WorldRadio

Year 13, Issue 6

December 1983 • 85¢

Among the amateurs assisting Red Cross disaster relief efforts in the recent southern Arizona fall floods were Dennis Cornell, WD4HRO (left), and Jim Steele, N7DZN, shown working in the Red Cross shelter in Marana Elementary School. ***(WD6ABF photo)***

Arizona floods

Amateurs aid Red Cross

Amateur Radio operators provided essential communications to the American Red Cross disaster relief efforts following the fall flooding in southern Arizona, according to Allan Whear, Director of the Red Cross Relief Operations in Tucson.

"In many areas, hams provided the only communications and greatly facilitated damage assessment, rescue operations, and the distribution of emergency and medical supplies," Whear said.

More than 100 radio amateurs provided assistance during the first 10 days following the devastating floods. More than 2,800 homes were damaged or destroyed, and thousands of people became isolated as Arizona rivers raged out of their banks following up to 6 inches of rain in three days — more than the yearly average in some places.

In addition to aiding the American Red Cross relief operation, ham groups furnished equipment and operators to the Arizona State Department of Public Safety, the Pima County Emergency Services and the Arizona National Guard.

Radio operators worked through the Arizona State Communications Van, operating 24 hours a day during the worst emergency period, to direct both National Guard and Department of Public Safety helicopters, which were performing rescues and airlifting supplies to the isolated areas.

Working with Red Cross disaster relief volunteers throughout the state, amateurs provided — in many cases — the only communications link to dispatch emergency and supply vehicles and damage assessment teams, and also described possible routes as literally hundreds of roads and bridges were out.

Fixed base stations were set up and manned by Amateur Radio operators at outlying trouble spots, including two Picture Rocks fire stations, Avra Valley fire station, Loma Vista, Marana High School and Thornydale Elementary School. These were in addition to the Emergency Operations Center, Red Cross Disaster Relief Headquarters and the Arizona ComVan — all in Tucson.

Mobile operators, critically needed in the field, were dispatched to Clifton, Safford, Green Valley, Maricopa and Casa Grande, plus other remote locations.

Amateur communications remained the only communication possible for several days in remote locations, and therefore handled all requests for Red Cross volunteers, supplies, medical emergency needs, and all shelter location information

While at least 35 radio operators remained busy with Red Cross efforts, more amateurs — particularly in the Tucson area — served in other ways, such as handling health and welfare inquiries to families all over the country using HF frequencies. The 2-meter band, including mountaintop repeaters, carried most of the emergency traffic within Arizona.

Among the Tucson area radio amateurs who responded to the emergency were members of the Tucson Repeater Association, the old Pueblo Radio Club and the Pima County RACES.

— Anita Yoder, WD6ABF, in cooperation with Jim Swafford, W7FF □

ARRL to act as VEC

The ARRL Board of Directors held its second meeting of 1983 on 5-6 October in Houston, Texas. The following resolution was unanimously ADOPTED.

WHEREAS, the continued availability of amateur license examination opportunities and the integrity of the examination process are both vital to the future of the Amateur Radio Service in the United States, and

WHEREAS, in its report and order in PR Docket No. 83-27 the FCC has outlined a volunteer examiner program in which ARRL participation as volunteer examiner coordinator (VEC) is both desirable and appropriate, and

WHEREAS, legislation is to be introduced which, if enacted, will permit the recoupment of out-of-pocket administrative expenses of a VEC, such recoupment being essential to ARRL participation, now, therefore

BE IT RESOLVED that the League participate as a volunteer examiner coordinator, such participation, however, only to commence upon governmental authorization for recoupment of VEC expenses and approval of any agreement between ARRL and the FCC by the Board of Directors.

In another regulatory matter, the League will petition FCC to adopt American National Standards Institute standard C95.1 1982 as an interim RF protection guideline and thereby establish federal preemption in this area. The ARRL will petition the FCC for RTTY privileges on the 160-meter band. The Board endorsed the concept of early IARU preparation for the next General World Administrative Radio Conference.

In other matters, the Board amended the bylaws to allow Technician Class licensees or higher and Canadian Amateur Certificate holders or higher to run for elective ARRL/CRRL office. The ARRL president was authorized to sign an agreement with the Quarter Century

(please turn to page 25)

Exam cutback

The FCC has announced that there will be an immediate cutback of all FCC Amateur Radio license examinations. Beginning in 1984, there will only be four exam periods per year. This will take effect throughout the United States.

The exam dates for 1984 are as follows: 6-10 February — deadline 15 January; 7-11 May — deadline 15 April; 6-10 August — deadline 15 July; 5-9 November — deadline 15 October. These dates will apply to commercial licenses, as well.

Any amateur interested in upgrading must send a Form 610 and a copy of his amateur license, interim permit or code credit certification, to the office where he plans to take the examination. These must be received by the FCC *no later than the deadline date* given for each exam period. (See above for deadline dates.)

Examinations will probably be given in a rented facility near the FCC office. Amateurs will be notified in advance of the exact day and time they are to take their exams. □

Grenada's link to world

Mark Barettella, KA2ORK, has been lauded as a hero and "the kind of guy to take charge" by those who knew of his efforts at informing the United States of the situation in Grenada, via Amateur Radio.

The 22-year-old former medical student of St. George's University crouched by his radio for 48 hours in late October, as the din of fighting grew around him, giving the world its first account of the battle for Grenada.

Until Tuesday, 25 October, Mark had used his radio only to call his family each week in Ridgefield, New Jersey, to chat and tell them what he needed in the way of food and supplies. But after U.S. forces invaded the island, that radio became the outside world's conduit to the scene of the fighting.

The American student described how the multinational invasion force, including 2,000 U.S. troops, turned the island's sweeping beaches and scenic mountains into a battlefield.

Amateur Radio operators in the United States began monitoring his transmissions as dawn broke, and soon the State Department and reporters barred from Grenada were peppering him with questions.

With touches of humor, he tried to assure anxious parents that other students were safe.

"We're still holding here — machetes in hand," he said at one point. Later he asked for "a shipment of about 4,000 White Castle hamburgers."

(please turn to page 34)

No third-party

The FCC has declared that the urgency of the communications emergency with the island of Grenada, West Indies, has subsided. Therefore, effective immediately, the FCC has cancelled — repeat, cancelled — emergency temporary third-party traffic authorization for amateur communications between Grenada and the United States.

The FCC further stated that there are no longer any frequencies, either amateur or non-amateur, set aside for emergency communications by amateurs with Grenada. Also, any previously authorized use of amateur CW subbands for telephony use between the United States and Grenada is now cancelled. — *ARRL* □

License extensions

Amateur station and operator license terms have been extended to 10 years (FCC's PR Docket No. 83-337). The renewal grace period is two years. The new license terms will be phased in as licenses come up for renewal. Details will appear in December 1983 QST. — *ARRL* □

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December 1983 Vol. 13, No. 6

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.

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Second-class postage paid at Sacramento, CA.

Rose Ellen Bills, N2RE

YLRL president

Rose Ellen Bills, N2RE, has been elected president of the Young Ladies' Radio League (YLRL) for the year 1984. Former offices she has held in YLRL are: receiving treasurer, 1976 and 1977; disbursing treasurer, 1978; new member editor for *YL Harmonics*, 1972 through 1975; secretary, 1982; vice president, 1983. Rose Ellen has been a YLRL member since 1968.

First licensed in 1957 with the call WA2FGS, Rose Ellen upgraded to Extra Class and her present call in 1971. Her club activity is not limited to YLRL, as she is a member of SAYLARC (secretary/treasurer); PJYL (secretary and editor of newsletter); Buckeye Belles, TASYL, TOTS and CLARA (associate member); Gloucester and Salem County Radio Clubs; and AWARE Club.

Rose Ellen is employed full-time as a secretary for E.I. DuPont de Nemours & Co., in the Wilmington, Delaware offices. And when she's not working or attending a club activity, she enjoys square dancing, bike riding, swimming, walking, craft work, and playing the piano and organ.

For the YLRL year of 1984, Rose Ellen has chosen as the motto — "FLEXIBILITY." Any YL who is not a member can receive information by writing to N2RE at 17 Craig Place, Pennsville, NJ 08070. □

ATTN: Novices

Donald Simmonds, K5BDX

Info about my trip to Island of Montserrat, 1-10 December:

I will operate the 15-meter Novice frequency (21.125 or 21.150 ± QRM) on Tuesday and Thursday nights, 06 and 08 December, from 2300 GMT until band closes. Also on Saturday and Sunday, 3-4 December at 1900 GMT. If I am on 21.150, I may be on SSB working Novices on CW. Please listen for me. □

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If you received this publication and are not a subscriber of WORLDRADIO, it was no accident. Please consider it an invitation to join. We can be very friendly.

New launch date

The STS-9/Spacelab mission, carrying Dr. Owen Garriott, W5LFL, and a 2-meter FM station, has been delayed for one more month. The launch date has now been set for 28 November, 11:00 a.m. EST (1600 UTC). □

Third-party traffic agreements

Clark Stewart, W8TN

Here is the list (as of 9/26/83) of the countries with which U.S. amateurs may legally handle third-party message traffic.

C5	The Gambia	V2	Antigua and Barbuda
CE	Chile	VE	Canada
CO	Cuba	VK	Australia
CP	Bolivia	VR6	Pitcairn Island
CX	Uruguay		(1)
EL	Liberia	XE	Mexico
HC	Ecuador	YN	Nicaragua
HH	Haiti	YS	El Salvador
HI	Dominican Republic	YV	Venezuela
HK	Colombia	ZP	Paraguay
HP	Panama	3D6	Swaziland
HR	Honduras	4U1	ITU ITU, Geneva
J6	St. Lucia	4X	Israel
J8	St. Vincent	6Y	Jamaica
JY	Jordan	8R	Guyana
LU	Argentina	9G	Ghana
OA	Peru	9Y	Trinidad and Tobago
PY	Brazil		
TG	Guatemala		
TI	Costa Rica		

(1) Informal agreement. See League Lines, October 1981 QST, for details.

FCC Rules and Regulations section 97.114 states in part:

The transmission or delivery of the following amateur radiocommunication is prohibited:

(a) International third-party traffic except with countries which have assented thereto;

and FCC Rules and Regulations section 97.3 (v) defines third-party traffic as follows:

(v) *Third-party traffic.* Amateur radiocommunication by or under the supervision of the control operator at an Amateur Radio station to another Amateur Radio station on behalf of anyone other than the control operator.

REMEMBER: Even if you are just demonstrating your radio to a neighbor, and while in QSO with a ham in (for example) England you let the neighbor talk to him or you pass on a question or comment from the neighbor to the English ham, you are in violation and subject to possible suspension, revocation and/or fines under the above-quoted FCC Rules. Clip out and post this list at your operating position and check it any time you may be involved in a third-party traffic situation.

— Jackson County ARC, Ripley, WV □

ATTN: NY-NJ-CT

The U.S. Coast Guard Reserve's Third Coast Guard District is actively recruiting radio operators for its units in New York, New Jersey and Connecticut.

Radio operators are needed to augment the regular Coast Guard in its missions of marine safety and environmental protection, search and rescue, and boating safety. These missions offer real-life situations in which radio operation can sharpen his/her skills on a part-time job that earns extra income. The Coast Guard is a small, active and proud organization that offers many other benefits to Reservists, including $35,000 term life insurance.

Anyone interested in more information about joining the Coast Guard Reserve can contact: LTJG Scott Bartlett, 15 Schoolhouse Lane, Old Bethpage, NY 11804.

— Suffolk County RC, NY □

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send **NEWS** and **PICTURES** to
Worldradio

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COLUMNS

The Halligan party

Ero Erickson, KA9DYS

Bill Halligan was once again honored at a luncheon, Saturday, 24 September at the O'Hare Kennedy Holiday Inn (Chicago) by his former employees, who arranged the now second annual Hallicrafter's Old Times Party. Over 200 people who formerly worked for Halligan, who started 01 January, 50 years ago on Chicago's South Indiana Avenue in an old building once occupied by the Echophone Company, reminisced about radio war production in the 1940's and the annual company picnics which were shown on 8mm home movie black-and-white film. Very young-looking people were shown cavorting in the park, playing softball and doing three-legged racing, who are by now grandparents, checking in from as far away as Massachusetts and California.

The whole series of events was arranged by former Chief Engineer Fritz Franke of Evanston and his former production-line ladies, one of whom was selected as chairperson for the 1984 get-together. It will probably be held at the same place in September, judging from the show of hands.

Of appropriate interest was the attendance by Chuck Dachis, WD5EOG, known as the "Hallicrafter Collector", who has over 300 pieces of Hallicrafters equipment in his home in Austin, Texas. All of these units have been restored and catalogued, starting with the S-1 Hallicrafters Skyrider receiver. It was built in 1932, had five tubes operating on four bands 15-23 MHz TRF, and sold for $39.95.

Included in WD5EOG's 18-page listing is the 1970 CR3000 solid-state AM-FM-SW with 30 watts of stereo receiver for $229.95. It was not made in Chicago, but in Japan. Your correspondent's favorite is the rare DD-1, which is a dual diversity receiver built before World War II and marketed for $500, bought mostly by radio amateurs from the 500-piece production run. Chuck has two in his collection.

He is looking for a larger building to house his museum, started in 1975 as a hobby. He is hoping for a sponsor. WD5EOG is equipped to get on the air, but lacks the time due to the pressure of refurbishing. He has service manuals but lacks complete information on many more models because the factory records were destroyed or lost.

Bill Halligan — now 85 — returned to Miami Beach, Florida in October, with the assurance that his company has many friends, even after being out of business for over 10 years. That's not like the current corporate image — that's family. □

This shot is as rare as some DX to the Amateur Radio fraternity because it shows a seldom-seen father-and-son combination. The father (right) is William Halligan, W9AC/W4AK, former owner of the world-famous Hallicrafters Company, who was again honored at the 2nd Annual Hallicrafters Ole Time Party in Chicago in September. The gentleman on the left, who is not a radio amateur, is William Halligan, Jr. Will the real Bill Halligan please stand? ***(Photos by Ero Erickson, KA9DYS)***

One of the attendees at the 2nd Annual Hallicrafters Ole Time Party in Chicago was Chuck Dachis, WD5EOG, of Austin, Texas. Known as the "Hallicrafters Collector," Chuck has over 300 models of original Hallicrafters equipment, which he's collected since 1976.

Fritz Franke, former chief engineer for the Hallicrafters Company and chairman of the arrangements committee for the Ole Times party near O'Hare Airport (Chicago), greets Irv Rose, a manufacturers rep who used to call on him back in the '40s. Franke is probably the best known non-ham in the radio business supplying ham equipment — if you are an ole timer!

Dr. John C. Fox, WB2LLB/4, of Mobile, Alabama, receives A5 Magazine "Good Image Award" 1983. ***(Photo by Ken Barber, W2DTC)***

A5 ATV Magazine award given

Dr. John C. Fox, WB2LLB/4, of Mobile, Alabama, has won the 1983 A5 ATV Magazine™ "Good Image Award." The award is presented to those individuals who demonstrate outstanding Amateur Television mode "personal achievements" in friendship and good will toward other amateurs.

