RG-214, with corresponding numbers 8267 and 8268. In other words, you may have to ask for a certain type of cable, rather than go by the regular RG numbers!

For marine applications, always specify "non-contaminating" cable. This cable will minimize the capillary effect of seawater creeping into your coaxial cable and destroying the braid and inner conductor. "Foam" coax is really not recommended for marine applications. The tiny holes within the foam allow moisture to penetrate deep into the coaxial cable, ultimately destroying it.

Non-contaminating coaxial cable is characterized as not too flexible, and an extremely tough jacket (PVC), and a real healthy braid and center conductor. Non-contaminating cable is the only way to go in marine installations when using the larger cable. Unfortunately, non-contaminating coaxial cable is seldom available, to my knowledge, in the smaller RG-8/X format. Too bad. Whenever running the largest cable, always specify non-contaminating and pay the extra price for a weather-proof installation.

Connector "coax-sealed"

Weather proofing

I have inspected countless marine installations that have gone off the air due to moisture in the coaxial cable. The moisture almost always enters the cable at the exposed antenna connection. Black tape, silicone seal, and the like simply won't do the trick.

The best way to seal out moisture was discovered by my associate, Mark Sheppard, KA6TMD. He uses a gooey sub-

stance called Scotchkote™ electrical insulating compound. This stuff spreads like hot caramel candy. It sets up almost immediately into a semi-flexible non-sticky goo. Yes, it can be removed. No, water won't get in if you seal all connections carefully. It's better than regular marine silicone seal. It's the best for coaxial cable connectors and connections. Just don't drop it on your teak deck. Don't sniff it, don't swallow it and keep it off your hands. If you follow the directions carefully, this gooey goo will keep your coaxial cable free from seawater destruction. Coax-Seal™ is also a good way to go to keep out moisture.

Coax-Seal™ works well.

Scotchkote® electrical coating a must!

Another area of poor performance usually leads us to discovering soggy coaxial connectors at the antenna end. Once again, black tape simply won't do the trick. You must use this electrical gooey goo to seal out the moisture. I have "saved" many Amateur Radio marine installations by simply changing-out the coaxial cable assembly. You won't believe what the wonders of new coax properly sealed will do to improve a signal that has decayed over the years.

We tested them

Next month we are going to give you the results of several new items on the market that we have tested for maritime mobile applications. We'll also have a listing of all marine nets.

We have some very nice comments on the relatively new Heil equalization microphones for marine mobile use. They also have a microphone equalizer for your present mike set-up, in case you don't want to part with your favorite "lollipop."

We also have some very nice comments on the new Advanced Electronic Applications (AEA) basic Morse code trainer Model BT-1. This little gadget is a great way to practice the code, especially at slow speeds with fast characters. We also evaluated their new half-wave "Hot-Rod™" telescopic whip for 2-meter hand-

An installation that will stay dry

helds, and this baby really works . . . it was *twice* as strong as competition telescopic whips!

We also have a nice review of those new personal communicators. You know, those are the new devices that strap on your belt and are voice-activated at 49 MHz. Well, there is something new — now they are full duplex without a VOX circuit. That's right, talk and listen high atop the tower to the fellow down below reading the SWR meter as you adjust your beam, or mount your new masthead antenna.

We also have a review of the Signal Engineering 40-meter mobile antenna and their new 40-meter beam antenna. Some very nice performance from this unique antenna, and we see some definite maritime mobile applications.

We are still working with the manufacturers of that new triband fiberglass whip. These fellows are getting close to having available for Amateur Radio mariners a single whip that resonates — without a tuner — on 10, 15, 20 and 40 meters. I guess we will call it a quad-band whip. It's about 14 feet long, and everything is on the inside of the fiberglass whip. Initial evaluations indicate it's good on performance, but its frequency stability is still a bit *un*stable. I think they have it all figured out, and I will let you know as soon as this antenna is ready for production.

That's it for this month. Thanks for your many letters and phone calls. The response to my new $39 stereo tape course for beginners has been overwhelming. Drop me a line at 2414 College Dr., Costa Mesa, CA 92626 if you care to see all of the other stereo tape courses we have to offer for mariners.

Good cruising, and stay out of the storms. □

Indian ship crew rescued by CG

Submitted by John Tiernan, KA6LNC

Morse code played a crucial role in the rescue of 60 crew members from a sinking Indian freighter on 15 December. The crew had abandoned the *Jalamorari* just as a merchant ship came into sight to rescue them, 700 miles west of Coos Bay, Oregon.

The 460-foot merchant ship, the *Timur Girl*, was bound for Vancouver, British Columbia to pick up fruit when it responded immediately to the Coast Guard's call for aid.

The Indian freighter, tossing in 60 mph winds and 15-foot seas with water pouring into two holds, communicated in Morse code with the *Timur Girl* because of language difficulties, Coast Guard spokesman Dale Miller said, but even that was difficult.

"They were using the same language (Morse code), but different people speak the same language differently," he said.
—*Information from AP* □

Book Review

Mariners Guide to Single Sideband

Gordon West, WB6NOA

Mariners Guide to Single Sideband, by Frederick Graves, for Stephens Engineering Associates, Inc.

If you are like most mariners, you really don't care about the intricacies of your marine radio telephone, or why radio waves sometimes don't go where you want them to. You probably just want to pick up the mike and be heard loud and clear by the other station.

This makes sense. Let's face it, worldwide marine radio-telephones — single sideband marine sets — are very complicated. For their price tag, they should work every time. Right?

Maybe not. The best single sideband marine radiotelephone requires the proper ionospheric conditions for the radio waves to bounce back to earth. You also need a good installation, and this means a nice tall antenna and a whopping ground. That's right, your seawater connection is very important for good single sideband range.

Then there is the choice of which channels to plug into your set, or dial up. There are literally hundreds to choose from for worldwide ship-to-ship and ship-to-shore communications.

Mariners Guide to Single Sideband is a brand new 100-page book that talks about the technicalities of radio range and installations in an easy-to-follow format. Nothing technical! Easy-to-understand plain language. Plenty of charts, cartoons and diagrams.

If you want to know how to place a call, or to install your radio, or how to lay out a good ground system for maximum range, *Mariners Guide to Single Sideband* tells all.

Besides the important technical information, there are over 60 pages of valuable frequencies for worldwide communications. The frequencies are listed by ITU designators, by where you are located, by the service you are seeking, with cross

references galore. If you are going to the Antarctic, they tell you what frequencies to call on when you are ready to step ashore. Cruising to Australia? Plenty of frequencies for telephone down there. Want a list of all the frequencies for the United States telephone companies? They are in this book, too.

If you have a single sideband aboard, or are planning on a single sideband set, *Mariners Guide to Single Sideband* is worth reading. The book is published by one of the nation's large manufacturers of synthesized marine single sideband sets, Stephens Engineering Associates.

The author, Fred Graves, is a well-respected mariner, navigator, and an Amateur Radio communicator. He knows his stuff well and has done a good job in saying it like it is for mariners to learn about sideband.

For your own copy of this book, write Stephens Engineering Associates, Inc., 7030-220th SW, Mountlake Terrace, WA 98043. $9.95, plus $2 for postage. □

Shown here are several Coast Guard members. From left to right, they are: (standing) Henry Gilbertson; Lloyd Harwood, WB6ULU; Robert Buck, W7IZU; Wayland Hoyt, W6RAR; (sitting) Betty Macmillan, KA6IIT; Mary Lou Thompson, KA6SQY.

U.S. Coast Guard Auxiliary provides public service

Betty Macmillan, KA6IIT

U.S. Coast Guard Auxiliary members from California and Nevada had a booth at SAROC, Las Vegas, Nevada, 14-16 January. The booth provided information on safe boating and recruitment of new members interested in becoming communicators for search and rescue of boats at sea.

The U.S. Coast Guard Auxiliary was enacted by Congress in 1941 as a civilian non-military organization to assist the U.S. Coast Guard. These volunteers have a national membership of over 44,000. The vessels, aircraft and radio stations used are proudly owned by the membership.

Flotilla 24 members of Newport Beach, California are almost all Amateur Radio operators; they volunteer their services as communicators for their vessels and planes on duty and on weekends and holidays, year-round. For the past two-and-a-half years, they have been active in setting up a network of RDF (radio direction-finding) aircraft radio stations in Southern California. These stations are manned on weekends and holidays by Coast Guard Auxiliary communicators.

The Auxiliary, in conjunction with the Coast Guard, has established a repeater network in Southern California communities. This network is being used for the purpose of membership training, Auxiliary administrative functions, and to supplement air and sea rescue operations.

The Coast Guard Auxiliary provides courtesy vessel examinations for the safety of the boating public. Safe boating classes are given by trained Coast Guard Auxiliary instructors at various locations throughout the year — a public service indeed! □

Lives saved with aid of Amateur Radio

Carol Grunewald
Submitted by Pete Kemp, KA1KD

The story had a happy ending, but it could easily have ended tragically for four young fishermen whose boat capsized in rough waters off Shippan Point, Connecticut on the night of Monday, 30 August.

Stamford Marine Policy were off duty and sitting at home when a call came into police headquarters at 8:46 p.m. that several people were drowning off Shippan Point. Three civilian boaters overheard the police call via Amateur Radio and dashed out on a commandeered boat, rescuing the men at least 15 minutes before the Marine Police arrived on the scene, according to witnesses.

Two of the three rescuers were amateurs — Dick Peaston, WA1TDC and Dick Roosevelt, K1DR. The third was Carl Grazioso. WA1TDC and K1DR are former members of the Coast Guard Auxiliary in Stamford.

—The Advocate, Stamford, CT □

Westlink — news service for amateurs

This is the second in a series of six articles about the history and function of Westlink Radio Network — a worldwide "on-the-air" news service started in 1977 by Jim Hendershot, WA6VQP and Bill Pasternak, WA6ITF. Bill — the author of the series — is currently producer of the Los Angeles, California network.

As word of what he was doing spread, Jim began to receive requests for copies of the weekly tape from all over the country. In less than a year, things had grown to a point where the duplication of cassettes on a one-by-one basis was taking the majority of Jim's free time, which was little to start with.

It was during that era that Jim started his first company — a repeater manufacturing firm called J-B-W Electronics. Their specialty and only product was a top-of-the-line 220 MHz amateur repeater. In addition to this company, Jim had the responsibililty of researching, writing, producing, voicing and distributing the newscast. He continued this until two weeks prior to his wedding, when he asked if I would take on the chore for about a month. I approached two friends for help. Their names now familiar in Amateur Radio circles, but relatively unknown back then. One was my close friend, Bill Orenstein (then KH6IAF, now KH6QX) and the other — Alan Kaul, W6RCL.

At that time, Alan was a newswriter for the NBC TV network in Burbank. With Alan doing part of the writing and providing his voice talent, Bill doing the job of engineer and yours truly producing, we did a month's worth of newscasts.

Less than a month after his return, Jim called to tell me he was in the process of relocating to central California and asked if I wanted to take over the Westlink News Service. I conferred with Bill and Alan. Both agreed to help, so I said yes, providing that some way other than the cassette exchange method of dissemination could be found. Jim provided the answer in the form of a pair of ancient but usable broadcast cart machines that had been donated by Jay O'Brien, W6GO several months earlier. Jim had planned to use them in production, but by adding a simple circuit, they could be used to trigger from a phone line and provide an automatic feed to the caller. In Jim's last newscast — before turning the reins over to us — he announced he was leaving. He said a newly-formed Westlink news team was taking over, and that those wanting to get the newscast in the future would have to call an L.A. (Los Angeles) phone number.

Everything had been planned for a smooth transition. It may have seemed smooth to listeners, but it was far from that for us. A few days prior to our scheduled release, Alan received an emergency call that took him out of town for two weeks. Neither Bill nor I are "air talent types," but Bill pulled out his magic phone book and voila . . . we were in his car headed toward a friend of his — a non-ham but a true "pro" in the broadcast field. Some of you may recognize the name Zeke Manners. It was Zeke who anchored that "second" first Westlink newscast. Unfortunately, Zeke would not be available the following week. Fortunately, Alan was back, and the three of us began the work of revamping the overall format. It took about six weeks of experimentation, but we finally determined a number of things.

First, the optimum time line (running time) for such a QST had to be no more than 10 minutes to hold listener interest. Second, including the voices of the newsmakers themselves made the newscast far more interesting than that of a single "talking head." Finally, it had to be as fast-paced as possible so as to give us the ability to cover as many topics in the 10 minutes as possible. This boiled down to "tight" scripts and even "tighter"

editing. For Bill and myself, it soon began to take up the majority of our free time. Neither of us complained. We were doing something both of us loved.

The next person to "join up" with the all volunteer Westlink news corps was Burt Hicks, WB6MQV. Burt, a broadcast engineer/cameraman at Metrotape in L.A., had prior on-air news experience in AFRTS (Armed Forces Radio & Television Service). Since Alan's job took him on the road from time to time, Burt began by filling in for W6RCL, but soon became one of our two anchors.