The prestigious award was presented to WB2LLB by Mike Stone, WB0QCD, (editor/publisher of A5 ATV Magazine, and president of QCD Publications, Inc.) at the A5 National ATV Conference, held in September in York, Pennsylvania.

Dr. Fox's expertise has been in the creating, editing and sending of ATV videotapes to foreign radio TV amateurs in countries such as France, England, Scotland, Australia and Germany.

DX amateurs receiving Dr. Fox's videotape material have answered his exchanges with similar recordings of local ATV operations, samplings of commercial TV broadcasting, tours of the city, etc. Copies of Dr. Fox's collection of international videotapes are available to USATVS members via the A5 Videotape Library. (Send SASE to address below for details.)

Other A5 Good Image Award winners include Bruce Brown, WA9GVK; Charlie Spitz, W4API; Warren Weldon, W5DFU; Ernie Williams, WB6BAP; and Henry Ruh, KB9FO.

The A5 Good Image Award is just one of the many awards given to ATV/SSTV radio amateurs. The 1983 "A5 SSTV'er of the Year" award was won by Dr. Robert Suding, W0LMD, of Herndon, Virginia for his work developing the first 8, 12 and 25-second single-frame digital color SSTV systems.

Complete details of the York, Pennsylvania National ATV Conference can be obtained from A5 ATV Magazine, P.O. Box H, Lowden, IA 52255. □

December TRN

The Honeywell ARC's are pleased to announce the December 1 North American Teleconference Radio Net (TRN): Vern "Rip" Riportella, WA2LQQ, executive vice president of AMSAT, speaking on the Amateur Space Program. It is expected that amateur satellites, space technology and space missions will be discussed during the net. NCS for the net will be Jeff Brennan, WB4WLW, of the Honeywell and AMRAD ARC's, Washington, D.C.

Space is truly Amateur Radio's "new frontier." All amateurs will want to tune into the TRN. The net starts at 7:30 p.m. Central Time (local nets may begin earlier). For a complete list of stations and locations participating in the net, check the Compuserve "Hamnet" X10 Database, or contact the net manager, Rick Whiting, WØTN, at 4749 Diane Drive, Minnetonka, MN 55343 (SASE please). Most areas in the United States and much of Canada are covered by the net with two-way contact, even for mobiles and hand-held radios!

The TRN is the largest forum of amateurs bar none. Over 160 repeaters and base stations in the United States and Canada bring the TRN to over 75,000 radio amateurs across North America. And hemisphere-wide coverage is provided by AMSAT/OSCAR-10 (provided the satellite is accessible for uplinking from the United States during the net). Many amateurs have the opportunity to ask questions or discuss the topic with the featured speaker. SWLs and scanner enthusiasts also enjoy the net.

On 08 March 1984, the TRN subject will be "Amateur Radio and the Law" with the top ham lawyers as speakers. Past nets have featured Vic Clark, W4KFC; Joe Reisert, W1JR; and Barry Goldwater, K7UGA. The TRN brings together amateurs and their technical, social and political leaders to learn, to inform and to inspire. □

Radio club making (air) waves

Four years ago, there wasn't much to the Amateur Radio club on campus. It was stuck off in a corner of a room used to store old chemistry equipment and articles for the Sailing Club. The 20-year-old radio and one out-of-repair antenna made receiving even some rock'n'roll from Los Angeles radio stations a problem. And there weren't a whole lot of members.

It was then that Jim Hoffman '83 arrived on campus with an interest and background in Amateur Radio and a desire to see an active club on campus. Now you just wouldn't recognize the old club.

The storage room has been cleared of the chemistry and sailing paraphernalia, the old radio has been replaced with the most up-to-date equipment, and the crumbling antenna has given way to a sophisticated system that gives club members the ability to talk all over the globe.

Hoffman wasted little time when he arrived on campus in building up the club. He organized a freshman project to redesign the antenna system, and it's been steady improvement ever since.

Now there are about 15 members in the club, eight of them very active.

"This is a club where people need to put in some time," Hoffman said. "It takes about four months to get your license, and a lot of people just don't have that kind of time to spend."

But there are those who do. Peter Barbour '86, secretary of the club, has organized another freshman project around the club this year. There are six freshmen involved in setting up an antenna switching network with Barbour as team leader.

Although it takes time to produce a license, there are advantages to belonging to the club. Fernando Urbina '83, for instance, uses the equipment to speak to his father in Costa Rica each week. And a Scripps student calls her parents in Rio de Janeiro.

The club's president, Jae Kim '84, makes calls to relatives in Korea and also makes numerous contacts in Japan because he is learning the Japanese language.

"We want to make this an educational club," Hoffman said. "Jae not only is learning Japanese, but his English is vastly improved since he became active in the club."

While most of the club's members are involved for the shortwave experience, at least one is interested more in the hardware.

Mark Vande Pol '85 likes to tinker with the equipment and is considering starting another club for others like him.

All the work has been done by the club, and the members raise their own money. One of two radios now being used belongs to Hoffman, but he gave the other one to the club.

"We raise money and get equipment in a variety of ways," Hoffman said. "We get donations from other hams, from stores and from companies. Most of the tools the club members use were donated by the members themselves."

The club was begun in 1959, according to the records Hoffman can find, and was active from then until 1965, again in 1968-69 and from 1975-76. And although Hoffman was to have left the college this year, the club probably will continue to be a force as most of the rest of the active members are underclassmen.

—Harvey Mudd College Bulletin, Claremont, CA □

• Silent Keys •

Ralph Hicks

Ralph Hicks, W5BCO, radio pioneer and long-time TARC, QCWA and ARRL member died Friday, 19 August. A product of the Golden Age of radio, he was 73 — an outstanding inventor and an avid practitioner of the radio art.

Hicks was born in Indianapolis, Indiana on 01 October 1909, and grew up on a farm near Meeker before moving to Tulsa, Oklahoma, where he worked in early-day radio shops.

In 1930, he was hired by the Tulsa Police Department, where he pioneered and introduced the nation to mobile radio operations. His installation of low frequency equipment in the department's vehicles was a first and made radio history. During World War II, he served as an Army Air Corps radio instructor.

Hicks developed the equipment and technique for interfacing mobile radio units with telephone systems and fought a continuing battle with the telephone company over the right to use this innovation, which led to the U.S. Supreme Court.

The high court, in the Carter decision, ruled in his favor which opened the door for further development and wide-spread use of autopatch equipment.

After 17 years with the Tulsa Police Department, he retired from service to open his own business. In the 1950's, he invented a pocket pager which employed the use of a receiver and tape recording device. He sold his business in 1965.

Hicks was the holder of an Extra Class Amateur Radio license, and when failing health and blindness forced his retirement, he turned his full attention to his hobby.

He was an excellent conversationalist and had the unique ability of instantly understanding complex electrical devices and systems without the benefit of schematic diagrams. When he could no longer see, he developed a method of radio frequency identification which did not require the use of sight and continued to maintain his activity in the hobby. He was especially active in marine mobile communications.

During his later years, he found it more and more difficult to attend meetings and public events, but stayed abreast of local happenings and developments in the electronic field.

—Tulsa ARC, OK; info sent by Ernest Buck, WB5CDW □

Needed by VOA

The Voice of America will modernize 10 overseas relay stations and begin construction on new stations abroad this year. They are now seeking senior executive engineers: Deputy for Systems Engineering; Deputy for Operations; and Chief Broadcast Systems Engineering. All positions require advanced degrees, MS or Ph.D. in electronic or electrical engineering, state-of-the-art technical experience, and U.S. citizenship.

Send resumes to: Voice of America, Director of Engineering, P.O. Box 1625, Washington, D.C. 20013. □

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it has features never before available in one handheld, it's made in the USA and it's priced right!

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Do their handhelds have memory lockout?
Exclusive memory lockout on the TEN-TEC 2591 allows scanner to temporarily bypass channels for quick lockout of busy frequencies yet retain them in memory for normal operation on demand.

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Do theirs offer modifiable Band Scan without complete reprogramming?
With the 2591 you can scan any section of the band with user defined upper and lower limits in steps of 5, 10, 15, 25, or 30 kHz. Change step size, upper and lower limits independently. Manual Scan also, up or down, in 5 kHz steps.

Do theirs have Quick-Release NI-CAD Battery Pack?
The 2591 battery pack slides off easily, yet is secure in use, has a heavy duty 450 mAH rating at 8.4v, and the 2591 has capacitive memory retention to permit pack changing without reprogramming.

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Special Events...

Pearl Harbor

Members of the Pearl Harbor Survivors Amateur Radio Net will man their net frequencies during the following times on 07 December: 1230Z-1430Z on 7.280 MHz; 1630Z-1930Z on 14.283 MHz; 2000Z-2300Z on 21.363 MHz; and 2100Z-2300Z on 28.875 MHz.

Net members will be available to discuss their experiences during the surprise attack on Pearl Harbor on 07 December 1941. □

Bethlehem

The Triple States Radio Amateur Club will operate from Bethlehem, West Virginia, 16-17 December, 1400-0200 UTC daily. Operating frequencies for WD8DDL/8 will be 7.275, 14.325, 21.425 and 28.550 MHz on SSB; 7.110, 14.075, 21.110 and 28.110 MHz on CW; and 14.095 MHz on RTTY.

A special holiday certificate will be sent to all those contacted who send an SASE to TSRAC, 26 Maple Lane, Bethlehem, Wheeling, WV 26003. □

Christmas, Florida

The Coronado Wireless Association will operate station K4HML as a special event station at Christmas, Florida on 17-18 December, from 1600Z to 2200Z on Saturday, and from 1600Z to 2000Z Sunday. Frequencies will be the low 10 kc of the 40, 20, 15 and 10 mc bands.

A QSL will be sent for your QSL and SASE. Mail to: Duane van Winkle, K4HML, Box 1, Edgewater, FL 32032. □

5BDXCC with a vertical

Bill Stempel, W1BBJ

So you don't have a linear or an antenna farm, and you don't think you can earn 5BDXCC? Think again.

When I first thought of trying for 5BDXCC, one look at my mini-backyard made me very hesitant. However, a lot of DX stations had verticals with good signals. A vertical would fit, but it had to go into a corner.

Reading over the specs of various verticals, my choice was the Butternut 5-bander. As I'm surrounded by houses, ground-mounting was ruled out. The antenna was mounted on a mast with a hinge. The addition of a counter balance made it easy to lower the antenna for minor adjustments. Since the counter balance was 10 pounds lighter than the vertical, handling it was easy.

With a corner location, the radial spread was 90 degrees instead of 360 degrees. Six radials were used. They hung down at about 45 degrees. Antenna height? About 65 feet. The rig, an old Drake 4XB, input 200 watts; receiver, Drake R4C.

It was a pleasure to find the antenna perfomed well with good response in pile-ups. Chasing after DX with a 5-band vertical was a challange and a lot of fun.

Earning 5BDXCC is five times harder than DXCC, right? Wrong! At least for yours truly, getting over 100 countries on 80 meters was twice as hard. Speaking of 80 meters, two rules apply to collecting your countries. First, lose sleep. Second, lose more sleep. Maybe one night you'll stay up late for Europe, South America and Africa. Another day, you're up before dawn chasing Asia and the South Pacific.

It was worthwhile working in a weekend contest and finding my total was 45 different countries. It may not sound like much to some hams, but it was my best effort up till then. Proudly, I phoned my friend and neighbor, David Crawford, W1IAN. He was also in the contest. Thought I would do a little bragging. "Dave," I asked, "how did you do in the contest?"

"Not too badly, Bill," Dave replied. "I worked 50 different countries. How did you do?"

"Just so-so," I replied.

Another time, when QSB was bad, a European station gave me RST 449. Next time around, he said, "I see you turned your antenna. You are now 589." "No," I answered, I did not rotate my vertical."

One morning before dawn, I checked the bottom of 80 meters for DX. The South Pacific was absent and a pile-up was in progress. The U.S. gang was calling a V3. Idly, I listened, not joining in because I already had Belize. Suddenly, I almost fell out of my chair. W1BBJ was calling V3! It was me, the V3 confirmed. It's a weird feeling to hear someone using your call. Why couldn't he work Heard Island? I sent a letter to the FCC, advising them of the incident, hoping Slim would not repeat his performance off frequency.

Periodically, a batch of QSLs would arrive from the W1 QSL bureau (a great service well performed). One batch had a card to W1BBJ. However, the letter J was vague and did not fit the log. Perhaps the J was a U. I forwarded the QSL to Frank Hales, W1BBU (now a Silent Key), in case it was his card. I wrote, "Hope to QSO you one day."

Frank answered, yes it was his card and added, "Bill, you hope we QSO one day. Boy, you sure have a short memory. We had a QSO 49 years ago!" He forwarded my original card to prove it.

Most of the DX stations on 80 meters CW are between 3500 and 3515 kHz. An Extra ticket is a big help. Have found that QSL response on 80 is good. Perhaps the DX stations know it's more important.

About halfway through the effort, I calculated 5BDXCC would gather in about 200 different countries, and that's about the way it came out. However, this will probably vary with operators and locations.

It took three and a half years to work enough stations, but it also took several months for the QSLs to drift in. Butternut, I found, was always helpful whenever I had questions. QRM, QRN, QSB and QRT were not strangers, but it was all still enjoyable.

The 5BDXCC plaque on the wall reminds me of the many hours of pleasure. And last — but not least — if I can, so can you! □

Aileen Gagnon, WA8DHB

Michigan AR Lady of the Year

The recipient of the 1982 Michigan Amateur Radio Lady of the Year Award was Aileen Gagnon, WA8DHB, of Gladstone, Michigan.

Aileen has been a very active member of the Amateur Radio community since she was first licensed in April of 1962. Her particular area of interest is public service communications, and she is highly involved in various aspects of the National Traffic System. Aileen is an Assistant Section Manager (for Michigan's Upper Peninsula), official relay station; net manager of the Upper Peninsula (U.P.) Net; member of the TASYL, UPYL, MACS and MITN Michigan nets; is a net control for the MITN; and is active on the MATW (Michigan Amateur Traffic Workshop). She is also very active in emergency communications and is net control for the U.P. ARES net, as well as prime organizer for net activities during the Simulated Emergency Test.

Aileen has received two certificates of merit from the ARRL and is past president of her local radio club, the Delta County Amateur Radio Society, and is a member of the local repeater association.

During her very rare, spare moments, Aileen keeps a constantly updated card file of all the U.P. hams. This is used to print an annual U.P. ham directory.

The Michigan Amateur Radio Lady of the Year Award is presented each year at the ARRL state convention in Muskegon, Michigan, by the Section Manager. □

FFAR scholarships

The Foundation for Amateur Radio is pleased to announce the 1983 winners of the 14 scholarships which it administers.

The John W. Gore Memorial Scholarship — $900
Richard E. Church, Jr., WA2YMS, Central Square, New York

The Richard G. Chichester Memorial Scholarship — $900
David J. Schmocker, KJ9I, Oconomwoc, Wisconsin

The Edwin S. Van Deusen Scholarship — $350
Jeffrey D. Girton, WB3GCH, Selinsgrove, Pennsylvania

QCWA Silent Key Memorial Scholarships — $500 each
Bruce A. Wade, N9UR, Milwaukee, Wisconsin
Marc Vernon, KI9V, Hinsdale, Illinois
Paul D. Sargis, KI6U, Modesto, California

Radio Club of America Scholarship — $500
Theodore S. Rappaport, N9NB, West Lafayette, Indiana

The Edmund Redington Memorial Scholarship — $500
Steven J. Gies, KA9EHI, Stevens Point, Wisconsin

Young Ladies Radio League Scholarship — $300
Pamela Sue Hayward. WB0MUS, Kansas City, Missouri

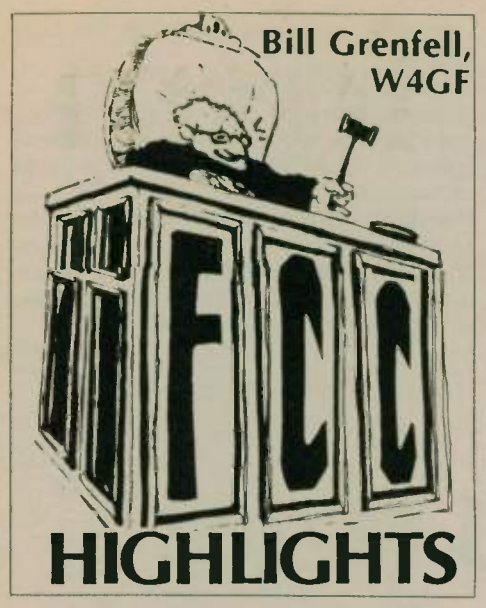
Amateur Radio News Service Scholarship — $500
William J. Bishop, N0EBA, Ottumwa, Iowa

Columbia (MD) Amateur Radio Association Scholarship — $500
Robert Peterson, KA3DJV, Potomac, Maryland

Baltimore (MD) Amateur Radio Club Scholarship — $500
Armen Caroglanian, AK3K, Silver Spring, Maryland

Dade Radio Club Tropical Hamboree Scholarships — $500 each
Wayne F. Poole, KC4XL, Surfside, Florida
Peter F. Sinkowski, KD4NM, Surfside, Florida

These scholarships were open to all radio amateurs meeting the qualifications and residence requirements of the various sponsors. The Foundation is a non-profit organization representing 50 clubs in Maryland, the District of Columbia and northern Virginia. It is devoted exclusively to the scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.



Did the FCC provide a loophole to change power output measurement methods without going through a rule making proceeding? In its PR Docket No. 82-624 Report and Order which it adopted 18 July, FCC stated:

" . . . we need to choose a measurement standard for output power that both the amateurs and the Commission recognize as valid. By this order we are choosing and publicizing such a standard. It is: The output power will be determined while the station is operating as indicated by: 1) the reading of a thru-line peak reading radiofrequency (RF) wattmeter, properly matched, or 2) calculation of the power using peak RF voltage as indicated by an oscilloscope or other peak reading device. Should we decide upon other standards in the future, we will release them in public notices."

Quoting that last sentence, ARRL followed with the statement that it " . . . fears that changing substantive standards in this manner would totally eliminate the chance for public comment that should be available in an administrative rule making proceeding." (from the 01 September 1983 *ARRL Letter*)

It should be noted that the above-quoted "standard" does not appear anywhere in the amended rules! An FCC-issued Erratum advises that it failed to include the power limit for beacons in the Order. It is 100 watts PEP. While the power level specified for operation in the Novice bands (for all classes) is switched from 250 watts input to 200 watts output, operation in the 10 MHz band must remain at 250 watts input until this band is included in the Amateur rules. Joe Schroeder, W9JUV, points out via the August 12 *Westlink Report* that operation in the 10 MHz band " . . . is by special waiver and is not governed directly by the Amateur rules."

•

Experimental radio services licenses have been granted to Amateur licensees for operation in the 18, 24 and 902 MHz bands allocated to the Amateur Service. They are not presently available for regular Amateur operation, pending further implementation of the World Administrative Radio Conference (WARC-79). Transmissions for experimental purposes can be authorized in these bands via a license in the Experimental Radio Services under Part 5 of FCC's Rules, from

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 01 October 1983.

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.

Radio District	Group A	Group B	Group C	Group D
0	NCØT	KDØKU	NØFAM	KAØRLM
1	KS1Z	KB1KL	N1CVQ	KA1KWS
2	ND2C	KD2CU	N2EOU	KA2TJN
3	KQ3Y	KC3KJ	N3DQM	KA3LRT
4	WV4Q	KI4AC	N4JJM	KB4HFU
5	NK5V	KE5HN	N5GLT	KA5SDF
6	NV6D	KF6OO*	N6JMK	KB6CGJ
7	NE7E	KD7PM	N7FRU	KA7RIE
8	NF8X	KD8MH	N8FIM	KA8TFE
9	KY9J	KD9ER	N9EFI	KA9QNC
N. Mariana Islands	AHØD	AHØAB	KHØAF	WHØAAG
Guam	AH2S	AH2AV	KH2BJ	WH2ADW
Johnston Island	AH3A	AH3AC	KH3AB	WH3AAC
Midway Island		AH4AA	KH4AD	WH4AAF
Hawaii	WH6N	AH6FC	KH6VZ	WH6AXR
Kure Island			KH7AA	
American Samoa	AH8B	AH8AB	KH8AC	WH8AAO
Wake Wilkes Peale		AH9AA	KH9AB	WH9AAA
Alaska	WL7Z	AL7FL	NL7CS*	WL7BAX
Virgin Islands	KP2J	KP2AS	NP2AX	WP2ADM
Puerto Rico	WP4C	KP4HE	NP4JZ*	WP4DBT

*The computer missed the following call signs and they are loaded in the following sequence:
After KG6DZ is issued Group B Blocks KF6MA-KF6PZ & KF6VA-KF6ZZ will be issued.
After NL7CZ is issued Group C Blocks KL7TA-KL7TZ & KL7YA-KL7YZ will be issued.
After NP4JZ is issued Group C Blocks NP4HA-NP4HZ will be issued. □

their Office of Science and Technology, Washington, D.C. 20554.

•

The ARRL has filed a "Petition for Partial Reconsideration" of the prohibition of an amateur administering a Novice test to a person employed by the same company. (See FCC's Report and Order in Docket 82-727.) ARRL also asked for clarification of the extent to which an in-law relationship acts as a bar to eligibility to act as a Novice examiner.

•

The FCC has denied a request from manufacturers of cordless telephones operating just below 1800 kHz for a power increase for increased range. (*Westlink Report*, 12 August)

•

The ARRL has filed a motion with the FCC for expedited action on its petition for rule making (RM-4040), requesting that cable TV operation be removed from channels E (144-150 MHz) and K (222-228 MHz).

The original petition stemmed from the volume of complaints from amateurs about excessive leakage from cable TV systems all over the country. Noting that the "Amateur Radio community has made every conceivable effort to work with the cable industry through its trade association, the National Cable TV Association (NTCA) . . .," ARRL states that: "It appears that NCTA did not seriously intend to participate in resolving interference problems . . ."

Answering Storer Communications (cable) system's claim that it had filed "outdated information" concerning Storer cases and complaints, ARRL stated: "The information cited in the Motion was as accurate as anyone could expect. The cases of interference reported are still unresolved in the sense that interference still exists, regardless of any effort which may have been made in one or two cases to resolve the same."

ARRL also rebutted an affidavit filed with the Storer document by a Storer staff engineer, who called for "cooperation" on the part of amateurs who should turn their beams away from the interference, drive vehicles with equipment installed away from leakage spots, and avoid frequencies where leakage is greatest. (from the *ARRL Letter(s)*, 18 August, 01 September 1983)

•

The ARRL has requested that the FCC eliminate the two rule sections which make the sale of commercial external RF power amplifiers that operate between 24 and 35 MHz illegal. The request was filed as the League's comments on FCC General Docket No. 83-114, a Notice of Inquiry and Proposed Rulemaking on a re-examination of technical regulations. The rule sections are 2.815(b) and 97.77(c). The prohibition was originally imposed to help combat the widespread use of illegal power amplifiers in the Citizens Band Radio Service, mostly between 26 and 28 MHz.

•

RACES operation should be allowed in the entire 144.50-145.50 MHz repeater subband, instead of just 145.17-145.71 MHz, according to the ARRL. This was included in the League's comments, otherwise in support of the FCC's PR Docket 83-524 proposal to expand the number of frequencies available for operation in RACES during a declared national emergency. Under FCC's proposal, the entire 146-148 repeater segment would also be available for RACES.

"The expansion of VHF and UHF frequencies especially brings the RACES rules up to the level of present technology by permitting use of the numerous repeaters available in most areas of the country in time of declared national emergency," the League said. (*ARRL Letter*, 04 August 1983) □

OFF THE AIR

Help needed in search

My retired Marine son spotted the article in the October issue: "Help wanted in locating war buddy." He asked me to make a similar request for him.

The man he is seeking is Abe Abnaczanskas who was an avionics NCO in H&MS-11 at Stsugi, Japan in 1957-58 and operated MARS via KA2MA. My son is Sgt. C.B. Williams, USMC Ret. His address is 5014 Nicholson Rd., Vancouver, WA 98661.

J. R. TOWNSLEY, K7SUX
Vancouver, Washington □

What can a dollar do these days?

I have noticed lately that the junkyard prices of discarded automobile batteries have been reduced to the very low price of 50 cents each. Many of these batteries, when tested with wires attached to their terminals and held away from the battery vent caps, and when the two wires are touched together and there are some healthy sparks, the battery has a good chance of being usable for solid-state gear (homebrew or store-bought) that requires low-drain current at 12-13 volts.

Also in the junkyards and town dumps are many discarded TV sets and radios and stereos — some of them defective and considered not worth the cost of repairs. These can often be obtained at no charge, and the wire from the TV transformers and TV picture yokes can be used to build all kinds of antennas, or to wind homebrew coils. Many times, there are good coil forms that can be used over and over.

There are almost enough parts in a discarded TV set to build a simple radio transmitter, as well as a simple tube-type regenerative radio receiver and battery charger, using the power transformer from the junk TV set. You only need to buy a diode, electric cords and switches — also from a junk TV set. Use just the 12 volt windings and tape up the other wires for safety's sake.

It's easy to see that amateurs could build gear and get on the air for almost nothing — maybe a dollar or two.

KENNETH HAND, WB2EUF
East Hampton, New York □

Trappers learn code

I recently purchased my second Argonaut 509, advertised in THE MART of July Worldradio by Lt. Cmdr. David B. Osburne, WB6LNL, of La Mesa, California.

It is an excellent transceiver which I am using as a training aide to volunteer train Novice Class Alaskan trappers living on Yukon River below Eagle, Alaska. I'll call the free class "Billy Mitchell Code Course" in honor of Lt. Billy Mitchell, who was assiged at Eagle, Alaska in early days to lay telegraph line to Valdez and north to Nome.

JOHN TRENT, KL7DG
Anchorage, Alaska □

ANOTHER award?

In re: "German award hunters club," Worldradio, page 15, August 1983, by Al Libby, KB1FK

What I have learned from the somewhat lengthy story about the German award hunters club (DIG) is that for the proof of 25 Amateur Radio awards — including three awards from the DIG program — you get another award, the DIG diplom. What a weird world!

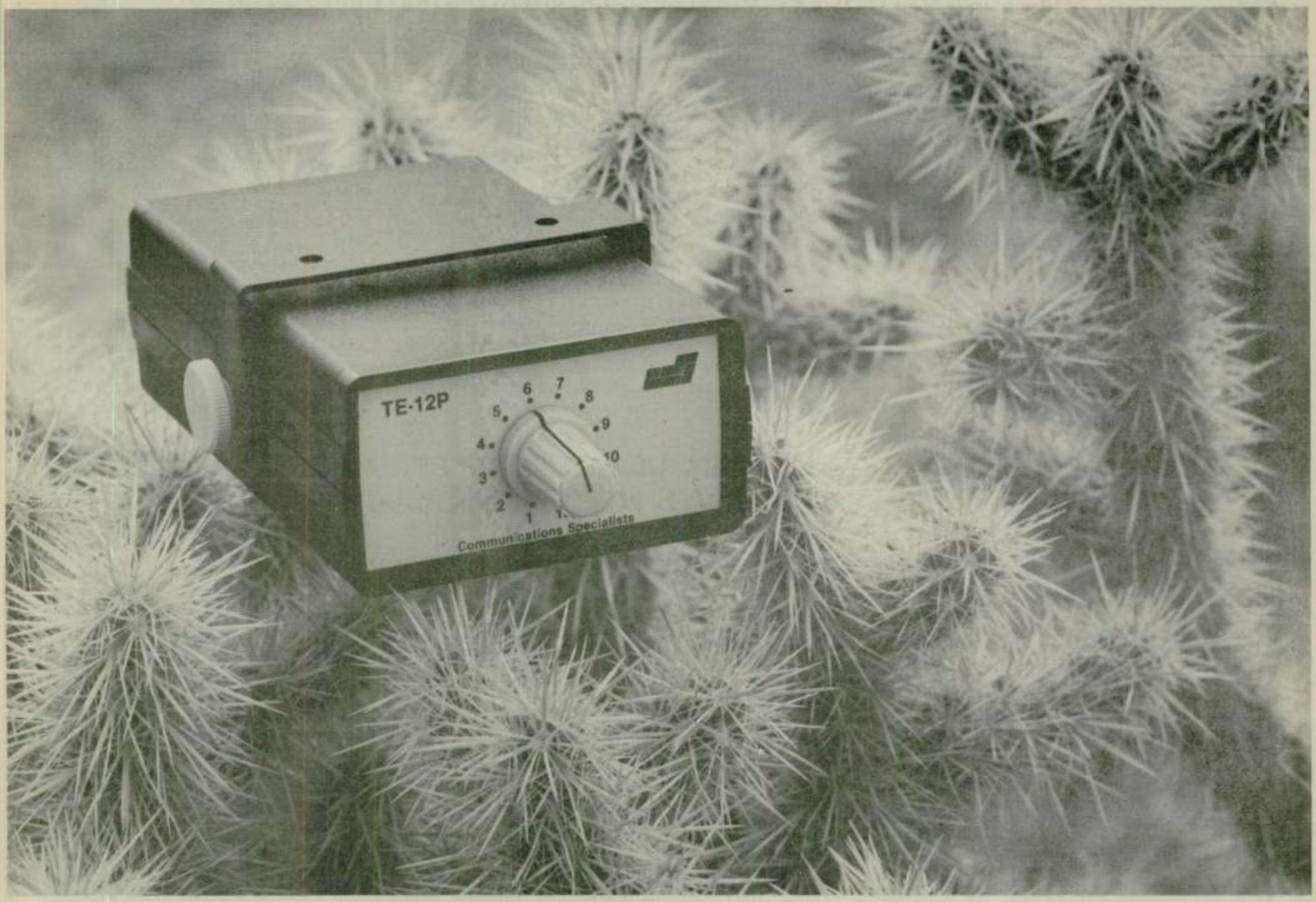
RALF BEYER, DJ3NW
Braunschweig, WEST GERMANY □

Some amateurs don't have a choice

Thousands of words have been written for and against the no-code license. Some of the thoughts state: 1) You get through with code, when other modes fail. 2) Without code, amateur bands will soon sound like CB. 3) Code is the essence of Amateur Radio; without it we would soon lose our identity. 4) Code instills pride. 5) A code requirement is the price for admission. It is human nature to disrespect something you get for nothing. 6) It is impossible to "cram" for a code test; you learn respect for your license.