That same summer, Jim Davis, KU8R — a friend who goes back to the early days of FM in New York City — moved to L.A. to become program director for KMPC radio. Jim got involved quite by accident as one of our anchors. Burt was hoarse, Alan was out of town, and Jim made the "mistake" of calling on a Wednesday evening to let me know he had arrived in town. Thursday evening he found himself in front of a Westlink microphone. He has recorded over 120 of the newscasts since. In the process, Jim Davis has been dubbed as "The Voice of Westlink" by the amateur community. Although he is no longer in Los Angeles, having become general manager of WVAF radio in Charleston, West Virginia, he is still an active member of the Westlink news team, recording at least one newscast a month from his new location.

When you consider that none of us are paid for what we do — in fact, we have to cover many of the expenses out of pocket — I can only consider what Jim, Alan and Bill do as being in the realm of true dedication. The same holds true for many others around the nation and worldwide who have "come on board" as volunteer correspondents.

Today we have reporters throughout the USA, as well as overseas. In fact, it was a Westlink reporter attending the recent Amateur Radio convention in Germany who was able to get an exclusive interview with Wojciech Nietyksza, SP5FM of Poland to find out that Amateur Radio may soon be permitted again in that nation. The reporter is Mitch Wolfson, formerly WA6GSN and now DJ0QN. It was a "by chance" happening, but Mitch and his recorder were able to get the first word of Amateur Radio from SP-land since the military crackdown of 1981.

(Continued next month) □

·Silent Keys·

D. Cason Mast

An almost countless number of amateurs throughout the country will share our regret in the passing of D. Cason Mast, W6SW of Ontario, California.

Cason had been devoted to Amateur Radio for 60 years when he became a Silent Key on 18 January at age 80. He operated mainly on CW and was known for his distinctive sending with a "sideswiper" key.

"Shortwaves," as he was known to his friends on the air, possessed all of those qualities which are highly regarded in Amateur Radio. He was a superb operator, he often made and repaired equipment for his shack, and he was always glad to help a beginner get his license and set up a station. (Your correspondent is one of those grateful souls.)

Cason started in radio at Nacodoches, Texas in 1923 after graduating from college. He subsequently lived at Bisbee, Arizona for several years, and in 1933 set up his home and station at Ontario. He served as QSL manager for the 6th District for a time, and also was active in radio organizations. In 1973, he received the Quarter Century Wireless Association Golden Anniversary Award as a distinguished member operating with calls ranging from 5TO to W6SW. He also held a life membership in the Tri-County Amateur Radio Association, with headquarters in Pomona, California.

Cason's wife, Selma, who survives him, always supported his hobby in every way — an asset which every married ham can appreciate. — *Submitted by Roy Elliott, WA6KPY* □

James D. Guest

The purpose of this letter is to bring to your attention the death of my father, James D. "Jack" Guest, W5AJZ. He died 4 January 1983 at the age of 73, following a brief illness. He is survived by his XYL, Florence W5NCH, myself and one grandson.

Dad was licensed in 1926 when the "W" was not used, so he was originally on the air as 5AJZ at the age of 17. He was active in Amateur Radio essentially all of his life. He helped many people become amateurs, particularly many years ago when such help was so important to the hobby.

In 1957 he founded Hornet Antenna Products Company, and he served as president until recently. His desire to produce high-quality, modestly priced antennas for many amateurs became a reality and a great satisfaction to him in the years that followed. In particular, his Hornet triband antennas were extremely popular, and many are still in use. The fact that so many customers became friends and acquaintances through "contacts" or correspondence was very important to him. — *Submitted by Robert Jack Guest, K5JLP* □

WHEN PURCHASING GOODS,
SAY YOU SAW IT ADVERTISED
IN WORLDRADIO.

TEACHER

Alan Kline, KB1DJ

In the middle 1950's, I discovered Amateur Radio. First it was a relative's shack discovered while on a holiday visit. Then it was listening to the local amateurs on the 80-meter AM phone band on the family's old Atwater-Kent. But no ham license for me.

In the middle 1960's, there was a Novice station at the high school I attended. I got to substitute basic electronics for the traditional woodshop requirement and quickly learned that electronics and communications were for me. But the rest of the kids in the class were into the CB craze, so there wasn't enough interest for the instructor to pursue Amateur Radio with just me. Again, no license.

The middle 1970's came with the answer to the American Dream — family, house, cars and a secure job. My interest in Amateur Radio was still there — enough to attend a regional ARRL convention and realize what I had been missing. I decided it was now or never to get that elusive ham ticket.

At the time, my job security meant working six days a week, including Saturday afternoons. The only local ham code and theory class was being held in a town 10 miles away on — you guessed it — Saturday afternoons. My boss wasn't too happy about the two times I closed up our store early to attend class. I was forced to drop out and seek an Elmer for help.

I wasn't bold enough to walk over to a neighbor's house that had a tower with a quad antenna on it. So I bought a copy of the Callbook and made a list of all the amateurs in my hometown. At that time, there were only 12, four of which were active. I sent a letter to all 12, literally begging for code help. I offered to pay $5 per hour as compensation for tutoring me on the code. I knew no amateur would accept the money, but hoped they would sense my desperation.

Five amateurs called to offer their help. One neighbor that I didn't know was licensed, stopped by to chat about my plight. He needed a partner to study the code and theory with so he could upgrade to Extra. Within a few short months, we were off to the Boston FCC office. He easily passed his Extra, and I barely passed the 5 wpm code requirement. I very confidently passed the theory parts.

I went on the Novice portions of the low bands immediately. I was bored on CW, so FM followed, then 6-meter SSB. I never really experienced the pleasure of CW or being a Novice. I had been caught up in the rut of Technician Class.

Also, like many of you, I joined the local repeater club and became a regular during the commuting hours. At my job, I had to go to the post office every morning to pick up the company's mail. I would meet the repeater's club secretary there and we would discuss the club's activities. I knew I wanted to get active in the running of the club, so I asked him what I might try. He explained that the ARRL was pushing the local clubs into having Amateur Radio code and theory classes to build up the United States ham population before going to the WARC (World Administrative Radio Council) conference of 1979.

I was hooked, but didn't know it yet. I figured that since it hadn't been easy for me to get my license, maybe I could make it easy for others to get theirs. I had had extensive marketing experience at work and was a retail salesman by profession, so I figured that all I had to do was market Amateur Radio as a product, then sell or teach it to the students.

That was the winter of 1977. Our first class had 32 students and four instructors. We charged $25 per student and lasted 12 weeks. We graduated 22 Novices, five Generals and two of the instructors were inspired enough to upgrade to Extra Class. I was so happy, I immediately set out to run a class again the next school year.

Money was collected from the students, since the rooms we used had to be paid for. We owned no textbooks or teaching aids. I knew I had a lot of work cut out for me. Soon we would be teaching four classes in three towns, handling about $600 per class, and looking for more amateurs to volunteer their time. I quickly requested the repeater make me the educational chairman and asked for their 100 percent support.

Since 1977, we have had 10 different instructors, over 350 students, have taught in five locations, and have had to demonstrate Amateur Radio in all types of environments. I have been keeping notes of my and my instructors' activities. Our only goal has been to help as many people as possible to become amateurs.

In the coming months, I am going to share with you some of the experiences we have had in teaching Amateur Radio. I am going to write about why I organize classes; why some instructors will teach only one class and why others will teach for years; how to get young people interested in Amateur Radio; and how to have your club PR person help you by putting out the word about your classes.

When I first started to teach, I did most of the work, but as the program got larger, I needed the help of many club members in order to continue classes.

We are in a period of change for Amateur Radio, and the hobby's destiny lies within our instructors. If we all pull together and help out, just a little, maybe Amateur Radio will go back into a growth mode. □

Volunteer

(continued from page 1)

consisting of a chief holding the amateur Extra Class license and two members holding either Advanced or Extra Class licenses. All three team members for an amateur Extra exam would hold that class. Telegraphy exams above the Novice level would be given by an Extra Class licensee.

No amateur owning a significant interest in or employed by a manufacturer or distributor of amateur station equipment or a publisher or distributor of a publication used in preparation for obtaining amateur licenses could be an examiner. An examiner could not be under 18 or related to any of the license candidates.

As proposed by the Commission, one or more national "umbrella" entities would be established to coordinate the efforts of volunteer examiners. The FCC anticipated that such organizations would coordinate and publicize dates, times and places for examinations. Candidates would be required to present completed application forms.

The examination team would certify and forward applications of successful candidates. Exam team chiefs would maintain files of test papers and pertinent information.

Interim amateur permits would be issued to successful candidates, immediately entitling them to operate their stations for up to 90 days with the privileges and limits of the new, higher license class.

In October 1982, the FCC proposed to amend its rules so that volunteer licensees of General Class or above who now prepare and administer slow-speed Morse code tests to Novice Class license candidates also would prepare written exams for the Novice license, based on the appropriate syllabus in the Study Guide, and conduct and grade them (PR Docket No. 82-727). That proposal would not be changed by the current action.

Action by the Commission 20 January 1983, by Notice of Proposed Rulemaking (FCC 83-22). Commissioners Fowler (Chairman), Quello, Jones, Dawson, Rivera and Sharp.

The deadline date for comments is 8 April. Reply comments due by 9 May. □

Sharing some letters

I thought I would share some letters with you, seeing as how we are just in the process of putting together our year-end reports. You know, sometimes we take this hobby of Amateur Radio real personal, thinking of our own equipment, our own accomplishments, our own skills. We don't often think of anyone else, except perhaps the guy on the other end of a QSO. Here are some examples of what Amateur Radio means to people . . . next time you're in a QSO, you might want to remember some of these letters. It might give you a great big, neat feeling inside!

Dear Staff,

With Thanksgiving close by, I think it's time for all of us to count our blessings and thank God for so many plus factors in this troubled world.

And so — in my prayers — I thank God for the great staff of HANDI-HAM Courage Center. I am so grateful for your vision, patience, support and your ability to help so many people and enrich their lives as you did for my son. — *M.S., New York*

Dear HANDI-HAMS,

As you must know, when someone's world is limited by multiple handicaps, anything they do to add to that world becomes very exciting. Lately, I've been taking Don out with my two boys when we have a "boys' night out." Don and I went to the local radio store and we had a great time dreaming about the rigs.

Last night we all went to a local amusement park for a picnic dinner and walk. In talking to him, I find that his family has abandoned him, and we have become his family. I have cried about the thought that he has never seen his grandchildren and not even his new great-grandson. I asked my boys — ages 5 and 8 — if they wanted to "adopt" him as another great-grandfather and they were very happy.

The reason I feel I should tell you all this is because before Don and the HANDI-HAMS, I was a cold-hearted S.O.B. who cared very little for others. Every time I do something for Don, I feel so great. I truly believe he has made a great impact on my young sons. For this, I will always be grateful to the System. — *A.K., Massachusetts*

"This program has recently motivated me out of a severe depression resulting from post-polio complications and also from recent open heart surgery. I am now able to participate in local gatherings of the radio association and have a ready helper." — *J.F., Michigan*

Dear HANDI-HAMS,

I started communicating with HANDI-HAMS while I was in a nursing home. I was bored and was, simply, seeking something exciting to do. I found it! It has kept me from mentally climbing the walls. — *M.C., Florida*

These are but a few of the many letters we receive from handicapped radio amateurs all through the year. The next person *YOU* talk to on the air might just be one of these people. What a tremendous boost *YOU* will give them! □

Contact Worldradio for hamfest prizes.

But you don't *sound* disabled?

Per Holking, SM0HEP — of Stockholm, Sweden — got a lesson in what the HANDI-HAM System is all about when he met a DX contact face to face. Per, age 27, has been an amateur since 1976. He got started on 2 meters, but upgraded pretty fast and got his CW ticket in 1978.

Per is an electronics technician for Stockholm Radio, an organization which handles emergency traffic and phone patches for ships in the Baltic Sea and aircraft companies in the area.

While Per was in Sweden, he made a CW contact with HANDI-HAM member James Beck, KA0FXA of Virginia, Minnesota. While he was visiting in this part of the country, he decided to look up Jim and was surprised to learn that Jim uses a Puff-and-Sip keyer.

"Here I thought he was sending the usual way," Per said. Per tried his skill on the Puff-and-Sip demonstrator during a visit to HANDI-HAM headquarters and was impressed by what an equalizer the device is on the airways.

—*HANDI-HAM World* □

TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

Short time

Armond Brattland, K6EA — who for several years contributed the Novice column to this illustrious journal — writes to say, "I've heard it from quite a few, the reason why they don't check into traffic nets is because they 'get stuck' there and hate to seem to be 'in a hurry.' "

I can appreciate that feeling very well. Many a time I have about five minutes left before I must leave and am waiting for the net control station to send me off to clear my last traffic when one thing and another happens to delay the net.

Someone checks in, has to send the net control's call three or four times before getting it right (when it's not necessary to send it at all), adds a long greeting, and takes twice as long as necessary to list the traffic: "QTC for CALIFOL. . . . . CARI . . . . . CALIFORNIW . . . . . CALIFORNIA 2 plus book of four." Then net control asks, "So it's four for California?" "No, two singles plus a book of four." "A book of four counts the same as two messages, so your total is four." And all this is about 12 words per minute, and I'm sitting chewing my nails as I watch the second hand go round and round. Often it makes the last trip and I must leave, and many times without even telling the net control station that I'm leaving because there's just no opportunity.