To all of such, the no-code group answers, "Who cares — I can pass a theory examination. That is enough for my purpose." And the FCC seeks to give it to them, and — at one point — the ARRL came very close to giving in to it. *Yet, the FCC has not entirely denounced their original precept — that it is well for Amateur Radio to permit code, even on the phone bands.* Almost without excep-

(please turn to page 12)



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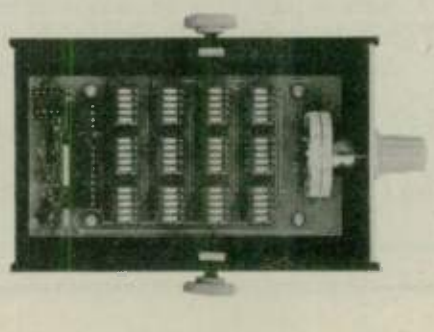

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74.4 WA	91.5 ZZ	110.9 2Z	136.5 4Z	167.9 6Z	
77.0 XB	94.8 ZA	114.8 2A	141.3 4A	173.8 6A	
79.7 SP	97.4 ZB	118.8 2B	146.2 4B	179.9 6B	
82.5 YZ	100.0 1Z	123.0 3Z	151.4 5Z	186.2 7Z	

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Off the Air

(*continued from page 10*)

tion, gear used principally on phone — now considered "modern" — has code capabilities. This applies to most of the new hand-held gear as well.

In such respect, Amateur Radio has come a long way, compared to what the manufacturers, in some instances, were pushing out after the close of World War II. Really sounds good, doesn't it, that code has been given such consideration?

Yes, it does, but before your amazement cools, have you tried to learn just how many amateurs we have in the United States who because of being deaf or having impaired hearing, *must depend on code* for all their communications?

Seemingly only a few weeks ago, the FCC and the ARRL did not even have estimates. Now, several weeks later, one of the ARRL staff took the estimates for deaf and hearing-impaired within the United States and worked out an estimate (based on an estimate). His estimate is that at least 24,000 amateurs in our U.S. amateur community *depend* on code to communicate on the amateur bands. How many more might be included if an actual count were made must *officially* depend on the FCC, perhaps with the help of the ARRL.

Isn't it about time to know how many *must depend on code?* It is *not their* "preference!" There is a difference, isn't there? Let us remember such forgotten hams!

ARMOND BRATTLAND, K6EA/Ø
Bemidji, Minnesota □

Defense of spectrum abuse article

Your September issue contained a visceral attack (page 10) directed at my recent article on spectrum abuse by maritime mobiles. (See June **Worldradio**, page 14.) The criticism — written by Bernie Mogal, J6LDZ, an American residing in St. Lucia — turned out to be an indictment against the very illegal radio operation he apparently wishes to protect. His pathetic dribble and blatantly false remarks stand as an example of the way Amateur Radio is heading if the proponents of no-code have their way.

Both J6LDZ and his wife were given licenses in St. Lucia, contrary to treaty, without ever taking an examination for either code or theory. He would now have us believe that having a call sign somewhere makes him qualified everywhere. His no-code, no-theory entry into Amateur Radio appears to be directly proportional to his obviously distorted views on the basis, purpose and scope of Amateur Radio as mandated by law in every nation of the world by treaty.

J6LDZ's lack of comprehension is carried to his daily 40-meter yachting net where he aids, abets and protects the cruising yachts as they flit from harbor to harbor. The fact that they do so, in many cases without the benefit of proper license, is visibly of no concern to him. There remains a litany of illegal third-party traffic, illegal business communications, or just pirated call signs. Most of the illegal operation is engaged in by American citizens. This happens in the region of the world where United States prestige is held hostage by the callous acts of the so-called "ugly American."

The published remarks of J6LDZ, if allowed to remain unchecked, will have the unfortunate effect of generating and compounding more spectrum abuse. As a result, please afford me the necessary space to respond to his 12 wandering, confused and disjointed remarks.

1) My statement that no country can license the operation on the high seas on the flag vessel of another is correct and consistent with law. 12UST 2525, TIAS No. 4893 (enclosed *Exhibit A*). The letter from a Miami FCC engineer was incorrect, and in an enclosed interview, EIC, Theimer states, "It never occurred to me that the flag of the vessel would have anything to do with the sovereignty of the country. I read jurisdiction of a foreign government; it never occurred to me that the vessel, a foreign vessel, would fall under that category . . ."

KV4FZ: "You can see that it does?"

Theimer: "Yes."

KV4FZ: "That the flag of the vessel extends the sovereignty of that country to the vessel."

Theimer: "Yes, because they have to comply with that country's requirements on the vessel." (*Exhibit B*)

What is despicable is that J6LDZ has copies of a letter from Personal Radio Bureau Chief James McKinney's letter that corrects any wrong impression that may have been left by the Theimer letter, but rather sought to use the letter to support Amateur Radio piracy. (*Exhibit C*)

2) My article stated, "When you hear a foreign call sign on a U.S. boat in international waters, you have most likely encountered a pirate." A U.S. vessel in international waters is bound by U.S. law. As a result, a foreign call is not in itself valid. J6LDZ did mention several interesting calls, claiming them as support for my comment that there was reason to question their operation.

First of all, *VP2EL* and *KD8CE* are one and the same. The licensee is a British citizen who, for whatever reason, has not been licensed in England. He cannot operate on the amateur bands legally with a license provided by some other country in areas where their sovereignty does not extend. His Anguilla call sign, by his own admission, cannot be used "maritime mobile". (*Exhibit D*) This subject stopped pirating the VP2EL call and now exports the U.S. call KD8CE for operation across the Caribbean.

KH6NW has operated "maritime mobile" in international waters aboard an Australian flag vessel. Sorry, the United States can not abrogate Australia's right to license its own citizens in places where their sovereignty extends, and it does not extend to Australian flag vessels in international waters.

WA4CWG operates aboard a U.S. vessel, *Tally Ho*, and by his own admission, changes to using J6LOX/mm2 just so he can operate in portions of the phone band which is prohibited to his U.S. license. This subject has been active from the Republic of Panama for the past four months.

Please review the enclosed documents (*Exhibit E*), which support my observations that his operation in the San Blas and Las Perlas Islands were done without "express authority," as required by law. P29PA and VK2EFC are also one and the same. The operator was at first using the P29PA call sign aboard an Australian flag vessel, *Dulcina*. This call sign, according to the Port Moresby Telecom Chief, was never valid for use aboard a vessel "maritime mobile".

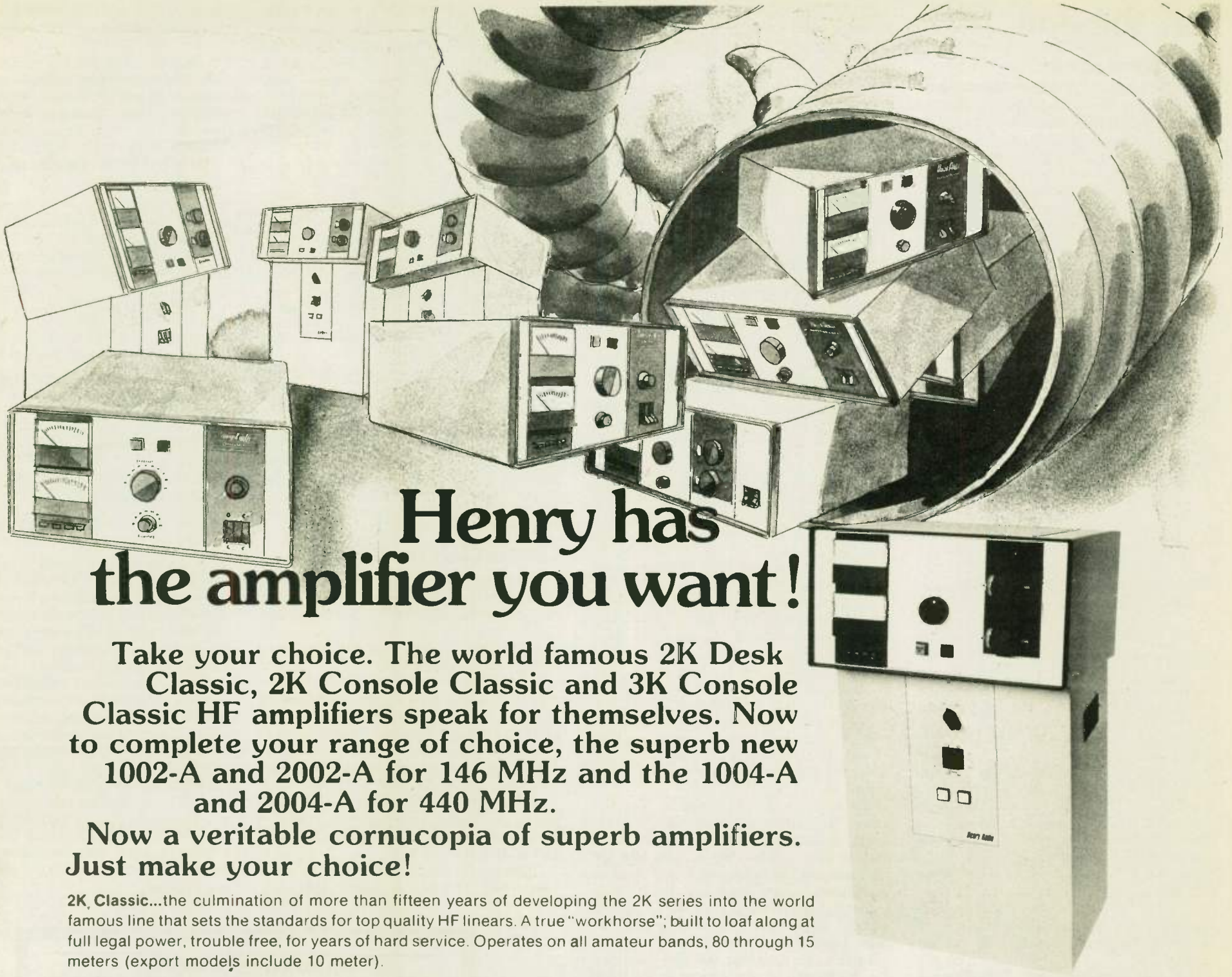
J6LDZ ignored this fact, even though he was confronted directly on 14.313 MHz by P29JM with these facts. The original culprit, P29PA, did subsequently stop using this call and is now signing VK2EFC. This is a bit more credible for an Australian on an Australian boat; however, he was heard frequently operating from both Venezuela and Panama, but according to reliable sources, never got the "express authority" to operate.

VEØMJK is an Australian citizen operating aboard a Canadian vessel. There is only one slight problem. When he operates from the United States as he did, he violates the terms and conditions of the treaty between the United States and Canada, which requires citizenship in either country. (*Exhibit F*) Part 97 Appendix IV FCC Rules.

8P6QM is, I believe, a shore-based station who is licensed by Barbados and is a valid station, as far as I know.

3) J6LDZ rushed to defend his net when my article referred to many nets. When J6LDZ hears that a P29, ZB2 or ZD7

(*please turn to page 14*)



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2004-A is identical to the 2002A except that it is set up for the 430 to 450 MHz band. This amplifier will use a ½ wave strip line and offer all of the same specifications as the 2002A. This will replace our limited production 2004.

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Off the Air

(*continued from page 12*)

used MM2 in the Caribbean and the guy tells him he is in Castries St. Lucia, J6LDZ cannot find any reason to question this station's validity. Again, this is the misguided reasoning of someone who does not understand the issue of license sovereignty. On his net, some of the combinations are really laughable when you consider a South African yachtsman using a Liberian call sign (EL2FW). Or how about an American yachtsman using VP2SUL and VP2LUV? Both these prefixes were dropped after the respective country gained national independence years ago.

4) J6LDZ asserts that if my accusation were true, I could give you the name of the boat, the call sign and the name of the yachtsman. Well, I can! (*Oriental Princess*, U.S. reg., John J6LMU) OK?

5) J6LDZ says he "doesn't know of any country that will issue a call by mail." Good! And I'm not going to tell him about the many places you can still get an Amateur Radio license by mail. This information in the wrong hands will facilitate more spectrum abuse.

6) Exporting call signs is in violation of both ITU and Part 97 of the FCC rules. Citizenship requirements associated with treaty is a well-established fact. (*Exhibit G*)

7) If J6LDZ feels he should travel to foreign countries without his passport, he has my best wishes. If he wants to enter a country with a passport from a place of which he is not a citizen, he has my deepest sympathy.

8) The term "maritime mobile," followed by the appropriate regional designator, has never referred to vessels inside the territorial waters of a country. The FCC has dropped the use of this term inadvertently in its rush to deregulate. However, there is an NPRM before the Commission to re-establish this term to bring the U.S. policy more in line with ITU and to help curb the wanton abuse of this term by yachtsmen who would operate from the territorial waters of countries without benefit of proper license.

9) I was wondering why J6LDZ mentioned Gordon West's column, but was remiss in quoting from it. Since he did not, I have enclosed as *Exhibit H* a portion of West's article from a recent issue of **Worldradio** concerning legal operation of radios aboard yachts.

10) J6LDZ's naivete on well-known drug routes leads me to believe he either doesn't follow the news, or he knows a lot more than he wishes to admit. In the first place, my article said nothing about drugs in St. Lucia but did refer to the well-known procedure of mother ships or large freighters who proceed through the St. Lucia Channel and meet with small yachts as soon as they reach the Atlantic. Amateur bands are used for the purpose of transferring these cargoes to the smaller yachts. J6LDZ's attempt to defend St. Lucia when I referred to a geographic location for a body of water between two countries is rather patronizing, to say the least.

11) Regarding the English Muffin Caper, I must admit that J6LDZ is right. Really Bernie! Two grown men discussing a recipe for English muffins in the middle of the 40-meter phone band is so weird that by attracting so much attention, it would probably not make a very good secret code — at least not anymore.

12) The last issue raised by J6LDZ was a demand that I identify the former VP5 who is pushing illegal MM operation in the Pacific. I trust the following information will suffice.

The station in question used a double letter call sign from VP5, which was subsequently revoked along with nearly 100 other VP5 quickie licenses that had been passed out to yachtsmen. This subject is presently operating in the Pacific with a call sign from the United States. He runs a so-called "maritime mobile" net on 7197, from Region III, even though operation from this region above 7100 kHz is prohibited by treaty. Frankly, I am a bit curious as to why J6LDZ would rush to protect someone he maintains does not even exist.

In conclusion, J6LDZ wrote that "... one of the purposes of Amateur Radio on yachts is to check on the availability of parts for a boat ...." With this line of reasoning, it is easy to see that J6LDZ has no business advising yachtsmen on the legal use of Amateur Radio. It is rather evident that J6LDZ is a loose cannon on deck and should be lashed down before Amateur Radio sinks further into his sea of violations.