There are two lessons to be learned from this — one for the operator with limited time, the other for everyone else on the net, and for net control stations in particular.

First, if your time is limited, check into the net anyway, but tell net control that you are on short time as you check in. It happens all the time on the Early Bird Net, which meets on the East Coast at 6:00 a.m. Eastern time on 3715 kHz every morning. Most people who are up at that hour are up by necessity rather than by choice, so limited time is the rule and not the exception. Stations tell net control "short time," "20 min.," "out at 6:30," and the net control station sees that these stations are cleared first. If you don't say anything, however, the control operator will assume that you are willing to wait.

Amateur Radio is a sideline in our lives and for most of us, has to be fitted in around other activities, so it's unrealistic to expect everybody on a net to check in at the beginning and stay to the end. But tell the net control you are on short time when that is the case; otherwise, blame only yourself if you find yourself stuck.

The other lesson is for the rest of us on the net, and the net control operator in particular. Bear in mind that there are a dozen or so others on the net, and some may be on short time, so keep things moving. A ragchew net, where the whole purpose of the net is conversation, is not so limited. In such a net, people check in and out as they please. A traffic net, on the contrary, exists to move traffic, and stations check in to send and receive traffic, and when the traffic has been passed, the net closes. Or perhaps changes into a ragchew net, but then it's no longer a traffic net.

Here are some time-wasters: Unnecessary identification; we are no longer required to transmit the call sign of the other station unless we are handling international third-party traffic. Not listening to what is happening, so when net control says give traffic to another station on some specified frequency, we aren't listening and the directions have to be repeated. We should ideally be following closely enough that we can anticipate net control's instructions most of the time, already knowing who should receive the traffic we have listed and on what frequency. Sending too fast, so that we have to correct ourselves every other word, and the receiving station needs a lot of fills. Running back to net when we find the spot where we are supposed to pass traffic already occupied, instead of looking around for a clear spot. Running back to net when finished handling traffic on another frequency without first listening to see if someone else is calling.

Net control operators can expedite things by trying to keep as many people busy as possible at any given time. Usually this means clearing people with shorter lists first so that they can be excused from the net. If a station has a large number of messages for various destinations, pick a frequency and send the other stations one after another to pick up their traffic there. Make frequent net calls to allow stations returning to check back, anybody who did not make contact to report the problem, and to allow additional stations to check in (calling them "additional stations" rather than "late stations" is good psychology). And excuse stations early in the net for whom there is no traffic.

It should be understood that being excused from the net is not synonymous with being told to leave. If you are excused from the net and have nothing else urgent to do, and have something you want to do in the station, leave the rig operating. Many times I've heard someone come in after I've been excused who has traffic I can handle. You'll endear yourself to the net control operator on such occasions by announcing that you're still around. All QNX means is that you may leave, not that you must.

SET suggestions

Don Simon, NI6A, East Bay Section Traffic Manager, sent another batch of notes generated by the California NTS/ARES discussion group in their 8:00 p.m. local time meetings on 3907 kHz the last Thursday of each month. Much of it concerns a topic discussed in the past two columns — that NTS is not really set up to handle emergency communications and what to do about it. But that had better wait for another time, or readers may think there's nothing else to talk about if it appears again this month.

The group came up with something else, however, that may be of interest to readers — a different plan for the Simulated Emergency Test (SET). It works like this:

The ARRL Communications Department will set the dates well in advance, as it does now. But the Communications Department will also select the type of disaster and the area affected for each SET, a different kind of disaster in a different area each time, and will *not* announce the selection in advance. Examples: San Francisco earthquake, Gulf Coast or East Coast hurricane, Ohio River flooding involving several states.

A few hours before the announced start of the SET, W1AW will begin sending SET bulletins at its regular emergency bulletin times (phone on the hour, RTTY at 15 minutes past the hour, CW on the half hour). These bulletins will outline the nature of the disaster, and will be updated as the test progresses.

Those in the designated disaster areas will proceed with their plans for such an event, in accordance with the outline given in the bulletin. Those near the disaster area will activate an alert for requests for assistance from the disaster area. Those in other parts of the country will conduct local SET exercises but will not involve NTS nets above the section level.

NTS managers will set up special schedules as required to handle traffic for the test disaster area, and stations anywhere will be invited to originate test welfare messages into that area.

This plan looks interesting. It would be more realistic and would tend to encourage all to more preparedness. It would add the element of surprise which is inherent in any real emergency. And it would not overload the National Traffic System unduly.

Probably ARRL would ask emergency corps personnel to develop projects for the large-scale emergency tests and submit them to headquarters, where the Communications Department would select the one to be used in any given SET. It might be practical if this form of SET is adopted to have several SETs a year, so that every part of the country would have one often enough to keep emergency communications skills alive.

This is but a brief condensation of what Don and his colleagues, Gordon Wenz, N6GW in particular, have developed. But I hope it's enough to stimulate discussion and thought along these lines.

Third-party traffic

Don Simon also had some words in the January issue of **Worldradio**, asking why the FCC is so restrictive about third-party traffic and suggesting that it may be to protect the revenues of Ma Bell. I doubt that this motive enters very strongly into the FCC's position, at least in this country.

The national administrations of other countries do indeed restrict amateurs for that reason, however. In most nations, radio is regulated by the Minister of Posts and Telegraphs, or some similar title, who has a vested interest in protecting the government-operated service from competition. The temptation is usually too great to take the line of least effort, to legislate competition out of existence rather than to provide such good service that competition can't compete.

We amateurs encounter the same thing in connection with radio-frequency interference. Rather than clean up their TV receivers, people want to put us off the air. It goes back to the early days of radio when the Navy wanted to put us off the air too. The early spark transmitters had no tuned circuits, so only one station could be on the air at a time, and the U.S. Navy felt that its station should be that one. The Marconi company, holder of the patent on the tuned circuit, argued successfully that to enact such a law would be to block progress; the proper solution was for the Navy to upgrade its equipment.

Unfortunately, in most nations the legislative shortcut has prevailed, and amateurs are forbidden to handle third-party traffic. The shortcut prevailed so much that the delegates to the international conference at Madrid in 1932 were able to have the prohibition against third-party traffic added to the International Radio Regulations, and it's still in force. The U.S. delegation was able only to obtain the addition of a paragraph allowing exceptions by mutual agreement between nations, of which we now have a couple dozen.

So it's not the FCC at all that is responsible for the prohibition; it's in the International Radio Regulations, which the FCC cannot change but must enforce.

As for the restrictions on third-party traffic within the United States, mainly the prohibition of business traffic, there are two reasons for its existence. As usually happens, there is some overkill: the prohibition forbids traffic that really harms nobody, but that's the way laws generally act.

The two reasons are: 1) to prevent the abuse of Amateur Radio by subversive groups, and 2) to protect our bands against invasion by commercial users.

The Jonestown episode that culminated in the mass suicide of cultists in Guyana was found to involve the use of Amateur

Radio to coordinate activities. The FCC didn't want that to happen again. And, particularly when Technician licenses did not require an examination by FCC personnel, it would have been easy for someone wanting to set up a commercial VHF system to use the amateur bands, thereby avoiding the stiffer requirements of commercial channels, the more expensive equipment, stricter licensing requirements. In short order, we could find our bands full of taxicab, plumber, builder, undertaker, you-name-it radio services — worse than 27 MHz.

For these reasons, the FCC felt that the prohibition of third-party business traffic was justified. It is true that there would be little risk of abuse in the case of formal traffic via NTS, business or otherwise, but as I said, some overkill is to be expected.

As for competition with Ma Bell, our available bands are far too narrow to allow us to handle more than an infinitesimal fraction of the hundreds of thousands of long-distance calls being made at any given moment in the United States and Canada. It is true that the FCC has expressed concern about our competition with the mobile telephone service, but with the development of cellular mobile phones we will soon be able to handle only an insignificant fraction of mobile calls.

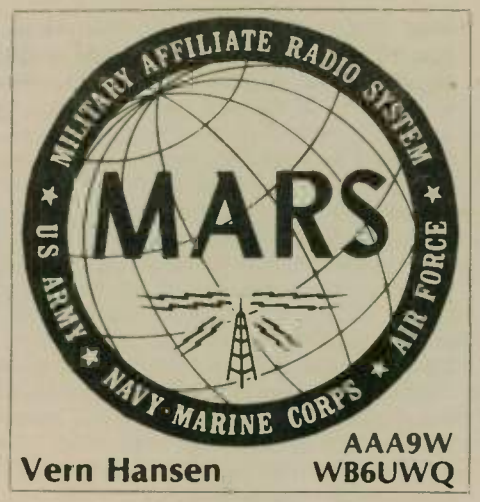
So really, the principal reason we are restricted in handling third-party traffic is to protect some government-owned systems in other countries that find it easier to legislate competition away than to compete.

This is not to say there is no possibility that we amateurs might be further restricted even in the United States from handling third-party traffic. Don points out that the FCC has expressed concern that widespread use of phone patches might jeopardize the large investment commercial carriers have in their equipment, and the commercial carriers certainly have no objection to Commissioners or FCC staffers who have such views. With 10 times as many AT&T stockholders as there are amateurs, it behooves us to be alert and ready to counter any moves in that direction.

Could the FCC leave the international third-party rules unenforced? Why not let the other countries that want the rules take action against their amateurs? It seems that the U.S. government, in general, believes in scrupulous observance and of enforcement of its treaty obligations. In the recent past, it has taken action against U.S. companies, for example, for palm-greasing in foreign countries where palm-greasing is the accepted way of doing business with officials. Perhaps, though, the time may be ripe for an effort on the part of the International Amateur Radio Union (IARU) to have the prohibition removed at the next conference. Its successes in 1979 seem to show that such organized effort can pay off. □

Seeing double?

If you should receive duplicate issues some month, and one of them has only your name, call and address, and no computer number, you have been selected to pass the extra copy on to a ham who may be interested in seeing the paper. Pass it on.



Vern Hansen AAA9W WB6UWQ

Goldwater's MARS station closes

A facility that brought many heartwarming experiences to Vietnam era service people and their families has ceased operation.

The Military Affiliate Radio System (MARS) station at the town of Paradise Valley, Arizona — home of Sen. Barry M. Goldwater, K7UGA — went off the air 15 January. The senator has been involved in Amateur Radio activities, as well as the MARS program, for many years.

In operation since the 1960's, Senator Goldwater's MARS station, AFC6BG, served as a "phone patch" relay point for many sevice people in Southeast Asia who talked to family and friends in the United States. With the reduction of "phone patch" traffic in the 1970's, the station became a radio teletype "gateway" station for the Pacific.

"I think all Americans can contribute to their country in some way," stated the senator when questioned about the origin of his MARS mission involvement. "You don't have to have a uniform on. You just have to have the desire to help."

Secretary of the Air Force Verne Orr, himself an Amateur Radio operator, sent a message to the senator via the MARS channels citing the service provided by the station.

"Operated exclusively by your dedicated volunteers, and at considerable personal expense to you, AFC6BG has provided the Department of Defense and the nation, in times of emergency, a service unparalleled in military communications. We all owe you and your people a tremendous debt of gratitude that can never be adequately repaid," stated part of Secretary Orr's message.

Among those attending closing ceremonies at the station was Maj. Gen. Robert F. McCarthy, commander of Air Force Communications Command, who referred to the historic value of the station's operation and patriotism of its operators as that "which will stand the test of time and will display to others the sense of commitment and dedication of the volunteers who have manned this station."

Maj. Gen. McCarthy presented plaques of appreciation to Senator Goldwater, Tom Moore — the station manager, and about a dozen volunteers who helped operate the station over recent years.

The decision to close the station was based on a combination of declining mission activity and the anticipated cost of modernizing the station's aging equipment.

Most of the morale/welfare family contacts previously handled by the station are now made over regular telephone voice circuits during non-duty hours. Balancing the current message flow of 30-40 per day against the anticipated cost of acquiring and maintaining modern equipment, the decision was made to delete the station's radio teletype message mission and convert the morale/welfare message function to voice circuits only.

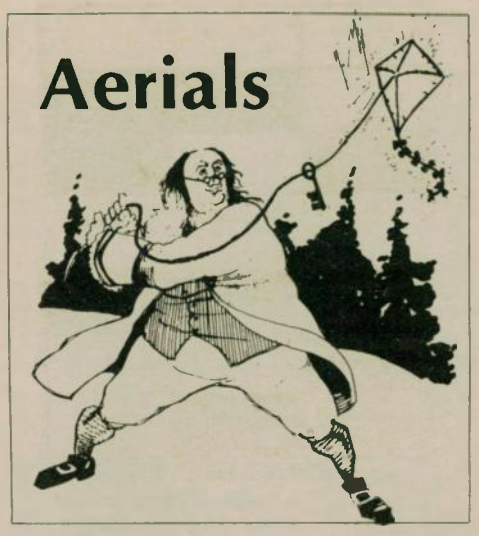
— *Command Post, O'Fallon, IL* □

Extra Class pair

Jeanne ND5J and Dick Stickley, KB5G can be added to the list of Extra Class couples. They live in Jasper, Arkansas. □

A great gift for your overseas amateur friend is a *Worldradio* subscription.

Aerials



Kurt N. Sterba

Incredible! Unbelievable! The following was in a national publication:

"I have always thought that antenna height didn't make that much difference after a quarter-wave off the ground, but the other day I was watching VE7BTO and ZS6DT ragchew (RTTY) while the South African station cranked up his tower to 100 feet. Yup, it does make a difference."

Baffling! How can someone spend many years in this fascinating avocation and not have learned the very basics?

The truth is, a quarter-wave off the ground isn't even a starting point! Good grief, what do people have against cracking a book or two? At ¼-wave above ground, the angle of radiation is practically straight up, and what goes straight up, comes down straight down. This is called going nowhere.

You've got to get up a half-wavelength to get a take-off angle of 30 degrees; one wavelength up and the angle gets down to 15 degrees.

The higher angle radiation makes more hops up and down between the earth and the ionosphere. Each time it hits the ground or the layer, there is absorption.

There is another factor. The high-angle signal will pierce the ionosphere and the low-angle signal will skitter along the roof of the layer.

Converting all this to practicality — on 20 meters the guy with an antenna 35 feet up (½-wave) will run circles around the guy 17 feet up (¼-wave), and the ham up 70 feet (1 WL) will work DX the 35-footer won't even hear.

Don't ever let anybody kid you that height isn't important. Going from 35 up to 50 will make a great deal of difference. You'll say, "How come all those people haven't been on the band before?"

The word amateur comes from "amator," for the love of it, which would make one think that people would learn as much about it as possible. Unfortunately, we do have our share of real bozos.

Recently, there was a major emergency. While most amateurs conducted themselves admirably, a few were buffoons. HF communications were necessary, and as high winds had knocked down the store-bought Yagis, there was a need to put up dipoles. Overheard on the repeater were the following remarks:

"I don't remember the formula for a dipole." "I can't put up a dipole; I don't have a balun." "Since the electricity is off, I can't solder the connections." "I don't have enough wire to make a 10-meter dipole."

Maybe those guys could go on television as *The Four Stooges.*

None of those guys will ever read my remarks because it's obvious they don't read anything anywhere. What they should do is voluntarily mail back their licenses to the FCC, or to the Crackerjack Company.

For the benefit of any 9-year-old reading this at the barber shop, or someone who has never heard of radio reading it at the dentist's office, here is the formula: Just remember 4-6-8, as in 2-4-6-8. Take the 468 and divide it by the frequency in megahertz or megacycles (the numbers around the bandswitch). Example: 468 divided by 14 equals 33.4 feet, or 468 divided by 7 means 66.8 feet.

Real hams will gain nothing from this column, but for any illiterates who might find themselves in an emergency situation, there is another system also. If you can't remember 468, try to burn "300" into your brain.

When you divide 300 by the frequency in MHz, you get meters. Multiply that answer by 39.37 (inches in a meter). Take that answer and you have the full-wavelength. Chop that in half, take off 5 percent, and you have the dipole length.

Remember, normally you cut the dipole in half and feed it in the middle.

As an aid, note that a meter is about 9 percent longer than a yard. Also, you can divide 300 by the wavelength and come up with the frequency (in MHz).

While we call the bands 80-40-20-15-10, that is really sort of a shorthand for what they really are. To be more precise, 3.5 MHz is 85.71 meters, 7.0 is 42.85 meters, 14 is 21.42 meters, 21 is 14.28 meters and 28 is 10.71 meters.

Now the actual truth of the matter is that if you put up something that is somewhat close to the right lengths and fed it with coax in the center and used a tuner, everything would be perfectly fine. In fact, you could be way off and the tuner would make it all right. (Of course, that has to be a tuner capable of handling coax-to-coax.)

Possibly a handy addition to the shack of those interested in emergency communications would be those little tuners for end-fed operation. You could build one from the parts of an old Command set.

An end-fed wire will work just great. Any kind of wire will be OK. Keep a couple of hundred feet of plain old electrical wire around — the kind that goes to lamps. It's easier to untangle and no one touching it is going to get zorched.

For those whose motto is "Be Prepared," mobile HF antennas can be stored. The price of an old Webster Bandspanner is low. Those who want to show some class could get a "Spider" from Multi-Band Antennas.

Possibly I should be less critical of the "I forgot the formula for the dipole" clod. For many years, the Handbook had a little table that showed the lengths for many spots in each band. It isn't there any more, but now that I think about it, anyone who can't remember the formula for a dipole probably doesn't have a Handbook, either.

Not to sound sexist or take a cheap shot by saying, "Ahhh, my wife knows more about antennas than those four dodos," but it's true! And she will be writing this column next month.

The Grrrr Dept. Someone wrote to me and asked, on behalf of a friend of his, for a special design antenna to suit a particular purpose. I spent a lot of time on it only to hear that the friend had disagreed with my dimensions. Gadzooks! Remember, the length for a full-wave loop is different than four times one-quarter wave or twice that of two times half-wave. There is about a 7 percent difference.

Forsooth, do not disagree with me until thou hast put it up and checked it out with a transistorized grid dipper or noise bridge.

("Kurt" who brings you good karma asks to be disguised in order to speak the truth and not have to argue with yahoos who think the parasitic array was invented by Dr. Sushi.) □

Traveling RF and antenna patterns

Tania Miller, WB9TKC

Your radio signals play "contortionist" once they leave your antenna, twisting from horizontal to vertical and back again, once they refract off the ionosphere. Whichever "plane of reclamation" they're in when they are received by an antenna affects what you hear from your receiver.

The maximum useable frequency (muf) affects the bending of radio signals (RF) as well, as they hit the ionosphere and bend back again. RF sent out at too high an angle of radiation goes through the ionosphere, never to return to earth. Out in space, they bend and refract anywhere in the universe with the speed of light. Likewise, signals above your muf don't return. As you increase your useable frequency, the distance of coverage also increases.

We make RF reflect wherever we want them to go. If you were in a plane over Ohio, you could hear a 2-meter signal in the St. Louis, Missouri area.

RF below muf provides the longest skip. The most fantastic skip is provided near or just below the muf; in our case, 30 MHz. Above muf (300 MHz) there is no skip; the RF passes through the ionosphere and doesn't return, going out into space.

Horizontal and vertical antennas receive RF on "planes of reclamation." The angle of radiation of RF can change from horizontal to vertical as we speak on our mikes, sending RF to either a horizontal or vertical antenna as they twist.

On 10 meters FM, this "phase distortion" as the RF twists from one plane to another can be very noticeable or slight. As the antenna receives a signal in the correct plane of reclamation, the distortion clears again as it twists, refracting from the ionosphere.

A vertical with very little or no ground plane is only half an antenna. Just sticking a short ground rod into the ground beside the radiator of a vertical isn't enough of a ground for the radiator to work against and so, ungrounded, everything metal in your shack could be seeking to become 33 feet (on 40 meters) and "bite" wherever the operator touches.

The more ground wires (radials) you add, the better the ground for the vertical to work against.

An "isotropic" antenna, the one with the perfect omni-directional pattern, is the non-existent base standard that spec sheets are written against. (3dBi gain is 3 decibels of gain over an isotropic antenna.)

When you stack verticals one above the other, the pattern doesn't change (omni-directional) but concentrates in a narrower path, taking RF above and below the antenna and "squeezing" it more centrally, similar to a "donut" laying on the 360° horizon.

Thus, an antenna can give a very efficient PATTERN and have no more dBi of gain written into a spec sheet than an inferior antenna with the same pattern; i.e., a quarter-wave vertical's actual performance versus a coaxial stacked vertical which is several quarter-wave antennas, each radiating its own lobe-and-null pattern all along its length. □

Ron Flynn, KB8LU

One of SSTV's finest operators and a most pleasant and enjoyable gentleman to work on SSTV is Gerald Klatzko, ZS6BTD. He is most accommodating and will patiently and helpfully work anyone and everyone on SSTV. Gerald is very active and can be found around the 10, 15 and 20-meter SSTV calling frequencies almost daily from 1600Z to 0600Z, very late in the evening here in the States.

Gerald asked me to QSP to all SSTVers that he would like to see more SSTV activity on 21.340 MHz. When 10 meters is not open, everyone seems to park on 14.230. Gerald says he calls and calls CQ SSTV on 21.340 and no one comes back to him. Let's get more SSTV activity going on 21.340!

Robot sale a success

The inventory reduction sale of the Robot 400 and 800 seems to be a huge success. When I talked to them at the factory in early January, they were already out of 400s with enough parts on hand to make only a few more. I suspect that when you read this, the sale will be over and any remaining 400s will be in the hands of dealers for sale. Robot will maintain an inventory of parts for repairs of existing 400s in use.

Beginning in late November, and continuing through December into early January 1983, new Robot 400 and 800 owners were appearing on the SSTV frequencies daily. There is a renewed interest in SSTV. With this interest comes new ideas. We are already seeing refreshing new SSTV programs and materials. Welcome to SSTV!

Operating tips

Among Amateur Radio operators, SSTVers are an unusually friendly group. They openly welcome people into SSTV QSOs and are eager to help newcomers and offer assistance when problems arise. Recent newcomers to SSTV have certainly found a lot of helpful amateurs on 14.230. WD0ADZ, KC0CF, W8ASF, WA7WOD and N7AON are the call signs of the gentlemen most regularly heard giving help and advice to SSTVers.

I would like to re-emphasize a few of the more common, but very important, operating procedures for newcomers to SSTV.

It is most important to take the time to properly calibrate the receive contrast and receive brightness controls of the Robot 400. Record on tape 5-10 minutes of the internally generated grey scale from the 400. Then replay this grey scale tape back into your 400 and display it on your monitor. Adjust the receive contrast and brightness controls carefully until the grey scale from the tape appears on your monitor *exactly* as the internally generated grey scale appears on your monitor. You will have to switch back and forth many times, while making adjustments, till you get it right.

Once calibrated, mark the settings of those two knobs and *leave them alone!* I've heard a few people adjusting those controls for each picture they receive over the air. Once these controls are calibrated, you can be sure you are receiving SSTV pictures as everyone else sees them. You then can accurately comment and help others to improve the quality of the video they send. When you load a picture into memory from tape, you can be sure that the picture you see on your monitor is how it will look when you send it.

Lighting is the most important factor in setting up and snatching a good quality B&W SSTV picture. One or two short fluorescent tubes or a fluorescent circle light with cool white bulbs is best. You will have to get a lot of light on the picture or subject without glare or hot spots, and fluorescent lights do this best.

Incandescent lighting tends to be uneven, and hot spots often appear on the picture. Choice of subject or picture is also important as the resolution of SSTV pictures is not the same as commercial broadcast TV.

As in photography, composition is very important to SSTV pictures. Too much detail and small lettering will not produce a good SSTV picture. Some pictures or subjects will just prove unsuitable for SSTV use.

When you dial up one of the SSTV call frequencies and don't hear any activity, give a couple of QRZ SSTV calls, and if no one comes back to you, send out your SSTV CQ. When breaking into a SSTV QSO or checking into a SSTV net, do so on phone only by simply giving your call sign. The net control station or someone in the QSO will acknowledge you and pick you up when your turn comes around. Avoid breaking in on video. Your one frame 8-second video break will certainly be chopped up by others checking into the net or by those in the QSO and will be unreadable. Many SSTVers consider it very rude to break in or check in with a long multiframe video break.

There are many useful and interesting mods that can be made to your Robot 400 to expand your enjoyment and operating capabilities in SSTV. The warranties on 400s purchased during the sale are just about up, and you may want to take the cover off that 400 and see what's inside.

In next month's column, I'll briefly review all of the popular mods available for the 400 and tell you where you can get schematics or installation instructions.

Color graphics

If you have a new single-memory Robot 400 (or an old one), you can easily get into the color SSTV act and send RGB color graphics with your standard unmodified Robot 400. Using a Robot 800 or other keyboard, or using your camera pointed at a letter board, load into memory a picture of black graphics with a white background. You are now all set to transmit RGB color SSTV graphics. See *Figure A*.

Transmit two full frames with the TX select switch of the 400 in the MEMORY position, move the TX switch to REVERSE and send two frames, move the TX switch back to MEMORY and send two final frames. You have just sent a 2-2-2 RGB color SSTV sequence. Referring to *Figure A*, your black graphics will

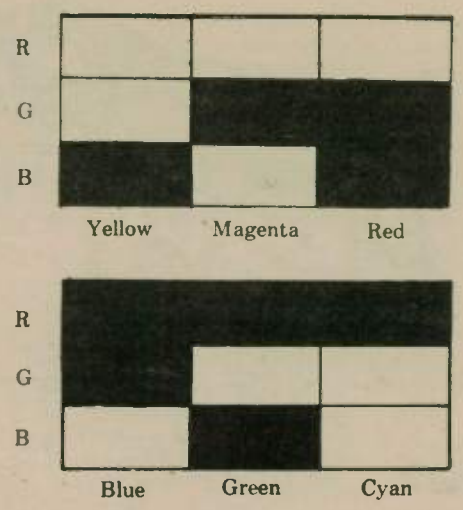


Figure A

be green to those receiving you in color, and your white background will be seen as magenta.