It is clear that J6LDZ's collaboration with the spectrum intruders of our amateur bands is indeed reprehensible and one that demands our utmost concern.

HERB SCHOENBOHM, KV4FZ
St. Croix, U.S. Virgin Islands

*This issue is now closed — **Worldradio** cannot devote any more space to this subject. Readers who would like to see the exhibits referred to in this letter, may obtain copies by sending business-sized SASEs (with 37 cents postage) to Worldradio.* □

Remarks from a DXer

I would like to respond to two letters printed in the October issue of **Worldradio**.

The first, by the General Class amateur upset because DXpeditions don't operate in the General Class band. The answer is simply QSOs per hour. You can work more people faster at the low end of the band. Why? Because that is where most people go to look for DX.

Foreign stations have traditionally tuned their antennas for a frequency *below* the "American" phone band since much of their operating is done away from U.S. QRM. As a result, when they do come up to work W's, they generally stay in the lower end because their SWR goes up just like ours does! Likewise, when a person is serious about working DX on SSB, he/she will upgrade to Advanced because there is more DX down there.

The same is true of contests. The DX comes up in frequency when the QSO rate drops because of: 1) crowding, or 2) the station has "worked down" the pile. On my first few DXpeditions, I *only* worked the General Class band because I was a General. I quit (except on special request) when I discovered how many more stations I could work down below!

I don't like nets that feel like they own the frequency either, and most of them have that attitude.

The second item is regarding "MYL". My YL, Martha WN4FVU, prefers YF. An old-timer told her one time that was what hams used to call their wives; even sounds like wife! Personally, I always say "my YL," since Martha has threatened to bean me for calling her an EX-YL! Right on, sister!

It might be appropriate at this time to respond to a recent mailing by a pro-list individual calling me a newcomer, by pointing out that September marked the first decade of DXpeditions by WB4ZNH. If my arithmetic serves me correctly, I have operated from 19 DXCC countries in 10 years. My own DXCC total from Georgia totals 305. Under certain criteria, I could be called a newcomer, I suppose.

CARL HENSON, WB4ZNH
Jonesboro, Georgia □

Contact lens myth

Following is an item that was printed in STATE, the U.S. Department of State newsletter, June 1983 issue. Author of the column this was taken from is Jerome M. Korcak, M.D., chief of the Department's Office of Medical Services.

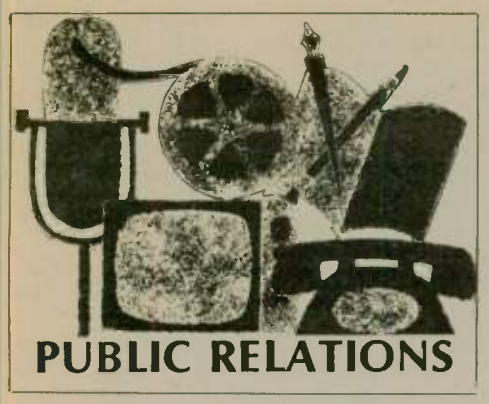
Q: I recently read about two cases in which workers wearing contact lenses allegedly had the lenses fused to their eyes after exposure to an electrical spark. Don't you think contact lens users should be aware of this danger?

A: The story about contact lenses binding to the wearer's cornea after exposure to an electrical spark is certainly sensational. But it's not true.

Upon researching this topic, my staff uncovered information about this incident. A shipyard employee plugged a unit into a 440 volt service line and the switchbox exploded, producing a brilliant light. The wearer had no eye complaints following the incident. The next day, he removed his contact lens and did indeed have a documented corneal ulcer.

The ophthalmologist who cared for him believed that the electrical flash played no part in causing his corneal injuries. The injury occurred because of his neglect in keeping the lens in place for well over 12 hours.

Unfortunately, this incident was misquoted and requoted and lately has been widely circulated in safety notices across the country in the form of the scenario which you gave. Strange, indeed, how erroneous stories of this nature are perpetuated. □



Costa Rica amateurs encouraged

Lenore Jensen, W6NAZ

Compliments were lavished upon Amateur Radio operators of Costa Rica by Larry Lindstrom, communications expert with a team of investigators who visited the scene of a recent earthquake centered in San Isidro. The immediate response by amateurs to remote and mountainous canyons above the small city with their VHF gear was cited as extremely helpful when all other communication failed.

"Our ambassador had requested Washington to gather a team to assess the country's emergency readiness capabilities in view of another possible disaster, and I was pleased to be part of it for two weeks," said Lindstrom, who is Director of Communications for the city of Los Angeles. (He is presently arranging for the city to install its own amateur gear in the Emergency Communications Center below Los Angeles' City Hall area for operation by ARES when needed.)

Although the Costa Rica amateurs worked without formal organization and with limited equipment, they fought their way past landslides in the rugged area and beyond canyon roads in their efforts to help, relaying with each other and down to the city center.

So impressed was Lindstrom — a former ham and a communications professional — that he has recommended the United States supply, via a tiny portion of Foreign Aid, a number of portable 2-meter transceivers, etc., to support the amateurs' capabilities. Also, he urges that they be brought into the government there similarly to many arrangements in the United States. □

Event was a 'first'

John Carroll, KG0Y

The Heart of America Radio Club (HARC) of Kansas City, Missouri, consistently participates in community public-service activities by providing necessary communications.

Such was the case on Sunday, 28 August, when 450 athletes participated in the first annual triathlon sponsored by the Baptist Medical Center of Kansas City.

Since this was a "first ever," both for the sponsors and for our club, we couldn't know exactly what to expect. When the day was over, we found that every situation had been handled with dispatch and a high degree of professionalism.

HARC was quite pleased to receive a letter of appreciation (see below) from Jerry Whalen, Director of Communications for Baptist Medical Center, and Alice Rae, its Director of Planning.

We really struck a gold mine when we located you and your ham radio club. Your skilled assistance and enthusiastic interest put the key ingredients in the Baptist Medical Center Triathlon. We hope you will share this sincere thanks with each of the staff who devoted a good portion of the Sunday to make our race such a great success.

Not having organized a race before, we had never had the experience of setting up a coordinated communications system before. We can't begin to convey how much we realized the importance of turning around and instantly being in contact with distant points of the course. The safety and organization of the entire event was greatly magnified by all of your participation.

Enclosed is an evaluation form we hope you will also share with your club. We are committed to making this an annual event and your comments can only help make it more successful.

Thanks again. It was super working with you all.

Sincerely,
ALICE RAE and JERRY WHALEN □

Make a good impression

Submitted by Ethel Smith, K4LMB

Amateur Radio has changed a great deal over the years. The days of simple breadboard construction are long gone and, more and more, the average amateur has become an "appliance operator." Even our place in emergency communications has been largely supplanted by well-equipped public services and by the masses of CB equipment. We are seldom the only means of communications in a disaster area anymore.

Many of the original justifications for our existence are no longer valid. At the same time, the demand for radio frequencies has increased dramatically. We can't expect to retain our precious frequencies on the basis of gratitude for the things we have done in the past. We must redirect our emphasis to the things we can, today, still do best. We have much to offer, but every amateur is going to have to be conscious of the necessity of making a good impression. We can't sit back and "let George do it" or put the whole burden on ARRL. Each of us is going to have to promote good public relations, good neighborhood relations and good operating practices.

One outstanding example of the amateur's ability was demonstrated when the Air Florida plane crashed into a bridge. Local amateurs did a splendid job and Amateur Radio got a good deal of favorable publicity. But this was not just a bunch of independent amateurs who dashed down at the time of the disaster and said, "I'm a ham, which can I do to

help?" The local clubs were well organized in advance of the emergency, and each member knew exactly what he was supposed to do. More importantly, the local officials were already aware of the amateurs' capabilities and had developed confidence in their ability to provide real service.

That is what ARES is all about. If you aren't now a member, please get in touch with your local Emergency Coordinator right away and sign up. Efficient emergency communications don't just happen spontaneously when an emergency occurs. They require continual planning and coordination. ARES needs you and Amateur Radio needs ARES. Our ability to perform effective service in the public interest is vital to our existence.

We recently spent a good deal of effort in bolstering our faltering image at the FCC. However, the FCC takes its orders from Congress, and the congressmen form their opinions on the basis of what they hear from their constituents. The bottom line is that the general public decides the future of Amateur Radio.

Sometimes this worries me. Some of the bickering I hear on the air would make an eavesdropper wonder if anything worthwhile is being accomplished by any of us. The next time you are on the air, tune across the band and consider whether you would want a recording of what you hear played back at a congressional hearing on the future of Amateur Radio. I'm not suggesting everything has to be strictly business all the time. Amateur Radio is supposed to be fun, and the way we develop many of our skills is through the primarily selfish enjoyment of our operations. But we should keep in mind that radio frequencies have become a priceless commodity and many people throughout the world are looking at our amateur bands with jealous eyes.

Amateur Radio has a great deal to offer — a lot to brag about. We must do that bragging so that the general public will come to respect the value of our service.
— *The Owl*
—*Auto-Call* □

A *radio* for lunch?

Cart Zelich, AA4MI

If you go to a fast service diner, order a *radio* for lunch. Short-order cooks say "Adam and Eve on a raft" (poached eggs on toast) and red lead (ketchup). A "radio" is a tuna-fish sandwich on toast. Does anyone know why? □

TV 'ham special'

Lenore Jensen, W6NAZ

It's a fact of history that all present broadcasting stems from those early Amateur Radio experimenters, and KTTV — Los Angeles' Channel 11 — has paid its debt.

On the day before Field Day, 24 June, the popular Metromedia station devoted a great part of its mid-day 90-minute news period to Amateur Radio.

By combining a live pick-up from the station of Mike Simpson, W6CRD, in Long Beach (who was working a station in Hawaii as well as his fellow members of the Maritime Net), with videotaped interviews and ARRL films, an enthusiastic presentation in praise of Amateur Radio resulted.

It all started when anchor-gal Nancy Nelson inquired of the 30 amateurs working at the station if they knew anyone in Minneapolis who could help her father get a license. (A "handicapped" ham back there, Dennis Hardy, certainly did!)

Technical Director Mert Garlick, N6AWE, and Bill Pasternak, WA6ITF, added to the enthusiasm, and the project of airing a feature went into action.

Co-anchor Bill Smith entered the scene; the executive vice president of news, Joe Saitta, assigned Denise Dean and Bob Guerrero to produce. Gathering the myriad sections of material into an excellent program was the editing job done by Noreen Gaisbauer. Consequently, scores of home video recorders were busy saving the show for posterity and local ham presentations.

Southwest Division ARRL Director Jay Holladay, W6IJJ, explained amateur plans for helping in the upcoming Olympics. The *Queen Mary* station, W6RO, and its "spark plug," Nate Brightman, K6OSC, were visited. RACES, ARES, phone patching and other public services were explained by interviews with a number of operators.

Many hams, evaluating the program, gave it a "10!" □

A joint effort by Department of State (W3DOS), Capitol Hill (W3USS) and NASA ham clubs took place on Field Day this year. Among those shown are Jim Gordon, KA6ISE, of the State club (leaning over equipment, left); Dave Siddall, K3YJ, of the Capitol Hill club (seated, center right, in hat); Pete Smith, N4ZR, of the NASA club (seated, at right). Call used was W3DOS. ***(Photo by Dave Snyder, KA3HSD)***

Not just another Field Day

George Johannsen, WB0ZQN

If your club is like ours used to be, Field Day site selection was the first preparation made. Once the location was picked, all the rest of the details fell into place. For too many clubs, that's the way it has always been and the way it will always be. But not for the members of the Mankato (Minnesota) Area Radio Club. We decided in early April to truly test our abilities in operating under actual emergency conditions for the 50th anniversary of the ARRL Field Day. To accomplish this, we asked our club president — Owen Schmidt, WB0SCN — to invite Blue Earth County Emergency Services Director Robert Shaw and Sheriff LaRoy Wiebold to pick a site for us and *NOT TELL US UNTIL THE MORNING OF FIELD DAY!*

We thought this new twist on our plans would be the only change in our operations, but Murphy's law prevailed.

Our local Knights of Columbus chapter always provided a large tent for our shack, but this year it was booked for a wedding reception. After frantic telephone calls to the Boy Scouts, the National Guard and rental shops, we still had no tent. Forty-eight hours before Field Day, a young Novice, Mark McCormick, KA0PEB, found a family friend at the 492nd Engineering Co., U.S. Army Reserve, and arranged to use one of their tents. While this search was occurring, Audrey Kimpe, N0CXP (XYL of Archie KZ0U), informed us her church would probably loan us a school bus to use as a shack. All of a sudden, we were ready for Field Day — or so we thought.

On Saturday morning, the sheriff's dispatcher called Southwest District Emergency Coordinator George Johannsen, WB0ZQN, and John Beal, WB0LOR. A mock emergency had been declared in Blue Earth County, and amateurs were asked to set up a communications post on the Oscar Birr farm, 11 miles southeast of the city of Mankato. As soon as the notice was received, our Emergency Services telephone tree notification system was ac-

tivated, as well as an emergency net on 147.84/24, K0KLY/R.

Within minutes, Mike Hertel, KA0MIV, arrived at the law enforcement center to pick up maps made for us by the sheriff's department. Mike relayed detailed instructions to the net on how to find the site. Then Mike drove to the site to tell us what equipment would be needed and to provide talk-in. Upon Mike's arrival, an astonishing fact was learned — the sheriff and the Civil Defense Director had taken the term "Field" Day seriously and had assigned us to operate in a real field! (There must have been an Officer Murphy on the staff.)

Imagine our amazement when we learned we were to set up in what had been a corn field the previous year! There were no trees or shelter of any kind. Just dirt, thistles and corn stubble everywhere!

The next people to arrive — Al Windhorn, WA0OHE; Mark KA0PEB; and Steve Heaton, WB0MHK — selected the highest point, cleared out thistles, and prepared for the arrival of Field Day Committee Chairman Chuck Sandness, N0CAJ, and the rest of the crew. Signs were constructed and posted on the gravel roads leading to the field.

By this time, KA0MIV had returned to town and met our bus driver, Joe Schwartzbauer, W0CHT, and drove around town to pick up the tower and other equipment. Then Mr. Murphy found them. The gas gauge was broken and the bus ran out of fuel!

Finally, by noon we were ready to set up. That's when we realized we had no sanitation facilities. (As mentioned earlier, there were no trees to sneak behind!) When the power crew, Bob Kreuzer, K0CBZ, and Dave Miller, KB0KV arrived, the two Katolight generators were unloaded and the boys were sent on an emergency run to rent a portable outhouse.

From here on, things proceeded almost as planned. We had no trees to anchor our dipoles, but ham ingenuity came into play. We tied one end of the 80-meter dipole on the bus window frame and attached the other end to the top of a spare section of tower. Setting up the beam and two verticals went without a hitch. At long last, W0WCL/0 was on the air!

Operating the four rigs was far from comfortable. The day was hot, and moderate winds blew dirt all over the equipment and operators. As luck would have it, club member Jeff Haefner, WA0WUC, was videotaping a crew of tired, dirty hams for the local television station where Jeff is a producer.