By using various B&W graphic and background combinations according to *Figure A*, and using various transmission combinations between the MEMORY and REVERSE positions, you can at least transmit six different colors of RGB color SSTV!

73s, Ron Flynn, KB8LU, Rt. 2 Box 204, Bangor, MI 49013. □

A time for trivia

Vince Luciani, K2VJ

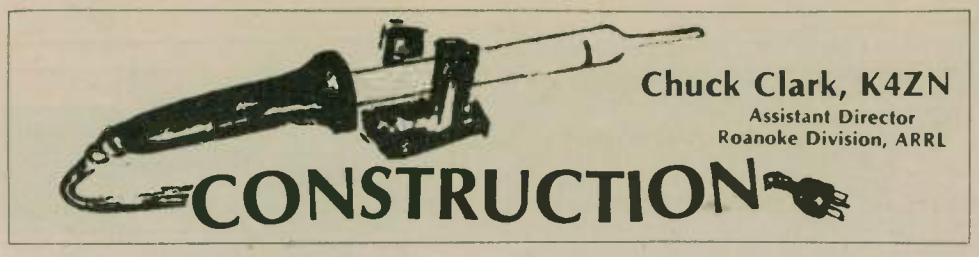
On an unexpectedly idle day when everything else on hand had been read, we turned to the wee, crammed print of the Radio Amateur Callbook. The list of trivia, below, resulted.

If you have your own pet call sign trivia, or should you have idle time to come up with more of these, please send them to me. Perhaps on another idle day, I'll put them all together.

Beware! Call sign trivia inventing is catchy. Looka what happened to W3MLZ. who researched the following.

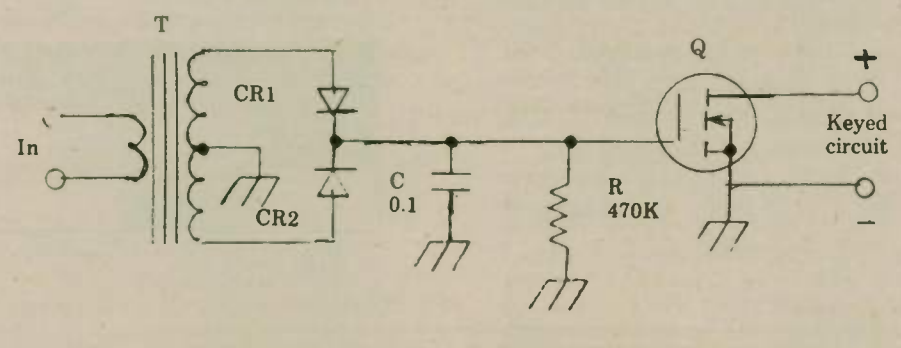
N1MA lives in ME, W1ME lives in MA. KB3PA lives in MD, K3MD lives in PA. N4GA lives in VA, K4VA lives in GA. KC5OK lives in AR, KC5AR lives in OK. AH6CA lives in CA, right? Wrong. WV.

KC7AK lives in OR, KL7OR lives in AK. W8OH lives in MI, N8MI lives in OH. KB9IN lives in WI, KB9WI lives in IN. 2's and 0's didn't fit, so — W0NJ lives in IA, W2IA lives in NJ. □



CONSTRUCTION

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL



Keying interface

Do you find yourself saying the same thing in every contact you make? Did you ever wish you could have a tape that would tell all about your rig, your antenna, your family, your age and all the rest? Of course you can do it on voice, but how about CW? Here is a simple gadget that makes it easy to use a tape recorder to key your transmitter. You have to make the recording, but only once; then it's ready to go whenever you turn on the switch.

It may be of use to Official Bulletin Stations who transmit on CW, because they can make their recording from W1AW transmissions and then play them back when it's their time to make their transmissions. Traffic handlers might find it easier to make a tape recording of a message to be relayed, instead of copying on paper and then transmitting it manually. Some voice and Teletype operators do this already. With this interface you can do it on CW also. You can have instant replay; let somebody know how his fist sounds. If you're a Morse buff and want to hear American Morse the authentic way, you can use this interface to key a telegraph sounder, changing dits and dahs into iddies and umpties.

The circuit shown in the diagram is very simple. Transformer T matches the low impedance of the speaker to the higher impedance of the VMOS transistor, Q. The rectifier diodes, CR1 and CR2, form a full-wave rectifier to apply positive voltage to the gate of Q, causing the latter to conduct. Capacitor C acts as a filter to attenuate the audio frequencies in the rectifier's output, and resistor R discharges the gate of Q when no signal is being received, allowing Q to become nonconducting.

Your local Radio Shack should stock all the parts you need, and you will probably find them at just about any electronics parts store. Radio Shack's 273-1380 transformer, 1000 ohms center-tapped to 8 ohms, will do for T, and Q may be either VN10KM (276-7070) or VN67AF (276-7071) — both in stock at Radio Shack.

Parts layout is not critical. You can etch a circuit board if you so wish, but it is simpler just to use a multiple-lug terminal strip (seven or eight lugs should be enough). As the transistor operates in a switching mode, relatively little power is dissipated, and so — unless currents of 100 milliamperes or so are being switched — no heat sinking will be needed. No power supply is needed; all voltages are taken from the audio input and the transmitter keying circuit.

Adjust the input voltage (with the gain control on the tape player or the receiver) for best keying. The adjustment is not critical. You will find that with very low input, the keying circuit will not close, and with very high input the circuit noise will keep the key closed continuously, but in between everything will work nicely.

When you build something yourself, you can modify it to meet your own particular needs, instead of having to depend on what some engineer thinks you ought to need. So you can add a headphone jack across either the low impedance or high impedance winding of the transformer, depending on the type of phones you will use, or you can install a speaker across the low impedance winding of the transformer, so that you can monitor. If you wish, you can substitute a volume control for R and use it to adjust the level of audio input.

Next contest, make a recording and splice it into an endless loop, and you'll have a simple substitute for a memory keyer. □

Safety belts

All the folderol and a considerable amount of balderdash about using safety belts when climbing the tower is a complete waste of time. Anyone with an ounce of brain will tell you that by the time you lace up the harness and strap the belt on your body you can be up the tower and back down!! If anyone would like further info on the folly of safety belts you can drop me a line at this address: R.F. Inshack, KX2U, Memorial Hospital, 7388 Traction Rd., Brokentutu, Pennsyltucky.

—*Tamiami ARC, Venice, FL* □

Repeater with a twist

Mark Mokoski, WA1ZEK

Many amateurs today own some type of personal computer: Apple, TRS-80, PET, and others on the market. But many amateurs who would like to get into computing can't, what with the cost of such equipment equal or above that of their modern HF rig (average cost is between $700 and $1200 for most home computers).

But there is a cheap way to enter into computing by way of the computer repeater. Low-cost ASCII (American Standard Computer Information Interchange code) keyboards can be picked up for around $70 from hobby supply stores or mail order houses.

To get on the "bandwagon," you will need the keyboard, some very cheap IC chips (to convert the keyboard signals to audio tones) and a TV set with a converter (see *Figure 1*).

TTY (teletype) data from the keyboard is converted into FSK (frequency shift) tones and fed into your 2-meter rig. The computer receives the decoded data and responds to your commands by way of a 450 MHz video link that the computer generates and is down-converted and fed into your home TV set.

Some of the features could be a "mail box"; club member mailing lists; phone numbers, etc., could be hooked up; meeting times posted; hamfest info; and other endless items, as well as just "playing" around with it.

With the computers becoming part of our everyday life, I think we should all learn how to use them instead of blaming those "things" for sending you junk mail, wrong bills and other goodies you get in the mail.

I think that idea has some good that can come out of it. So, if you have an interest, please contact me. I have most of the equipment and sources for the rest, including parts, to think about it!

— *Middlesex ARS, CT*

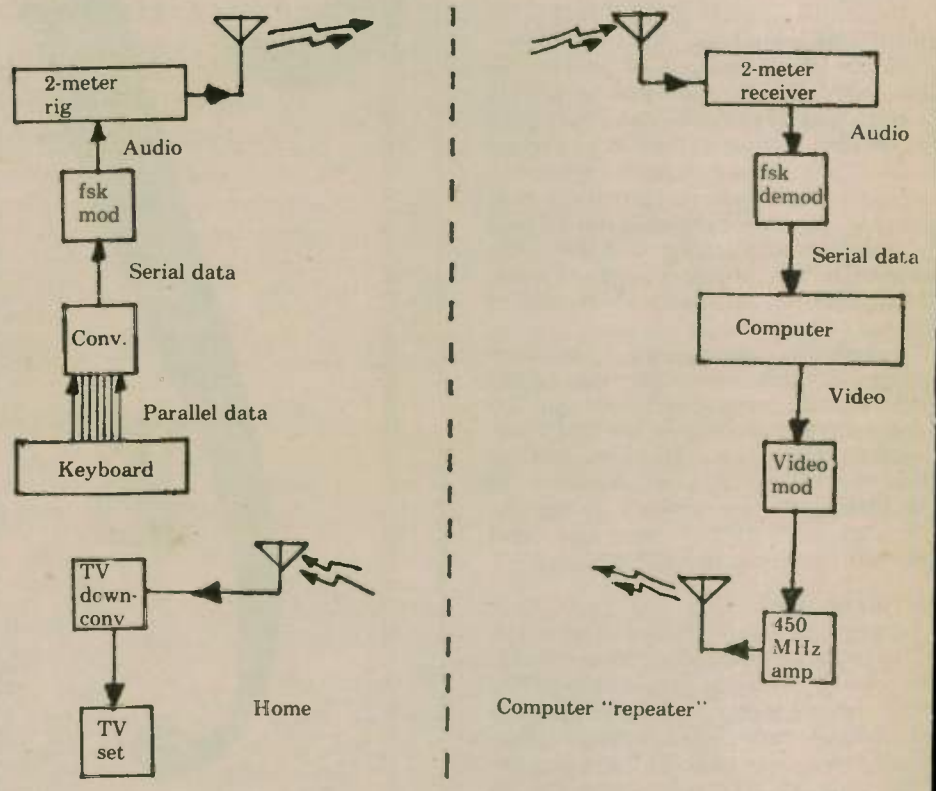


Figure 1

Although there has been no formal vote other hint of interest, support or opsition, QRPers apparently have settled 10.106 MHz as their calling and listeng frequency for the new 30-meter amaur band.

European QRPers, who had access to ie 10 MHz band before U.S. amateurs ot it late last October, settled on that equency and, by default, it appears to ave been adopted on a worldwide basis. ome U.S. amateurs have been heard perating QRP on 10.120 MHz, so check oth frequencies for other low-power thusiasts.

Other international QRP frequencies e 1810, 3560, 7030, 7040, 14060, 21060, 8060 and 50360 kHz for CW; 1810, 3985, 285, 14285, 21385, 28385 and 50385 kHz r SSB; and 3710, 7110 and 21110 kHz r Novices.

•

Jack Swiney, VK6JS is the new secreary of the World QRP Federation (WQF), umbrella organization of QRP clubs orldwide. He succeeds Gus Taylor, 8PG/GW8PG, and Jack was elected ithout opposition.

The federation, following a split vote of s member clubs, has amended its bylaws increase its recognized power limit for deband transmissions to 20 watts PEP ased on a *two-tone test*. The previous vel was 10 watts PEP. However, in aking the change, WQF told member ganizations they could continue to set eir own power levels for contests and her activities.

ARI QRP (the Italian club) and G-QRP ub (based in Great Britain) proposed e change, and they were backed by the enelux Club, the Michigan QRP Club, A8 QRP DX Club, Grupo QRP do rasil, and QRP ARCI in the United tates. Opposing the change were the ugoslavian Club (YU3EOP) and VK CW RPp Club, while the JARL QRP Club d DL AGCW abstained in voting.

Ed Popp, K5BOT — who was the QRP RCI representative to WQF at the time - said the U.S. group went along with the hange in an effort to end debate over it. e said QRP ARCI will continue to cognize 10 watts PEP *output* on sideand and 5 watts *output* on CW for all its ontests, awards and other activities here power is a key ingredient.

The change in the WQF constitution oes *not* affect its recognition of a DC inut not to exceed 10 watts or an RF outut not to exceed 5 watts for CW, howver.

•

WQF has designated 1983 the Year of echnical Development.

The group's announcement says: "It is uggested that member organizations ake 1983 a year of technical development by encouraging home construction f QRP equipment, antenna development nd experimentation, and studies into ropagation of QRP signals on HF bands. "Such work can be encouraged by ublicity and offering suitable awards nd then reporting via WQF so that we all an benefit."

QRP ARCI President Ed Popp, K5BOT has urged the group's members to undertake the homebrewing of more equipment in 1983.

•

Austral a's fine QRP group — VK CW QRPp Club — has opened its ranks to those living in other countries. At the most recently available count, the club had just under 100 members in Australia, New Zealand and Great Britain.