We might add here that media response to Field Day was very impressive! WB0MHK distributed press releases to four local radio stations, the daily newspaper and the TV station. Each was called Saturday morning and given directions to the site and a warm welcome to visit. Stories were read on all four radio stations before and during Field Day. The newspaper carried articles and a photo in three editions, and the television station ran a 1½-minute feature on the 10:00 p.m. newscast.

We strongly believe involving the government officials in the Field Day plans and mentioning this in the releases greatly increased our chances of receiving publicity. Of course, having hams on staff at a radio station and the TV station, and the paper editor's son being a ham helped our chances!

Just as Field Day was winding down, good old Murphy stopped by for a finale. As soon as we shut down the generators and took down the antennas, the clouds opened up and dumped 1 inch of rain in 30 minutes. Our hot, dry field suddenly became a mud hole. It took three hours to tear down the remaining equipment and drag it to the nearby road. Luck was with us, as KB0KV just happened to have his 4-wheel-drive pickup along to remove the stuck cars of club vice president Mike Daly, WB0JYT, and N0CAJ.

ARRL Field Day 1983 will long be remembered by the members of the Mankato ARC. We highly recommend all clubs try this approach at least once! Some words of caution are in order here:

MAKE IT VERY CLEAR TO THE PERSON SELECTING THE SITE THAT THE WORDS "FIELD DAY" SHOULD NOT BE TAKEN LITERALLY! Otherwise, think of the worst possible place to operate from and be prepared to use it! □

Product Review
Mobile antennas

Paul Schuett, KE6RN

Recently, Ten-Tec has come along with a line of mobile antennas. There are units for 80 through 6. These are quite lightweight and are only 6 feet long. The bottom part appears to be a helically-wound inductor; the top part is a whip, tuned to the desired frequency by moving it up and down as the SWR is observed. Some say a better way is to use a field-strength meter.

The big advantage to this antenna is its light weight — the manufacturer says it will remain vertical even at the highest-permissible freeway speed.

It is suggested that performance is improved with a capacitor at the antenna base for the three lower bands. A single-band mobiler would not need the switch; one capacitor from the junk box would do the job. The company will also furnish, at a nominal cost, a base for the car. Nothing is said about a bottom spring, but such has saved many antennas from low-lying tree limbs and garage doors! Besides, it takes the tension off the base as the wind whistles by while going at freeway speeds.

Visual appeal is enhanced over the customary bulky aluminum masts. Cost of the antenna is $31.75; a matching box is available for $24.75. Write to Ten-Tec, Inc., Sevierville, TN 37862. □

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

The AMSAT/OSCAR-10 spacecraft continues to operate well. In our November column the gremlins got to work very effectively so that some useful information was garbled beyond comprehension. In order to clarify it, we have repeated the information below in its correct order:

"When listening to the Mode B beacon at 145.810 MHz, you will hear five minutes of CW beginning on the hour and half hour, with 25 minutes of telemetry in the interim periods. At times, the 145.810 MHz general beacon will be replaced for a short time with the engineering beacon on 145.987 MHz."

That was one of the items. Another one should have read like this:

"You will not need loads of power to access the transponder (of A/0-10). On Mondays, there is a QRP night when users are encouraged to operate with 3-5 watts input to the transmitting antenna. This has proven very successful due to the fact that the transponder input is quite sensitive. If you have a well-designed antenna (10dB or better) and preamplifier on your SSB or CW receiver, there should be no difficulty in achieving a good QSO."

Now go back to the November issue, and you will see that the problem resulted from the interleaving of the type slugs in the wrong order making for utter chaos. We apologize for the gremlins.

By this time, all of you who may have been anticipating an opportunity to make a direct contact with astronaut-amateur Dr. Owen Garriot, W5LFL, aboard the space shuttle STS-9 are now aware that the mission has been delayed to the end of November or February depending on the outcome of tests on the booster nozzles in which the ablative coatings had worn to a greater degree than was believed to be safe.

The ARRL has published a chart in its *ARRL Newsletter* for 13 October, which showed the anticipated flight paths of the STS-9 during which the planned contacts with W5LFL might have been possible. Of course, if the launch of STS-9 is delayed, these data will have to be shifted — probably for better coverage of the United States.

The West Coast was likely to have been short-changed in the orbital paths expected with the October launch. As the Earth-sun orientation changes somewhat, there may be some better pickings for the West Coast amateurs' contacts with the STS-9.

In one of the recent West Coast AMSAT/OSCAR nets, John Fail, KL7GRF, read a treatise on Keplerian elements prepared by Phil Karn, KA9Q, an assistant vice president for engineering in the AMSAT organization. It will be published in a future issue of the magazine **ORBIT** — a publication which members of AMSAT receive as part of the benefit package for members. There is a membership application which usually accompanies this column. I urge you to take advantage of it. Although we cover a great deal here about AMSAT activities, there is always something special in **ORBIT.**

For those of you who may not be familiar with the Keplerian elements, they are the basic values which are cranked into the computers that calculate satellite orbits. They apply to all satellites. Of course, the values differ for each, but with their use, the position of the spacecraft in its orbit can be computed. Thus, when you know where the spacecraft is, you can point your antenna at it for communication via its transponder or — as in the case of AMSAT-UK's OSCAR-9 (the UOSAT) — you can point to the spacecraft to receive its downlink.

A typical set of Keplerian elements includes the epoch time (T), which is a time reference indicating when the remaining values are valid. Mean motion (N) is the number of complete orbits each day. Mean anomaly (M) is an indication of where the spacecraft is in its orbit at the epoch time. One can obtain the period by taking the reciprocal of M. The period is the length of time it takes the spacecraft to complete one orbit.

Eccentricity (e) is the degree of lopsidedness of the orbit. A perfect circular orbit would have an e = 0. If e is greater than 0 but less than 1, the orbit is an ellipse. A parabola would have an e = 1. An e greater than 1 is a hyperbola. Inclination (i) is the angle between the plane of the orbit and the equator.

The angle is measured from the equatorial plane rotating counterclockwise. Argument of perigee (w) is the angle seen from the center of the earth measured in the orbit plane in the direction of motion of the satellite between the equator and the perigee point. The right ascension of the ascending node (RAAN) is the angle measured along the equator between a celestial longitude and the point on the plane of the orbit where the satellite crosses the equator going northward.

Here are some notes about the values. An inclination of zero is an orbit above the equator at all points. An inclination of 90° is an orbit around the Earth in a north/south direction, crossing both poles.

A factor which doesn't affect the type of orbit in which AMSAT/OSCAR-10 finds itself is drag. It is most significant in an orbit closer to the Earth, such as those of the UOSAT and the RS-satellites which the Russian amateurs launched. Atmospheric drag reduces the orbital energy and increases its orbital motion. The speedup brings it into a lower orbit. The drag then increases further, and if continued long enough, ultimately results in the spiraling-in of the spacecraft toward the surface of the Earth. When it finally enters the Earth's atmosphere, the spacecraft is consumed by the heat of friction through the atmosphere — as in the cases of OSCAR-1 and 2.

The drag phenomenon and its effects necessitate very special ablative materials on the manned spacecraft, such as the tiles that were used on the shuttles.

Below is a list of Keplerian elements for several amateur spacecraft. (This particular list is from AMSAT UK sources.)

Satellite: rs-5
Catalog number: 12999
Epoch time: 83248.19029235
Mon Sep 5 04:34:01.259 1983 UTC
Element set: 112
Inclination: 82.9638 deg
RA of node: 298.6767 deg
Eccentricity: 0.0009817
Arg of perigee: 337.8666 deg
Mean anomaly: 22.2017 deg
Mean motion: 12.05044818 rev/day
Decay rate: 4e-08 rev/day^2
Epoch rev: 7549
Semi major axis: 8033.878 km
Anom period: 119.497630 min
Apogee: 1666.610 km
Perigee: 1650.836 km

Satellite: rs-6
Catalog number: 13002
Epoch time: 83240.33476101
Sun Aug 28 08:02:03.351 1983 UTC
Element set: 62
Inclination: 82.9615 deg
RA of node: 297.3576 deg
Eccentricity: 0.0048678
Arg of perigee: 259.1047 deg
Mean anomaly: 100.4540 deg
Mean motion: 12.13554895 rev/day
Decay rate: 4e-08 rev/day^2
Epoch rev: 7507
Semi major axis: 7996.251 km
Anom period: 118.659651 min
Apogee: 1677.342 km
Perigee: 1599.493 km

Satellite: rs-7
Catalog number: 13001
Epoch time: 83249.61972279
Tue Sep 6 14:52:24.491 1983 UTC
Element set: 121
Inclination: 82.9616 deg
RA of node: 295.4358 deg
Eccentricity: 0.0020694
Arg of perigee: 256.7581 deg
Mean anomaly: 103.1170 deg
Mean motion: 12.08677709 rev/day
Decay rate: 4e-08 rev/day^2
Epoch rev: 7589
Semi major axis: 8017.761 km
Anom period: 119.138459 min
Apogee: 1676.167 km
Perigee: 1642.983 km

Satellite: rs-8
Catalog number: 12998
Epoch time: 83247.54249113
Sun Sep 4 13:01:11.234 1983 UTC
Element set: 240
Inclination: 82.9599 deg
RA of node: 300.3349 deg
Eccentricity: 0.0019341
Arg of perigee: 21.9766 deg
Mean anomaly: 338.2124 deg
Mean motion: 12.02937841 rev/day
Decay rate: 4e-08 rev/day^2
Epoch rev: 7528
Semi major axis: 8043.262 km
Anom period: 119.706933 min
Apogee: 1683.623 km
Perigee: 1652.510 km

Subj: Keplerian data
Posted: Tue Sep 13, 1983 4:51 PM
From: PKARN
To: ops

Satellite: OSCAR-10
Catalog number: 14129
Epoch time: 83257.00000000
Wed Sep 14 00:00:00.000 1983 UTC
Element set: MH 9-13-83
Inclination: 26.0670 deg
RA of node: 241.3370 deg
Eccentricity: 0.6040293
Arg of perigee: 202.7550 deg
Mean anomaly: 136.6490 deg
Mean motion: 2.05855890 rev/day
Decay rate: 0 rev/day^2
Epoch rev: 190
Semi major axis: 26105.538 km
Anom period: 699.518484 min
Apogee: 35496.521 km
Perigee: 3959.501 km
Translate freq: 581.0047 mhz
Invert: 1
Beacon: 145.8100 mhz

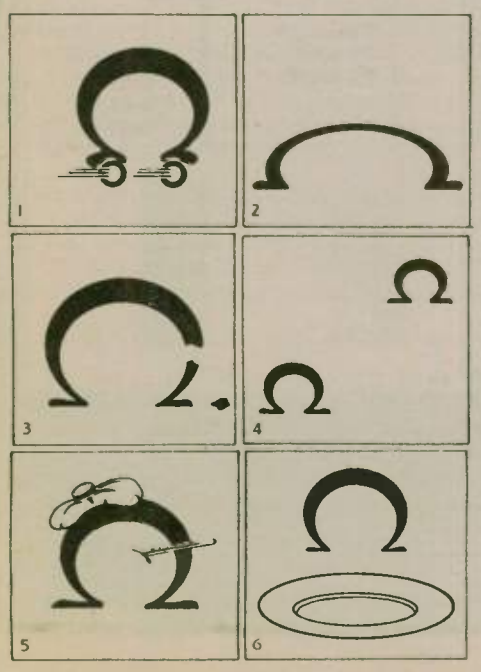
Satellite: OSCAR-9
Catalog number: 12888
Epoch time: 83249.89664982
Tue Sep 6 21:31:10.544 1983 UTC
Element set: 507
Inclination: 97.5525 deg
RA of node: 216.4069 deg
Eccentricity: 0.0003938
Arg of perigee: 50.4708 deg
Mean anomaly: 309.6876 deg
Mean motion: 15.22960257 rev/day
Decay rate: 3.924e-05 rev/day^2
Epoch rev: 10623
Semi major axis: 6872.022 km
Anom period: 94.552697 min
Apogee: 509.086 km
Perigee: 503.673 km
Beacon: 145.8250 mhz

OSCAR-9:
Wed Sep 14 01:23:48.806 1983 UTC: Ascending node at 149.8 west
Nodal period: 94.60957 min
Longitude increment: 23.650924 deg w/orbit
Element set 507, epoch: Tue Sep 6 21:31:10.544 1983 UTC

Ohm-Brew

For those of you who enjoy straining your mind creatively, we've decided to start an "ohm-brew" contest. Below are examples of what we'll be looking for. These particular examples were printed in the North Texas High Frequency Association's newsletter, *Watts Happening*.

Send your entries to Worldradio, 2120-28th St., Sacramento, CA 95818; ATTN: Chris Wilson. Each winner will receive a free one-year subscription.
(Answers on page 33)



AMRAD equipment OK'd in final test

The final test of STS-9 Amateur Radio (AMRAD) equipment was performed at the Kennedy Space Center (KSC) during Orbiter Integrated Test (OIT) S0001. Astronaut Dr. Owen Garriott, W5LFL, operated the AMRAD equipment and performed ground check-out with amateurs.

The OIT cleared the final reservation that the AMRAD equipment would not cause radio frequency interference (RFI) to *Columbia* or *Space Lab* electrical or communications systems. This test culminated several days of fit-checking the AMRAD window antenna to a flight deck observation window.

No anomalies were caused to *Columbia* or *Space Lab* systems by AMRAD equipment, thus clearing the final obstacle for use during the STS-9 mission.

The following radio amateurs participated in the test and check-out at KSC: John Anderson, K4GCC; Bruce Burke, WB4YUC; J.D. Collner, W4GNC; Les Griner, K4SJC; Walt Hollowell, WA4ZEE; Dave Hurst, WA4FER; John Kennedy, N4DWK; John Link, W4BME; Tom McKeever, W4NOV; John Ray III, WB4BFS; Joe Reiner, KA4KHR; Harold Sanderson, WB4TTA; Bill Wierenga, KC4YS; Wes Whitley, AF4N; and Dave Lerret, KU0R.

—Submitted by John Link, W4BME, and Carl Zelich, AA4MI □

Chairmen chosen

In a recent action, the board of Directors of the Dayton Amateur Radio Association announced that Jack Mitchell, AA8Q, has been appointed general chairman of the 1984 Dayton Hamvention.

In view of the magnitude of the job, Harold Judd, WA8KNM, the 1982 and 1983 general chairman, has agreed to stay on as assistant general chairman. Also appointed as assistant general chairman was another long-time committee chairman — James Simpson, WB8QZZ.

For further information, call Jack Mitchell at (513) 223-7215. — *Robert McKay, PIO, Dayton ARA* □

DX WORLD

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

Activities Calendar

26-27 November CQ World Wide DX Contest (CW)
26-27 November ARRL International EME Competition
03-04 December RSI WCY Contest (CW)
03-07 December ARRL 160-Meter Contest
10-11 December ARRL 10-Meter Contest

W-100-N

217. WA2KAB Robert K. Weiss
218. KS0Z Keith H. Gilbertson
219. KA3CTY Arthur H. Valentine
220. NB7Q Neil W. Zimmerman

Jarvis Island (KH5)

Jarvis Island is located about 1,200 miles southwest of Hawaii. It is a wildlife refuge administered by the U.S. Department of the Interior. Two miles long and one mile wide, Jarvis Island is the home for hermit crabs, feral cats and about 1.5 million nesting sea birds.

Presently, Jarvis Island counts as the same DXCC country as that of Palmyra Island, which is privately owned. As acceptable documentation for a DXpedition to Palmyra Island is impossible at this time, a group of DXers led by George Adkins, AD1S, planned a DXpedition to Jarvis Island.

Unfortunately, we received information concerning the Jarvis Island DXpedition too late for proper notification. As the information was mailed the latter part of September, it is indeed unfortunate that we can only tell you that it happened. If you subscribed to one of the weekly DX newsletters, then you have already either worked the group or heard about it.

The team was to have consisted of five operators: George Adkins, AD1S; Stuart Greene, WA2MOE; Burton Myers, W0RLX; Stuart Honeysett, H44SH; and John Getz, AD8J. Operation was on all bands, 160 through 10 meters, both CW and SSB, using the call AD1S/KH5. The operation commenced on 05 November and was to have continued for five days.

All QSL requests go to George Adkins, AD1S, P.O. Box 32725, Oklahoma City, OK 73123. Please provide the usual SASE. Contributions are also welcomed to defray cost of the charter vessel out of Hawaii.

Albania (ZA)

Bahri Kacan, DJ0UJ, is still hoping for a license to operate from Albania. He had hoped that he would have been able to operate this fall along with Frank Turek, DL7FT. Perhaps they will have better luck this spring.

Last spring, a group of Finns had visited Albania to spur interest in Amateur Radio. And in August, the Albanians in turn sent a delegation to Finland where they were presented with a TS-130S to take back for their use at a university in Tirana.

No doubt, Albania will be on soon. As Albania has good relations with China, who broke the ice with BY1PK, maybe they too will come along. At present, Albania is the most needed country by DXers.

Clipperton Island (FO0X)

The latest information on the Clipperton DXpedition scheduled for next March or April is that the group now consists of 10 operators and has been assigned the call FO0XX.

Fiji Islands (3D2)

Look for 3D2DM, one of the several stations active on the Fiji Islands. This station has been reported on 14.310 MHz from 0300 UTC along with 3D2DB. 3D2DM also operates 40 and 15 and has been working the Europeans on 7.074 MHz at 0600 UTC and 21.157 MHz at 1130 UTC.

Also active is 3D2TI who has been worked on 14.187 MHz from 1200 UTC. This station is operated by JA1FBD who is an airline pilot who spends 10 days a month in Nandi. He operates from the airport hotel running an IC-740 into a dipole antenna.

Found on 10 meters is 3D2GT who was found on 28.564 MHz at 2400 UTC working the West Coast in early October.

If you worked 3D2ZM recently, that was Phil Frazier, K6ZM, a member of the Northern California DX Club. Phil is out in the Pacific on vacation with his wife and should now be signing A35ZM from Tonga. From 23 November through 03 December, Phil should be operating as ZK2ZM from Niue. All QSL cards for Phil's operations (3D2ZM, A35ZM and ZK2ZM) should be send to him direct with the usual SASE. The QSL cards will be sent out by Christmas.

Monaco (3A)

Not much to report on this one, which continues to be one of the rarer countries out of Europe. Activity was reported with 3A2EE on 14.198 MHz from 2200 UTC, 3A2HA on 14.042 MHz from 0500 UTC, 3A2ARM on 14.021 MHz from 0100 UTC, and DL5DAB/3A on 21.299 MHz from 2100 UTC.

Years ago, Andorra was the rare one in Europe. At that time, the "PX" unofficial prefix was in use. Now, everyone goes

there. Seems that more amateurs desire to go to Andorra than Monaco. It must be the mountain air — or the Basque food!

Brunei (VS5)

Seventy-five meter buffs might check 3.795 MHz after 1000 UTC for the appearance of VS5DD, who has just set up a new antenna farm. About an hour later he moves to 40 meters and fires up on either 7.098 or 7.195 MHz.

Europeans might check that 75-meter frequency for VS5DD, who has been reported there around 2130 UTC. Also reported working Europeans is VS5GF, who was found on 14.150 MHz around 0900 UTC. This time also favors stateside contacts.

A third station reported from Brunei is VS5HG, who has been found on 14.205 MHz after 1100 UTC, and also higher up the band on 14.285 MHz.

Korea (HL)

South Korea is well represented on the bands, both Korean nationals and U.S. military personnel stationed there. Les Lovestead, HL9AH, hangs out near 21.300 MHz starting around 0100 UTC and also has been reported on 20 meters near -14.205 MHz at 1200 UTC. Les, who hails from San Antonio as N5CAH, is stationed at Camp Walker in Taegu.

Other personnel stationed in Korea include HL9TA, who has been reported after 1200 UTC operating CW near 14.012 MHz, and HL9SP who was worked on 14.199 MHz at the same time period.

Korean nationals include such calls as HL4XM near 14.035 MHz from 1200 UTC, HL3AQW on 21.317 MHz at 0200 UTC, HL1EJ on 7.082 MHz at 2115 UTC working Europeans, along with HL1CX on 7.007 MHz also working to the west at 1900 UTC. HL1CX also works stateside stations and has been reported on the lower edge of 20 meters near 14.008 MHz after 1100 UTC.

DXers looking for YL operators might look for HL1APR operating from Seoul. May was reported on 28.564 MHz working West Coast stations at 0200 UTC.

Micronesia (KC6)

The Eastern Carolines have been represented by Vin KC6VD, who is a New York City boy at the Missionary School on Truk. Vin has been worked on 14.226 MHz at 0300 UTC, and has also been found on 14.170 MHz at 1500 UTC.

From Ponape, Isao Nishimura, KC6IN, has been worked on 21.270 MHz at 1300 UTC. KC6RN is another active one that has been found operating both CW and SSB. He has been found on 14.024 MHz around 1800 UTC, 21.026 MHz and 21.301 MHz after 0200 UTC, and 21.296 MHz at 2300 UTC.

Another station, KC6JA, has been reported on 14.310 MHz at 0500 UTC, but we aren't sure if this station is in the Eastern Carolines or the Western Carolines, now referred to as Belau. If you are looking for Belau, try KC6DF, who has been reported on 14.255 MHz after 1530 UTC.

Cuba (CM/CO)

This one is closer to home, although being close doesn't make it easy to work. We have reports for at least three stations that have been reported on the bands. CM2FH has been reported on 40 meters near 7.007 MHz from 0200 UTC working the central states, and on 20 meters CO1RH was found working CW on 14.068 MHz around 0200 UTC, and CO2OM working SSB on 14.199 MHz after 1300 UTC.

Ivory Coast (TU2)

Look for TU2NW, operated by Tom Gregory, N4NW, who settles near 28.555, 21.300, 14.155, 7.070 and 3.795 MHz. That 75-meter frequency is a popular one on Fridays and Saturdays for an hour or more from 2300 UTC. This station expects some 160-meter activity soon from his Abidjan location. He also plans CW activity upon receipt of a new keyer. This CW activity will probably be limited to 20 percent of his operating time.

Also active from the Ivory Coast is TU2NA, who has been worked on 21.331 MHz after 1800 UTC and 14.191 MHz at 2400 UTC. Two other stations have also been reported, those being TU2JD on 14.177 MHz at 2300 UTC and TU2IJ on 21.267 MHz at 1400 UTC.

Vanuatu (YJ8)

Vanuatu, former known as New Hebrides, is another popular South Pacific country amoung DXers. Reported working Europeans on 40 meters was YJ8RG on 7.090 MHz after 0600 UTC. Stateside amateurs might check 14.310 MHz from 0300 UTC and 21.301 MHz from 0100 UTC for this one.

On 20 meters, YJ8DE was busy working the West Coast on 14.162 MHz around 0600 UTC, with YJ8TT working Europeans on 15 meters on 21.283 MHz from 0900 UTC.

China (BY)

A third station from China was to have been activated mid-October. The station, signing BY4AA, is located in the city of Shanghai. The first contact was to be a pre-arranged event with BY1PK, then followed by several Japanese amateurs located in Yokahama, the sister city of Shanghai.

Along with BY4AA, BY8AA and BY1PK will continue to decrease the demand for contacts with China. Additional stations should be on the air soon, including BY7RJ from Canton.

BY1PK will soon be on 40 and 80 meters, as they expect to string a couple of antennas between the two towers at their Beijing location.

Silent Key

Mas Seo, K9KXA, died 04 September in a fall from his roof. In addition to being an active DXer, Mas was QSL manager for several DX stations, including that of EA8CR, T4AHC, T4YL, TU2GA, W9QFO/YU, 9Y4VV and others.

Prefixes

The *DX News* sheet reports that New Zealand will adopt the following prefix allocations. Stations on North and South Islands will continue to use the ZL1 to ZL4 prefix, where ZL5 will denote stations at Antarctic Bases. ZL6 will signify Intruder Watch and Emergency stations and visitors to New Zealand will use the ZL0 prefix. Chatham Island stations, formerly ZL/C, will use ZL7; Kermadec Island stations, formerly ZL/K, will use ZL8; and Auckland and Campbell Islands stations, formerly ZL/A, will use ZL9.

The prefix for Tokelau Islands will be replaced with ZK3, formerly ZM7. The effective date for this change, including the New Zealand call areas, is the first of the year.

IOTA

The following islands qualifying for the IOTA awards program have been reported.

EU-75	W4MAT/SV5	Spetsai Island	14.260	0930
EU-17	ID9XRU	Lipari Island	14.250	1930
EU-84	SM0DRB	Lidingo Island		
EU-09	GM3TZO/P	Orkney Islands	14.200	2030
EU-88	OZ1BYB	Kattegat Islands		
NA-65	W7DTG	Whidbey Island	14.168	1945
OC-68	ZM1BN/A	Snares Island	21.157	1800
AS-14	A4XVM	Masirah Island	21.204	1445

Details on the IOTA awards program are available from Geoff Watts, 62 Belmore Road, Norwich NR7 0PU, ENGLAND. Include $2 (or 6 IRCs) for the latest list of islands that qualify for this program.

160 meters

This is the season for top band activity and with a change in propagation on the other bands, there should be an increase in activity here. Activity reported in the leading European DX newsletter includes:

EZ9ADE	1852	2215
HH2VP	1823	0530
VP8ANT	1826	0530
EA9KQ	1834	2330
EZ6GAW	1846	2330
T77C	1849	2215
A71AD	1822	2300
3D6AK	1825	0215
5N7HKR	1834	0300
HZ1AB	1850	2200
LU9EIE	1828	0245
UK9CAA	1850	2215
SV0AA	1833	0200

The times shown are in UTC and apply for the time they were working Europeans. The listing should give you an idea what can be found on 160 meters.

There is a 160-meter newsletter out of Auburn, Washington that is published by Dennis Peterson, N7CKD. For details, write to N7CKD at 4248 "A" Street SE, Box 609, Auburn, WA 98002.

YASME Award

The YASME Foundation has announced an interesting award where contacts made with the Colvins, Lloyd W6KG and Iris W6QL, qualify. To qualify for this award, you must work at least 30 of the many DXpeditions by the YASME group. If you can't get up the 30 contacts, (each contact counts 1 pt.), perhaps you can earn the points by contacting present or past directors of the YASME Foundation. This includes the calls W6AM, W0MLY, W6RGG, OH2BH, W6OAT, etc. Check your latest YASME QSL card for a list of directors.

Make a list of contacts giving call, date of contact, time, frequency and your report. Send the list together with all QSL cards to: George R. McKercher, W0MLY, RFD 1, Perry, IA 50220.

Send no money or stamps. In a month, if your QSL cards are satisfactory, you will receive your cards back plus a very nice plaque.

Antique QSL Department

British North Borneo is another one of the DXCC deleted countries. Back on 15 September 1963, (exactly 20 years ago as I am writing this), along with Sarawak and Malaya, this one became history. The call ZC5CT was assigned to Peter Green, formerly VS4CT, VS5CT, G3DCT and VU2BQ. The card shown here is for a contact made on 16 October 1955 with Dave Kennedy, W8BRA, on 20-meter CW. Dave now holds the call N4SU. The whereabouts of Pete, who was a member

(*please turn to page 24*)

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.**

All stated specifications are approximate and subject to change without notice or obligation. All ICOM radios significantly exceed FCC regulations limiting spurious emissions.

ICOM Accessories

All you need to build your World System

Create your ideal HF system with ICOM's transceivers and complete line of interchangeable components. When you acquire a new ICOM HF transceiver, there is no need for new accessories. ICOM's standard accessories...the IC-PS30 power supply, IC-2KL solid state linear amplifier, and the IC-AT500 or AT100 automatic antenna tuners are compatible with any ICOM exciter you own.

Transceivers.
Choose either the new IC-751, IC-745 or IC-730 to drive your ICOM HF system. Other transceivers such as the IC-701, IC-720A and IC-740 are also compatible and have ICOM's distinct base station styling.

IC-PS30.
The IC-PS30 is ICOM's power supply system designed for powering up to four pieces of ICOM equipment at the same time. Full current and voltage metering is provided. 25 amp capacity. 117 VAC or 220 VAC operation.

IC-2KL.
The ultimate solid state linear amplifier, the IC-2KL, provides a full 500 watts of power on 160 through 15 meters. Working from its own IC-2KLPS power supply, the IC-2KL uses 40 VDC on the final transistors for excellent IMD. Automatic bandswitch is operable when used with an ICOM exciter. Broadbanded, the IC-2KL requires no tune-up. Finals are fully protected through a unique three-way APC circuit.

IC-AT500/AT100.
The 500 watt IC-AT500 or 100 watt IC-AT100 are automatic antenna tuners. When used with an ICOM exciter, they provide automatic bandswitching and automatic antenna matching. Four antenna ports are included, and the correct antenna is automatically selected for the band in use. A preset tune position is supplied for each band to allow coarse tuning for receiving without transmitting first.

Others.
ICOM's extensive product line includes accessories for every need: IC-PS15 power supply, IC-MT100 manual antenna tuner, IC-PP1 phone patch, IC-HP1 headphones (shown), IC-SM6 desk mic (shown), IC-GC4 world clock (shown), mobile mounting brackets, plus much more.

See ICOM equipment at your local ham store.

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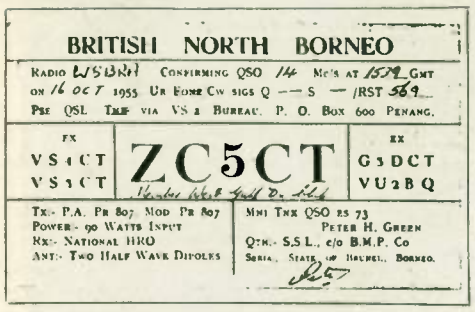
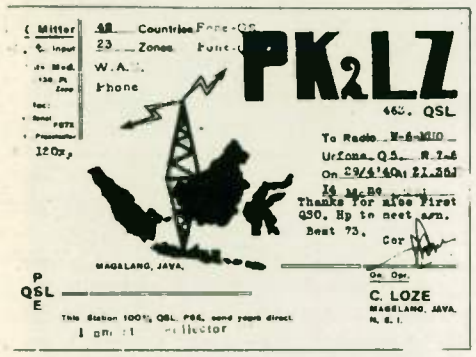
DX World

(*continued from page 21*)



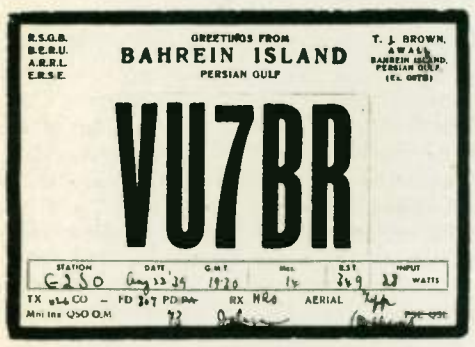
of the West Gulf DX Club, is unknown.