Dues are $6.40 (Australian) payable each January or 16 IRCs sent to: Jack Swiney, VK6JS, 59 Collova Wattelup 6166, WESTERN AUSTRALIA. The club publishes a fine quarterly bulletin, which is a good way to keep track of low-power doings Down Under.

If you are looking for club members and can't find them on the other QRP frequencies, try 3530, 7025, 14050, 21130 and 28125 kHz.

The club sponsors an annual contest (usually in November) with the interesting title of: VK CW QRPp Club vs. the World. That gives you some idea of how seriously Jack and his colleagues take themselves.

•

North American members of G-QRP Club will have the rare opportunity of meeting the Rev. George Dobbs. G3RJV, the club secretary, in the fall.

George and his wife, JoAnna, will be in Houston for the ARRL National Convention, 7-9 October. He will be one of four panelists at a special QRP Forum — the first of its kind — to be staged at a League convention.

Additional information on the program will be available later, but others now signed on for the event are Doug DeMaw, W1FB, from the League staff; Adrian Weiss, W0RSP, QRP editor for CQ Magazine; and Thom Davis, K8IF, past president of QRP ARCI.

Texas QRPers will have the Dobbses in tow for about the first 10 days of their visit, after which they will round out a three- or four-week vacation in this country with trips to other areas. George says he would enjoy meeting as many G-QRP Club members as possible and is available to speak to local clubs about the extent of QRP activities in Europe. He has a slide presentation to go along with his words.

Details are available by dropping me a line at Box 12072, Capitol Station, Austin, TX 78711. □

U.S. QSL Service, Inc.

Laryl Berry, KM7Z

Greetings from USQS, the free domestic bureau for your QSLing to stateside stations. We are still looking for more ways to continue to improve our service and empty our files of all unclaimed cards. Donations are helping and we are making gains, but more is needed. The OM suggested carrier pigeons to deliver cards, but our parrot vetoed the idea. Folding the QSL cards into paper airplanes wouldn't work either, I guess. hi hi.

Since we receive and forward cards for the entire USA, we have quite a number (near 10,000) of unclaimed cards on file. We will continue to mail out unclaimed cards, as fast as donations are received to cover postage costs, along with a flyer as a complimentary introduction to our service.

If you receive a flyer from us, please accept our invitation to keep SASEs on file. We previously were using our home computer to help keep track of who received complimentary mailings among other things; however, our volume of files proved to be too much, and the computer revolted on us. Now we are in the process of compiling data again. If you receive more than one free mailing of QSL cards, *PLEASE* consider keeping SASEs on file as USQS is working for you!

Following is another list of some of the unclaimed cards we have on file. Thanks to all who support us with donations, SASEs and extra stamps and envelopes for forwarding cards. If you recognize a call below, please help spread the word about USQS. Our address is: USQS/ KM7Z, P.O. Box 814, Mulino, OR 97042.

AI1E	KA3EFO	W6EBZ	WD8ECA
AJ1E	WA3EFZ	N6ECR	AB9E
KC1E	KA3EHE	W6ED	KD9E
KG1E	KA3EHF	WA6EDK	KM9E
K1EA	KB3EI	WB6EDM	KB9EA
KA1EAP	KE4E	W6EDN	K9EAM
K1EAT	NG4E	AA6EE	KA9EAT
K1EB	W4EAO	N6EED	KA9EAY
WB1EDL	N4EAY	KA6EEI	W9EB
WB1EDM	N4EEK	WD6EEK	KA9EBT
KA1EE	N4EEL	KM7E	W9EBY
WB1EEM	K4EF	N7EA	K9EC
K1EFI	K4EGE	N7EAL	W9EDS
W1EGJ	N4EGJ	KB7EB	KA9EDX
KA1EHK	N4EJK	WB7ECB	WB9EEA
AD2E	WD4ENA	N7ECE	WA9EEH
AJ2E	N4ENX	WB7ECH	AC0E
AK2E	KA4EQW	W7ECZ	KM0E
KC2E	KK5E	W7ED	KV0E
KF2E	KN5E	N7EDV	K0EA
KK2E	KO5E	KC7EE	KA0EAB
KQ2E	KU5E	WB7EEA	WA0EAL
KR2E	W5EA	W7EEC	WA0EEA
KV2E	KC5EA	K7EFB	N0EEN
W2EBM	WA5EAF	W7EFC	WB0EFV
WB2EBS	WA5EAI	AC8E	KA0EGJ
K2ECK	N5EAL	KE8E	N0EHF
KB2EE	N5ECI	KM8E	WD0EHS
W2EEW	W5EDB	KU8E	K0EIA
KB3E	KA5EDR	N8EA	K0EIC
KE3E	KA5EDX	N8EAK	K0EL
W3EB	N5EFG	N8EAN	WB0ELJ
WB3EBB	KA5EFV	N8EAO	
KC3ED	KR6E	N8EAR	
KA3EDN	NA6E	N8EBA	
KA3EDS	N6EA	KA8EBG	
KA3EDX	WD6EAW	KA8EBH	
KA3EET	W6EBV	N8EBO	

OLD TIME RADIO

W5JJ

Carl C. Drumeller

The first radio amateur?

Very probably we'll never know just who the first person was to receive from the United States government a license to operate his own amateur wireless/radio station. It is far from certain just what entity of the government may have had the authority to issue such a license. It may have been the Department of Commerce; it may have been the Navy Department. One person, however, has made claim to having been the very first licensed radio amateur. Did he mean the first person licensed under the Radio Act of 1912? Or under some prior authority?

Irving Vermilyea — who held several calls over the years, the last being W1ZE — made firm claim to the honor of having been the first licensed radio amateur. This claim was asserted in the February/ March 1917 issue of **QST**.

He was listening from his home in Mount Vernon, New York for Marconi's signals from England in 1901. At that time, Vermilyea was an amateur of wire telegraphy, being tied into a wire net of amateurs in his neighborhood. Like many other such amateurs, he quickly made the transition from wire to wireless telegraphy.

Colonel Fred Elser, KH6CZ very kindly provided a QSL card from W1ZE. It's dated 02 April 1958. Colonel Elser, however, had visited Vermilyea in 1928 when the latter was running WNBH — a broadcast station he had constructed.

KH6CZ tells an interesting sidelight relating to Vermilyea's ingenuity. Confronted with the challenge of attaching an antenna to a tall but non-climbable smokestack, he solved the problem by waiting until the stack was not in use, then put a small balloon — with an attached string — into its interior. After the balloon had risen through the stack, he shot it down and used the string to pull through a line strong enough to support the antenna!

My thanks to KH6CZ for his input!

Old-timer recalls spark

A letter from George A. Heintz of Meadow Vista, California relates his early-day activity on spark radiotelegraphy. In 1923 -- while living in Minneapolis, Minnesota and holding the calls 9DCJ and 9GI — he normally contacted stations out to 300 miles. Two of the better-known stations he contacted were 9ZN and 9EK. The former will be remembered as the founder of Zenith, long a manufacturer of radio receivers and now TV sets. In those days, with spark transmitters, 300 miles was choice DX!

Thank you, George, for the news item.

Kenneth Knapp, listening to his first crystal radio set.

Amateur at 3

Jayne Machado, KA6TID

It was 1926, and Kenneth Knapp — age 3 — was already an amateur listening to his first crystal radio set, built by his cousin Ralph Kalbfeisch in Lynwood, California.

Kenneth has been interested in every form of radio communications since his first experience with the crystal radio set. He became an Amateur Radio operator in 1951 and his call letters were WN6KTG. While a Novice, he was the only one I knew of in West Covina and Pasadena, California with a mobile CW key on the Novice bands. Now he is a Technician with the call WA6KNR.

Kenneth worked for Electro-Optical Systems in Pasadena, California for 10 years as a quality assurance representative working with solar cells. Kenneth worked with Richard LaBelle, W6FXN there. Kenneth is with Exide Industrial Battery Division as a field service engineer in Santa Fe Springs, California.

One of the services Kenneth performs at UCLA and USC is on carbon batteries and charges. He demonstrates the maintenance of these units.

Looking forward to his retiring in two years, Kenneth plans to dedicate more time to Amateur Radio.

Kenneth resides in West Covina, California with his wife, Faith. He has four lovely children and five grandchildren.

HAPPY BIRTHDAY, KENNETH KNAPP, AND MANY MORE! □

Dual LCD 24-hour clock

The new MFJ-104 clock features two independent 24-hour LCD digital displays. You can read both GMT and local time at a glance.

The six-digit main display includes a seconds readout. The auxiliary display has four digits. There is a switch for reversing the main and auxiliary displays.

The clock alarm plays any one of four melodies that you select. There is also a snooze button and an "alarm on" indicator.

Quartz timing assures accuracy. The clock is synchronizable with WWV.

A flip-top cover serves as a stand when opened and protects switches and settings when closed.

The MFJ-104 features a night light, a forward and a reverse switch, fast and slow setting speeds, and a lock function to prevent missetting.

You can display main time only, main and auxiliary times or main and alarm times.

This attractive and compact clock is housed in a black plastic case with gold accent and measures 4" x 2" x ½".

MJF provides a 30-day money back trial period. If you are not satisfied, you may return it for a full refund (less shipping). MFJ also provides a one-year limited warranty.

The MFJ-104 clock is available from MFJ Enterprises, Inc. for $39.95 plus $4 for shipping and handling.

To order, call toll free 1-800-647-1800 and charge it to your Visa or MasterCard account, or mail order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762.

HF transceivers

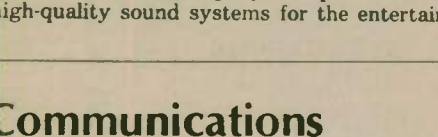
Yaesu Electronics Corporation is pleased to announce two additions to its line of HF transceivers.

The FT-980 is a full-featured 160-10 meter transceiver which also includes a general coverage receiver section. Providing a nominal 100 watts RF output from a low-distortion, high-voltage final amplifier, the FT-980 is set up for full QSK with silent solid-state switching. The receiver section is designed for wide dynamic range and versatility in filter selection. An audio peak filter, IF notch filter, variable pulse width noise blanker, variable IF bandwidth with IF shift (passband tuning), and an audio shaping control round out the receiver features.

The FT-980 is controlled by an 8-bit microprocessor, which allows storage of frequency and mode into memory, while also allowing the programming of sub-band limits for Novice, Technician, General or Advanced Class operators. Direct keyboard entry of frequencies provides instant QSY without the need to rotate the main tuning dial.

The FT-77 is an extremely compact HF transceiver for active mobile or space-conscious operators. Utilizing computer-aided design and automated insertion techniques, the FT-77 represents a new advance in manufacturing efficiency and reliability. Equipped for SSB and CW operation (FM optional), the FT-77 includes digital frequency display, CW wide/narrow selection, selectable AGC, RIT, and a highly effective noise blanker.

A full line of accessories is available for both the FT-980 and the FT-77. For further information, contact: Yaesu Electronics Corp., P.O. Box 49, Paramount, CA 90723.



Microphone element

Heil Sound, the company that pioneered the high-quality sound systems for the entertainment industry, introduces their new microphone cartridge — the HC-3 element.

The HC-3 is one of the major advancements in SSB transmission since the "Donald Duck" vs. AM days. The HC-3 was developed *ONLY* for maximum SSB clarity and articulation. The response is 350 Hz-3100 Hz with a peak of +4dB at 2400 Hz, giving maximum speech clarity.

This tiny element is the size of a postage stamp and will fit in most existing microphone cases.

The HC-3 is being used by major contest stations and DX operators for that demanding signal to break those heavy pileups.

Cost is only $19.95. Available from Heil, Ltd., P O. Box 68, Heil Industrial Dr., Marissa, IL 62257.

Slinky Dipole antenna

We want to encourage as many radio amateur operators and shortwave listeners as possible to use the newly-assigned 10 MHz or 30-M band. Our Slinky Dipole antenna can be set up for this band without extra attachments, but it takes some new tuning information to do it.

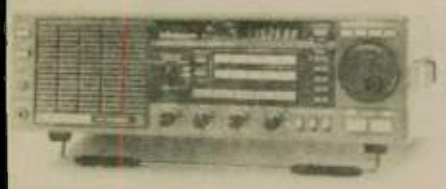
We're offering all owners of Slinky Dipole antennas a free tuning chart for the 10 MHz band. No matter when they bought their antenna, or from whom, they can send us a large (#10) stamped, addressed envelope for this information. People overseas need send only their name, address and two IRCs.

Our address is: The Blacksburg Group, Inc., P.O. Box 242, Blacksburg, VA 24060.

Communications receiver

Trio-Kenwood has just announced the new R-2000, a highly sophisticated, all-mode communications receiver that covers 150 kHz-30 MHz in 30 bands. Designed to answer the needs of the shortwave listener as well as the radio amateur, this new radio is capable of receiving signals on AM, USB, LSB, CW and FM.

Among the more interesting features to be found on this model are digital VFOs; 10 memories that store frequency, band and mode data; memory scan; programmable band scan; and a dual 24-hour quartz clock, with a timer that can be programmed to turn the radio on and off on a pre-selected schedule. Additional features include a built-in lithium battery



memory back-up (est. five-year life); fluorescent tube digital display; three built-in IF filters with switch; manual "UP/DOWN" band scan; squelch; "S" meter; noise blanker; and RF step attenuator.

The R-2000 operates on 100/120/220/240VAC, or may be operated on 13.8VDC, using an optional DCK-1 cable kit. Suggested retail price, $599.95.

For additional information, contact your local Kenwood Amateur Radio dealer, or write: Trio-Kenwood Communications, 1111 West Walnut St., Compton, CA 90220.

VHF linear amplifier

THL's most economical new VHF linear amplifer, the new 30 watt HL-30V, for use with portable 2-meter radios.

Even though the price is only $69.95, the HL-30V is a high-quality, easy-to-use 30 watt VHF amplifier. It is designed to be driven to maximum output power with only 3 watts drive from hand-held radios. It will take 1-5 watts drive, with 1 watt delivering about 10 watts output. This neat little amplifer is perfect for turning your hand-held 2-meter transceiver into a powerful mobile (or base station with appropriate power supply).

This versatile linear amplifer operates on 13.8 volts DC and draws approximately 4 amps maximum during transmit. It utilizes carrier-operated switching (COX) with no delay and has SO-239 connectors. The HL-30V measures approximately 4"W×6"D×1"H (100×158×30m/m) and weighs 520 grams. Suggested retail for the HL-30V is only $69.95.

Also available from Encomm is the HL-32V. This amplifier is similar to the HL-30V except it has an FM/SSB switch to allow SSB/CW operation and a high/low-power switch, which cuts output power by one-half. Suggested retail for the HL-32V is $89.95.

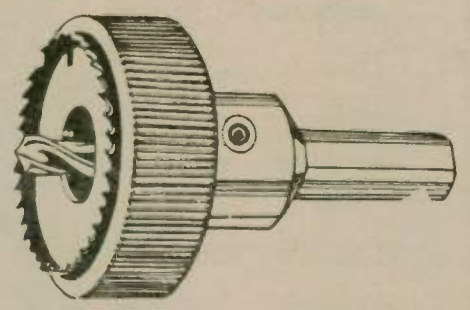
For more information, write THL Sales Department, Encomm, Inc., 2000 Ave., G Suite 800, Plano, TX 75074, or call 214-423-0024.

Hole saw

Larsen Electronics knows the value of the right tool for the job. And now they're making some jobs a little easier with a new antenna installation tool.

With Larsen's antenna hole saw HS-1, there's no longer any danger of damaging vehicle headliners. The saw limits the depth of the hold to ⅛" and scores paint to ensure a better ground. All components are hardened for longer life. The saw fits ⅜" or larger electric drills.

For more information, contact Larsen Electronics, P.O. Box 1799, 11611 NE 50th Ave., Vancouver, WA 98668; (206) 573-2722.



UHF portable transceivers

Yaesu Electronics Corporation is pleased to announce two additions to its line of UHF mobile and portable equipment.

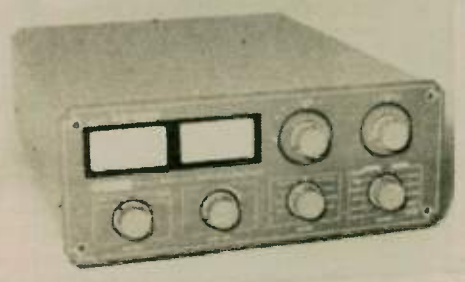
The FT-730R is a 10 watt FM transceiver for the 440-450 MHz band. Utilizing a liquid crystal display (LCD) for high visibility in sunshine or at night, the FT-730R is controlled by a 4-bit microprocessor, which provides up/down scanning, 10 memories, and a priority channel with search-back. Dual VFO capability provides instant frequency change to the opposite end of the band, if desired. Memory backup is provided by an internal lithium cell with an estimated lifetime of five years. An optional synthesized CTCSS unit (encode or encode/decode) is available.

The FT-790R is a multimode backpack portable transceiver for 430-440 MHz. Fully synthesized with selectable channel steps, the FT-790R provides 1 watt of output on SSB, CW or FM. Optional NiCd or alkaline cells may be installed inside the FT-790R, which also uses a self-contained antenna for mountaintopping expeditions or emergencies. The FT-790R is also controlled by a 4-bit microprocessor, providing memory, scanning and priority channel operation.

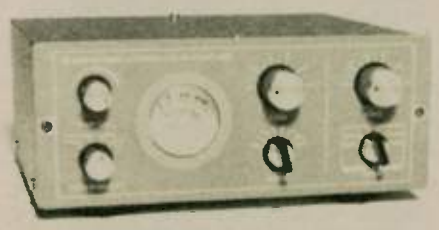
For further information on the FT-730R, the FT-790R, and their line of optional accessories, contact: Yaesu Electronics Corp., P.O. Box 49, Paramount, CA 90723.

Antenna tuners

Encomm, Inc. announces two antenna tuners from Tokyo Hy-Power Labs — the 2000 watt HC-2000 and the 200 watt HC-200.



The HC-2000 is a 2000 watt PEP (500 watts max on 1.9 MHz) HF antenna coupler with a nice power/SWR meter and a versatile 12-position antenna switch (6 through the tuner and 6 bypass). It will tune coaxial-fed antennas, balanced-line antennas (balun included), or end-fed wires. The HC-2000 is band-switched for 1.9, 3.5, 7, 10, 14, 18, 21, 24.5 and 28 MHz (all WARC) bands, so you don't have to experiment to find your inductor setting, plus it has 6:1 vernier dials on the capacitors for easy fine tuning! Scales on the dual meters include SWR, 2kW, 200W and 20W. Connectors are SO-239s and Johnson terminals. Suggested retail for the HC-2000 is $329.95.



The HC-200 is a combined 200 watt HF antenna coupler with a power/SWR meter and a six-position antenna switch (3 coaxial/wire positions through the tuner and 3 bypass). It will tune end-fed wires, coax or balanced line antennas (with optional balun). The HC-200 is band-switched for 3.5, 7, 10, 14, 18, 21, 24.5 and 28 MHz (includes new WARC) bands. Scales on the meter include SWR, 20W and 200W. Connectors are SO-239s and Johnson terminals. Suggested retail for the HC-200 is only $99.95.

Both antenna tuners have high-quality ceramic coil forms, well-damped/well-shielded meter circuits, as well as first class design and layout, and there are no ferrite cores in the main inductor to saturate!

For more information, contact THL Sales Department, Encomm, Inc., 2000 Ave., G Suite 800, Plano, TX 75074, or call 214-423-0024.

ARRL Northwestern Division Convention

The ARRL Northwestern Division Convention, known as Northwest '83, is being promoted by the Spokane Amateur Radio Council and will be held in the 40,000 sq. ft. Spokane Convention Center 8-10 July. The Center was built eight years ago for the EXPO '74 Spokane World Fair. The site of the Northwest '83 convention is located on the banks of the Spokane River, and is centrally located close to the finer hotels and downtown shopping. Riverfront Park (formerly EXPO '74) is right next to the Convention Center and offers a wide variety of summertime activities for the whole family, including the IMAX theatre, carousel, train rides, and acres of lawn for lying in the sunshine.

Northwest '83 events will include seminars on antennas, traffic handling, weather spotter forum, computers, FCC exams, ARRL forum, ARRL Advisory Committee forum, and much more. A DX breakfast and forum is being planned, and DXers can meet Don Search from headquarters (Mr. DX). For the ladies, a noon luncheon and style show is scheduled, and additional programs for the ladies during the day include powder-puff mechanics, CPR training and make-up analysis. Major manufacturers of Amateur Radio equipment will exhibit, along with the radio equipment dealers in the Pacific Northwest. We'll have a big flea market and swap with prize drawings.

The big highlights of Northwest '83 is the Saturday night banquet. Roy Neal, K6DUE of the NBC news team will be the featured main speaker. Roy is featured in the ARRL film *Moving Up to Amateur Radio*. Our league president — Vic Clark — and delegates from Spokane's two sister cities in Japan and Germany, with whom daily Amateur Radio contact is maintained, will be at Northwest '83. Banquet toastmaster will be Northwestern Vice Director Mel Ellis, K7AOZ.

Special convention activities will include the initiation of new members into the Royal Order of the Wouff Hong at midnight following the banquet, and displays of antique radio and telegraph gear, hundreds of old tubes, and other electronic curios. The QCWA is planning a get-together.

Talk-in will be on 146.34/94, 147.90/30, 146.52, 223.94, 444.70. Lodging is available nearby in Spokane's finest hotels. RV parking and services are also nearby.

Pre-registration is $5 per person until 17 June 1983, $7 after 17 June. Flea market tables are $10 for the entire convention. Wouff Hong is $1. Lodging is arranged through our Housing Bureau, Box 2193, Spokane, WA 99210. For registrations and/or information, write to the Convention Manager of Northwest '83: Kyle Pugh, KA7CSP, P.O. Box 3933, Spokane, WA 99220.

Illinois

The Libertyville and Mundelein Amateur Radio Society (LAMARS) announces its annual hamfest — LAMARSFEST 1983, to be held Sunday, 27 March, at the Lake County Fairgrounds in Grayslake, Illinois. The fairgrounds are located at Routes 45 and 120.

Tables (9-foot) are $5 each, choice locations first (reservations encouraged). Commercial exhibitors, contact LAMARS for information. Commercial set-up begins at 6:30 a.m.; others begin at 7:00 a.m. Public admitted at 8:00 a.m. Tickets are $2 in advance, $3 at the door. Prizes, free parking, and breakfast and lunch will be offered.

Talk-in on 147.63-.03 or 146.94 simplex.

For tickets, table reservations or exhibitor information, send SASE to: LAMARS, P.O. Box 751, Libertyville, IL 60048.

●

The 17th Annual Rock River Amateur Radio Club Hamfest will be held on Sunday, 10 April, at the Lee County 4-H Center, one mile east of junction of Routes 52 and 30. Camping space available at nominal charge. Tables available (6-foot) at $5. Advanced ticket donation $2, at gate $2.50. Lots of prizes; breakfast and dinner will be served.

Talk-in on 37/97 repeater. Doors open at 6:30 a.m. for dealers and 7:30 a.m. for general public.

For more information and advance tickets, write to: Ed Webb, WD9CJB, 618 Orchard St., Dixon, IL 61021, or call 815-284-3811.

New Hampshire

The 3rd Annual Hamfest-Fleamarket, sponsored by the Great Bay Radio Association, will be held on Saturday, 9 April 1983, at the Somersworth Armory, Somersworth, New Hampshire, from 9:00 a.m. to 3:00 p.m. Door prizes drawn every hour. Food and refreshments available. Free parking. Entrance fee $1 per person (ticket counts toward door prizes).

For advance registrations and further information, write Great Bay Radio Association, P.O. Box 911, Dover, NH 03820.

New Jersey

On Sunday, 13 March, the Irvington Radio Amateur Club will hold its 11th annual hamfest at the P.A.L. building, 285 Union Ave., Irvington, NJ 07111. The QTH is right next to the Garden State Parkway and can be easily reached via exit 143 (northbound) or exit 143B (southbound). Tables are $3; admission is $1.

Talk-in on 34/94, 52/52 and 147.415T/146.415R.

For reservations and info, call or write Ed Surmaitis, WA2MYZ, 2133 Stanley Terr., Union, NJ 07083; 201-687-3240. Call after 5:00 p.m. or on weekends. Before 5:00 p.m., call 201-241-8585 and ask for Joe Barnes, WB2SRY.

Ohio

The Lake County Amateur Radio Association will present their 5th Annual Lake County Hamfest and Computer Fest, Sunday, 27 March 1983 at Madison High School, Madison, Ohio.

Doors open for exhibitors at 5:30 a.m. and for the public at 8:00 a.m., at this large indoor location. We'll close at 4:00 p.m. Admission is $2.50 advance and $3.50 at the door. Table and display space is $5 for 6-foot table, $6.50 for 8-foot table.

Plenty of free parking and all display space is indoors at this location.

Talk-in on 147.81/.21. Main prize drawings start at 3:00 p.m.

Information and reservations are available by sending SASE to: Lake County Hamfest Committee, 37778 Lake Shore Blvd., Eastlake, OH 44094; (216) 953-9784.

Wisconsin

The Tri-County Amateur Radio Club will hold its annual hamfest on 20 March 1983, from 8:00 a.m. to 3:00 p.m. at the Jefferson County Fairgrounds, Jefferson, Wisconsin. No price increase! Tickets are still $2.50 in advance and $3 at the door. Tables are $2.50 in advance and $3.50 at the door.

Talk-in on 146.52, 146.22/82 and 144.89/145.49.

For more information, advance tickets and tables, send an SASE to Horace Hilker, K9LJM, P.O. Box 204, 261 E. High Street, Milton, WI 53563.

●

The Madison Area Repeater Association, Inc. (MARA) is pleased to announce its 11th Annual Madison Swapfest which will be held on Sunday, 10 April 1983, at the Dane County Exposition Center Forum Building in Madison, Wisconsin. Doors will be open at 8:00 a.m. for commercial exhibitors and flea market sellers and at 9:00 a.m. for the general public.

The Forum Building has over 20,000 square feet of space for commercial exhibitors and the flea market, and plenty of space for parking in the adjacent paved lot. Hotel accommodations are available within walking distance of the swapfest.

Commercial exhibitors and flea market sellers will provide a large variety of equipment and components for amateurs, computer hobbyists and experimenters. Door prizes will be awarded.

Admission is $2.50 per person in advance and $3 at the door. Children 12 and under are admitted free. Flea market tables are $4 each in advance and $5 at the door. Be sure to reserve early, as tables were sold out last year.

Talk-in on WR9ABT, 146.16/.76.

For reservations or more information, write to MARA, P.O. Box 3403, Madison, WI 53704.

CONTESTS

IARS/CHC International Contest

The International Amateur Radio Society and Certificate Hunters Club are pleased to announce their semi-annual contest. The CW portion of the contest will be held 12-13 March; the SSB portion will be 19-20 March. Both portions will last for 48 hours, beginning at 0000Z.

Frequencies: *CW* — 70 kHz from bottom of the band; *SSB* — 3960, 7260, 14300, 21360, 28600.

Exchange: signal report, membership number and state province or country. (Example: 599 CHC 41 CT)

Scoring: Work stations once per band, no repeater or cross-mode. Count 1 point per QSO and 1 point per state, province or country. Multiply QSO points times number of IARS or CHC members worked. (A member of both divisions will count as multipliers.)

Certificates: Awarded to winners in each country, province and state, as well as worldwide, U.S. and DX score.

Logging: Must show date/time in GMT, station worked, exchanges, QSO points and claimed score. All entries with 100 or more QSOs must include check-sheet or be disqualified from receiving of awards.

Entries: Mail by 1 May 1983 to Ted Melinosky, K1BV, 525 Foster St., South Windsor, CT 06074 with large SASE for results.

Idaho QSO Party

The Idaho QSO Party will be held for three consecutive days, from 0000Z on 12 March through 2359Z on 14 March. The contest is being sponsored by the Kootenai Amateur Radio Society of northern Idaho.

Exchange: RS(T) and county for Idaho stations; state and country for all others.

Scoring: Idaho stations score 1 point for each QSO — multiplied Idaho counties, states, VE provinces and countries worked. Others score 1 point for each Idaho QSO multiplied by the total Idaho counties worked.

Frequencies: CW — 50 kHz up from the lower band edge; *Novices* will operate 25 kHz up from their lower band edge. *SSB* 3.920, 7.260, 14.250, 14.325, 21.325, 21.380 and 28.550. No net frequencies!

Awards: Will be issued to top scorer in each Idaho county, state, VE province and country.

Mailing deadline for all entries in the USA is 16 April 1983 and 1 May 1983 for all DX countries and Canada. They should be sent to: Vladimir J. Kalina, KN7K, South 1555 Signal Point Rd., Post Falls, ID 83854.

Virginia QSO Party

The 1983 Virginia QSO Party — to be held 1800Z, Saturday, 12 March to 0200Z, Monday, 14 March — is again sponsored by the Sterling Park Amateur Radio Club, Sterling Park, Virginia.

This outstanding QSO Party features engraved award plaques to the top scoring stations in the following categories: High Virginia Single-Operator (fixed location), sponsored by Allen K3RZR and Sylvia Massie, KA3DTE; High Virginia Mobile Station, donated by Electronic Equipment Bank, Vienna, Virginia; High Out-of-State (including DX) Station; High QRP Station (if five or more QRP entries are received) donated by Dave Williams, K7HMP, QRP limited to 5 watts PEP on SSB or 5 watts DC input on CW.

Exchange: QSO number (sequence number beginning with 001) and QTH (county for Virginia stations; state, province or DX country for all others). Virginia stations note that the reference for valid counties is the CQ Magazine *Counties Award Record Book* which lists a total of 95 counties.

Scoring: 1 point per QSO. Virginia stations multiply total QSOs by the sum of states, Canadian provinces, DX countries and Virginia counties worked. Out-of-state stations multiply QSOs by the number of Virginia counties worked.

The same station may be worked on each band and each mode. Virginia stations may contact in-state stations for QSO and multiplier credit. Virginia mobile stations may be worked in each new county they operate for new QSO and multiplier credit, regardless if previously worked on same band and mode in another county. QRP stations must run 5 watts or less for their entire operating time.

Frequencies: *CW* — 60 kHz up from the low end of each HF band except anywhere in 10 MHz, 160 MHz, and Novice sub-bands. *Phone* — 3930 7230, 14285, 21375, 28575 and anywhere on 160 MHz band except in DX windows for U.S. stations.

Logs: Follow ARRL Standard Contest guidelines. Indicate each new multiplier as worked. Include a summary sheet with your log and an SASE for a copy of the results.

Mailing deadline is 15 April, to Virginia QSO Party, c/o Barry Pybas, KW4I, 313 W. Derby Ave., Sterling Park, VA 22170.

Wisconsin QSO Party

The West Allis Radio Amateur Club is once again sponsoring the Wisconsin QSO Party. The contest this year will be held on Sunday, 13 March 1983, 1700Z-2400Z.

Modes used will be CW and phone. Stations may be worked once per mode on each band. Mobiles may be worked again when changing counties. No repeater QSOs.

Exchange: Wisconsin stations send RS/T and county. Non-Wisconsin stations send RS/T and state/province.

Frequencies (suggested): *CW* — 3560, 7050, 14060 kHz; *phone* — 3990, 7290, 14290 kHz.

Scoring: Phone contacts count 1 QSO point; CW count 2 QSO points. Wisconsin stations — QSO points × (Wisconsin counties + states + provinces). NOTE: DX countries count for QSO points, but not multipliers. Non-Wisconsin stations — QSO points × (Wisconsin counties).

Bonus: Wisconsin mobiles add 500 bonus points for each county that you operate from outside of your home county. A minimum of 15 QSOs per county to qualify.

Logs: Entries must contain a log consisting of time (GMT), call, RS/T, state, Wisconsin county, mode and a score summary. Logs containing more than 100 QSOs must be accompanied by a dupe sheet. Entries must be postmarked by 15 April 1983 and sent to: Wisconsin QSO Party, c/o West Allis Radio Amateur Club, P.O. Box 1072, Milwaukee, WI 53201.

Awards: Awards will be presented to the highest scores in each state/province and to the highest aggregate club score.

Tennessee QSO Party

Announcing the 13th Annual Tennessee QSO Party, sponsored by: The Tennessee Council of Amateur Radio Clubs.

Periods: 2100Z, 19 March (Saturday) to 0500Z, 20 March (Sunday), and 1400-2200Z, 20 March (Sunday).

Exchange: Tennessee stations give a signal report and county. Out-of-state stations send signal report and state, province or country.

Suggested frequencies: *CW* — 1815 kHz, and approximately 50 kHz from the bottom of the HF bands; *Phone* — 1860, 3980, 7280, 14280, 21380, 28580 kHz; *Novice* — 3725, 7125, 21125, 28125 kHz. A minimum operating time of 10 minutes must be logged for each change of band or mode.

Scoring: 1½ points per CW contact. 1 point for each phone contact. Combine phone and CW score. Recognition will be given for phone-only and CW-only scores.

Multipliers: Out-of-state stations multiply QSO points by the total number of Tennessee counties worked. Tennessee stations multiply QSO points by the sum of the following worked: states (50), Tennessee counties (95), VO- and VE1-7 (7). DX stations count only for points not as multipliers.

Bonus points: Portable and mobile operation: add to total score a bonus of 500 points for each county you operated in outside of home county. A minimum of 10 contacts must be made in each county to qualify for bonus points.

Miscellaneous: Mobiles compete against mobiles; portables against portables. No county-line operation for multiple contacts. Portable stations must set up per Field Day rules. Single transmitter entries only. Repeater contacts not allowed. No list operation permitted. No CW contacts in phone bands. Contestants may work the same station on different bands, modes and counties in Tennessee.

Logs: Date/time in GMT, station worked, mode, exchange, and score. Logs must be legible to avoid disqualification. Submit crosscheck sheets (similar to ARRL form CD77) for each band and mode, if over 100 contacts on a band/mode.

Awards: Plaques to highest scoring stations: 1) Tennessee fixed, 2) Tennessee mobile, 3) Tennessee portable, 4) out-of-state. 1st Place certificates to highest scoring station in: 1) each state, 2) Canada, 3) DX country, 4) Tennessee Novice/Technician, 5) out-of-state Novice/Technician, 6) Tennessee phone only, 7) Tennessee CW only. Participation certificate to all stations submitting logs with at least 25 contacts.

Logs must be postmarked no later than 1 May 1983. Send business-size SASE with your log to ensure return (if desired), complete results, and any certificates earned. Mail to Oak Ridge Amateur Radio Club, Attn: Contest Coordinator, P.O. Box 291, Oak Ridge, TN 37830.

Rio CW QSO Party

The Rio CW QSO Party will be held from 1500 UTC Saturday to 1500 UTC Sunday, the last full weekend of March and October every year. This spring, the dates will be 26-27 March. Sponsoring the contest is PPC Picapau Carioca (Rio Woodpeckers CW Group), Box 2673-20001, Rio de Janeiro, RJ BRAZIL. All Brazilian CW groups are cooperating.

Call: CQ RIO PTY

Exchange: RST, QTH and name.

Frequencies: 3.510/.520, 7.020/.030; 14.030/.050; 21.030/.050, 21.130/.150, 28.030/.050 kHz.

IMPORTANT: No logs. Only sure and quick QSLing is essential.

DX-YL to North American YL

All licensed women operators throughout the world are invited to participate in the DX-YL to North American YL contest, which will be held in April. The CW portion lasts from Wednesday, 6 April, 1800 UTC to Thursday, 7 April, 1800 UTC; the phone portion lasts from Wednesday, 13 April, 1800 UTC to Thursday, 14 April, 1800 UTC.

Procedure: DX YL call "CQ North American YL," N.A. YL call "CQ DX YL."

Operation: All bands may be used. No cross-band operation. Net contacts, repeater contacts and contacts with OMs do not count. Stations may be worked and counted once on each band and mode.

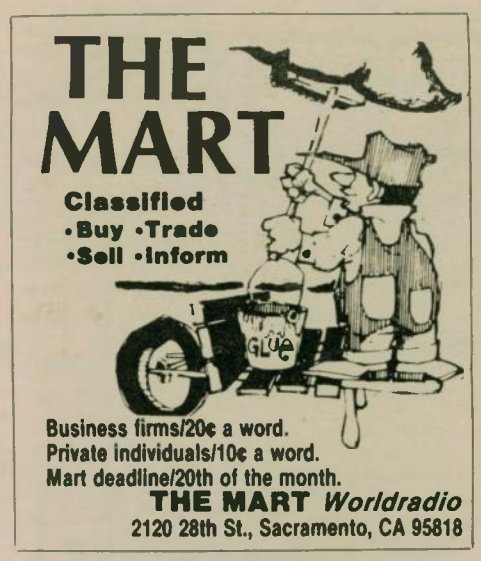
Exchange: Station worked, QSO number, RS or RST, state or country. Entries in log must also show time, band, date and transmitter power.

Scoring: A) Phone and CW will be scored as separate contests. Submit separate logs for each contest. B) DX-YLs, including Hawaii and Alaska, may contact all the North American continent, which includes the 48 contiguous states and Canadian provinces. C) Contestants on the North American continent (including the 48 contiguous states and Canadian provinces) may contact DX stations, to include Hawaii and Alaska. D) A station may be counted once on each band for credit and 1 point is earned for each station worked once on each band. E) Multiply the number of QSOs by the number of different states and provinces *OR* countries worked. A multiplier is counted only once in the contest. It is *NOT* counted on each band. F) Contestants running 150 watts or less on CW and 300 watts PEP or less on SSB, at all times, may multiple the results by (E) by 1.25 (low-power multiplier).

Logs: All logs must show state or country to qualify for awards. Do not send carbon copies of logs. Please print or type. *Logs must be signed by the operator,* and no logs will be returned. Remember to file separate logs for each contest. Logs must show claimed score and be postmarked by 28 April 1983 and received no later than 23 May 1983, or they will be disqualified. *Please send logs to:* YLRL Vice President.

Duplicates: For each duplicate contact that is removed from the log by the vice president, a penalty of 3 additional and equal contacts will be exacted.

Awards: Cup to 1st place DX phone; Cup to 1st place N.A. phone; Cup to 1st place DX CW; Cup to 1st place N.A. CW. Plaque to highest combined CW and phone DX score; plaque to highest combined CW and phone N.A. score. 2nd and 3rd place DX and N.A. winners in each contest will receive certificates.



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MULTI-BAND DIPOLE 160M-10M (WARC), single coax feed, Model KT5B $59.95, also KT7B Bal feed line KW Line — Order from KILO-TEC, P.O. Box 1001, OakView, CA 93022. (805)646-9645 Info Available.

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