This country didn't disappear from the face of the map, as this part of Borneo is now that of East Malaysia.



Java, in the Netherlands East Indies, was another DXCC country to be deleted in 1963. Dick Saunders, W6MUO, provided us with the PK2LZ QSL for his contact with Magelang, Java, back on 29 April 1940. The contact was on 20-meter phone with no QRM. The operator is listed as C. Loze. This country now counts as Indonesia, and for many years was on the banned list.

The PK2LZ card shown here is multicolor with the islands in red, the call in green, and the rest of the printing in black. On the rear is stamped: "W6 QSL Manager, W6TI, Horrace R. Greer, Oakland".



Mal Geddes, Z23JO, submitted the VU7BR QSL card. No, it isn't a QSL for the Laccadives or Andaman. This one was for a contact made on 22 August 1939 with Bahrein Island on the Persian Gulf. The operator was listed as T.J. (John) Brown, ex-G5TB. The Callbook lists G5TB with the call reassigned to Mr. Brown, but we do not know if he is still active. Bahrein has gone through prefix changes, such as MP4B and the present A9.

Mal was operating as G2SO when he made this 20-meter CW contact with VU7BR in Awali.

The DX Bulletin DX survey

Last month, we listed the 10 most needed DXCC countries from a DX survey sent out to all subscribers of *The DX Bulletin*. The results of the survey listed 74 countries, beginning with the most needed down to the least needed. For your benefit, we have listed all 74 of them.

Rank	DXCC	Country	Percent	Movement
1	ZA	Albania	84	+3
2	VU7	Laccadive Islands	82	+1
3	XU	Kampuchea	78	+2
4	70	South Yemen	76	+2
5	XZ	Burma	74	+4
6	VU7	Andaman & Nicobar Islands	74	+2
7	3Y	Bouvet Island	73	0
8	CE0X	San Felix	72	+2
9	BY	China	71	−8
10	XV	Viet-Nam	68	+2
11	HK0M	Malpelo Island	68	0
12	YA	Afghanistan	66	+2
13	4W	Yemen	65	0
14	XW	Laos	53	+5
15	A6	United Arab Emirates	52	+2
16	5A	Libya	51	+5
17	ZL/K	Kermadec Islands	49	+3
18	S2	Bangladesh	47	+6
19	S9	Sao Tome and Principe	45	+3
20	1S	Spratly Islands	44	+5
21	SV	Mount Athos	42	+11
22	FO	Clipperton Island	39	+9
23	5U	Niger	39	+11
24	ZS2	Marion Island	37	+17
25	C9	Mozambique	37	+2
26	A5	Bhutan	36	−12
27	YV0	Aves Island	36	+9
28	BV	Taiwan	35	+21
29	VP8	South Sandwich Islands	34	+12
30	VP8	South Georgia Islands	34	+9
31	5R	Malagasy Republic	33	−1
32	YI	Iraq	33	−6
33	FR/G	Glorioso Island	32	−4
34	TT	Chad	31	−16
35	ET	Ethiopia	31	+12
36	3C0	Annobon	29	+6
37	1A0	S.M.O.M.	28	−9
38	FR/J	Juan de Nova, Europa	28	+18
39	FR/T	Tromelin	27	+4
40	VK9	Mellish Reef	27	−17
41	5X	Uganda	26	+11
42	60	Somali	26	+12
43	3C1	Equatorial Guinea	26	+12
44	TN	Congo	25	+1
45	FB8X	Kerguelen Island	24	+4
46	FB8W	Crozet	23	−30
47	ST0	Southern Sudan	23	NEW
48	KH5	Palmyra Island	22	+25
49	PY0	Trindade	22	−14
50	FH	Mayotte	21	+1
51	3B6	St. Brandon	21	+18
52	TJ	Cameroon	21	+12
53	TZ	Mali	20	−3
54	ZL/A	Auckland and Campbell	20	+9
55	VK0	Heard Island	19	−53
56	TI9	Cocos Island	19	+14
57	JX	Jan Mayen	19	+4
58	9U	Burundi	18	+1
59	FB8Z	Amsterdam Island	18	−15
60	KH5K	Kingman Reef	18	NEW
61	VK9	Mellish Reef	18	−38
62	D2	Angola	18	NEW
63		Abu Ail	17	−3
64	D6	Comoros	17	NEW
65	ZD9	Tristan da Cunha	17	−28
66	VK9	Cocos (Keeling) Island	17	NEW
67	JD1	Minami Torishima	17	NEW
68	T2	Tuvalu	17	NEW
69	VP8	South Orkney Islands	16	−12
70	VK9X	Christmas Island	16	NEW
71	5V	Togo	16	−4
72	VE1	Sable Island	16	+1
73	UG6	Armenia	16	NEW
74	TA	Turkey	16	NEW

The last three countries listed here are tied. The percentage column indicates the number of subscribers still needing that country, and the movement column is the change over the 1982 survey. Those countries indicated as "NEW" were not in the top 73 last year.

Sharp eyes will notice that Mellish Reef is listed twice as both rank 40 and 61. Could one of those be Willis Island? Or maybe it could be Macquarie Island. We would assume that rank 40 is the one that applies to Mellish Reef.

From this survey, one can see what a DXpedition can do to the existing standings. Look at rank 55, Heard Island. As a result of the two DXpeditions, at the same time no less, the ranking brought this one down from second place last year.

Look at your own needed list and see where you stand.

QSL routes

A4XVM	—G4AWJ	TU2NW	—AK3F
A92DR	—DF4NW	U5LAA	—UK5LAA
C30AAL	—F6EYS	U5LAZ	—UB5LCV
C53CL	—EA8ZZ	U5LDK	—UK5LDK
CT2FH	—W4JVU	V30WCY	—N6ADI
CY0SPI	—VE1ASJ	VE1SPI	—VE1ASJ
DF3GX/VP2V	—DF3GX	VK2WU/LH	—*(See Note 1)*
KD7P/KH2	—KS7L	VP8ALD	—G4CHD
ED5FVG	—EA5DTX	VQ9DF	—WB6YBY
EL2Z	—K0LST	VU2AUS	—VK3DIK
F0AHY/FC	—DL4FF	VU2JXO	—WA3TLB
FC0ICV	—I0XXR	W3TB/TF	—W3IVG
G4JVG/OH0	—G4JVG	W5JW/HB0	—W5UR
H5AE	—ZS6 Bureau	W5JW/3A	—W5UR
HB9AAX/ET3	—HB9MK	YS1UL	—WA0JYJ
HB0BOE	—DJ9ZB	YS9CHE	—WA0JYJ
I2SXD/IH9	—I2SXD	YS9RVE	—WA0JYJ
IM0LYN	—IS0LYN	ZF2DZ	—KC3DA
J28ED	—K4YT	ZK1MA	—ZK1CY
JW5QAA	—LA2GC	ZK9RW	—ZL1AMO
K1EF1/VP9	—K1EF1	ZL2BKM/C	—ZL2HE
K4II/VP9	—K4II	ZS1XR	—N7RO
KA2ORK/J3	—N2DRA	1Z9C	—JA8IXM
KC6RN	—JH1RNZ	3D2DM	—KE4OC
LA2WW/9L1	—N9AFW	3D2ER	—W5RBO
LX0WCY	—LX1BI	3D6BK	—NT6M
NP4Z	—WP4CCY	3V8DC	—IN3ASP
OX3AX	—OZ5DX	3V8PS	—IN3RZY
OZ2WCY	—OZ1ACB	5T5RR	—F1ANH
OZ4WCY	—OZ4ZT	5V7NG	—WB4LFM
P29KY	—JR1EMT	5V7RE	—DJ5RT
PY1JF/T	—PY1DOG	6Y5FS	—G3YDX
SV9JI	—DF2RG	9Q5JE	—DJ5TY

C21FS	—P.O. Box 83, NAURU
DL2GG/YV5	—R. Radloff, P.O. Box 76279, Caracas, VENEZUELA
DU4MGL	—P.O. Box 4050, Manila, PHILIPPINE ISLANDS
FH8OM/ZS3	—P.O. Box 22141, Windhoek, NAMIBIA
H44IA	—P.O. Box 219, Honiara, SOLOMON ISLANDS
ID9XRU	—P.O. Box 1, Libari Island, ITALY
KC6VD	—P.O. Box 220, Truk, ECI 96942
TU2NA	—Cidex 03C 84, Abidjan, IVORY COAST
YB5RD	—P.O. Box 156, Pekan Basu, INDONESIA
YC4FW	—P.O. Box 50, Bangka Island, INDONESIA
3D6AN	—P.O. Box 64, Manzini, SWAZILAND
4S7NS	—P.O. Box 907, Colombia, SRI LANKA
5N1WCY	—PMB 5184, Ibadan, NIGERIA
5N8YPM	—PMB 3130, Kano, NIGERIA

Notes
1. VK2WU/LH QSL cards from American stations may be sent via WA2BFW. All others should be sent via VK2WU.

Thanks to contributors DJ8RK, Z23JO, W2HN, N4SU, W6MUO, KS7L, AD1S, Northern California DX Foundation, Grupo Argentino de CW, Kansas DX Association, Kansas City DX Club, Stark DX Association, Redwood Empire DX Association, Northern California DX Club, Southern California DX Club, *The Long Island DX Bulletin*, *DX News Sheet* and *The DX Bulletin*.

Things look as if they have slowed down a bit. Perhaps it is a good time to check through your DX QSL cards to see what awards they may be applied to during this slack period. There are many DX awards available, which we have listed from time to time in this column. Also check the awards column by Scott Douglas, KB7SB, in **Worldradio**. Think positive, think DX. 73 de John, N6JM □

Youngest amateur in Morocco

Bryan Houser, KA2SNT — 9 year old — is the youngest radio amateur in Morocco.

Submitted by Wayne Houser, CN8CU

Bryan Houser, KA2SNT, at 9 years of age, is the youngest licensed amateur in Morocco, and will soon apply for a reciprocal CN8 call.

He is a student at the American School of Tangier where he is learning both Spanish and Arabic. He is the son of Wayne E. Houser, CN8CU/KJ6E, a Foreign Service officer with the Voice of America. □

Share your knowledge with your fellow amateur and Worldradio readers

EI-land visitor

Norm Roberts, KB7CD

Charlie Caughlin, EI3BA — a well-known amateur in the Dublin area — makes trips to the United States every three or four years. He visits his two brothers, Frank in Los Angeles and Tom in Hillsboro, Oregon, near Portland. Each time, Charlie would kid his brothers about becoming a member of the amateur fraternity.

Now, once again, Charlie was on his way to the United States for Frank's wedding and to do some visiting in the Portland, Oregon area. He had applied for a reciprocal license and was to pick it up

Charlie Caughlin, EI3BA, visiting in Portland, Oregon. *(Photo by Maria Roberts, KA7CHU)*

at Frank's home. What Charlie didn't know was that Tom had met a ham at work and had passed and received his Novice license. Frank knew about the license, but in the excitement of his wedding, forgot to tell Charlie. Was Charlie surprised when Tom casually mentioned that he, too, had a call — KA7NSS!

After the wedding, Charlie visited the tourist spots in the Los Angeles area, then went on to Acapulco, Mexico. Then he headed north to the Portland area, where he met some old friends and some new ones through 2 meters. Using the EI3BA call, some of the local amateurs thought it was a hoax at first. A lot wanted QSLs, and he had a 2-meter "pile-up." He met Norm Roberts, KB7CD, who had given Tom the Novice test, and Maria KA7CHU, Norm's XYL.

After several days of pleasant QSOs, he packed up his bags, gave the ICOM 2AT back to Norm, and headed for Dublin. Charlie promised he would be back soon, but in the meantime, see you on 15! □

ARRL as VEC

(continued from page 1)

Wireless Association, embracing a plan of mutual support and cooperation. The Board also authorized the signing of a memorandum of understanding with the Associated Public Safety Communications Officers, APCO.

The *ARRL Letter* will be made available at reduced cost to ARRL-affiliated club newsletter editors and to section-level appointees. San Diego was chosen as the site for the 1986 National Convention. Complete minutes will appear in December 1983 **QST**. □

The Sport of Contesting

Yuri Blanarovich, VE3BMV

There are Contests and there are contests — the biggies and the little ones. They all have their place, as do world championships, national hockey leagues and local county leagues. They satisfy "appetites" of the whole range of sportsmen. One different thing about Amateur Radio contests is that just about anyone can get in without going through the whole process of qualifying — through various stages of local, state, international tournaments, etc. If one is ready, equipment and operating-wise, he can jump in and have a crack at the "title".

However, there is more to becoming an overnight success than appears on the surface. It takes quite a bit of preparation, planning, knowledge, developing the skills, etc. Perhaps the most important area is the knowledge of radio-wave propagation and antennas. There are a few rules that contesters find out quickly:

Rule No. 31: If you can't hear them, you can't work them in the contest. You can work them on some "nets and lists systems." The key is the top-performing antenna system, because *Rule No. 27* says: Antenna is the best amplifier. If there is no signal coming from the antenna, there is no amplifier in the world that can amplify nothing! This is why the top scoring stations have those "unreal" monster antennas.

The point is, what wins the contest is the number of extra stations running all kinds of shortened antennas, bedspring specials, underground dipoles, etc. that claim to be getting out so well, but only if there is a good antenna system on the other side. Otherwise, the bands are dead for them. Another dB of gain might not seem worth bothering with, but if one looks at how many stations with limited capabilities are there, it becomes very obvious that an extra dB could mean another layer of "little" guys that not too many can hear. That brings up another rule — perhaps, *No. 1:*

If you get a pile-up calling non-stop for 10 minutes, you are slooow, and will not get too far. That is operating skill and can only be acquired by hard work and experience. You cannot buy it in the discount store.

The importance of this becomes very obvious when we listen to some DXpeditions. When there is an experienced operator (usually old contest tiger), things go bang-bang. If he is one of the closet-DX types that make five QSOs a year (three of them are new countries), he runs into an "animal farm," and this is the end of him.

Listening recently to "action" on BY1PK and HK0TU operations makes one wonder where all those "animals" come from. It is partially the "rare one's" fault. Things are getting sophisticated nowadays. Spread the news around, repeaters start kerchunking, and the whole world is there, trying to be the first one to work the "new one" (or maybe just to say hello again). Back in the old days, it took awhile when people were tuning around. (repeaters did not tell them whereishe, whatsabeamheading, whatsiscall, whatsmyreport, itsagoodone) and finding it one by one. So if there is no experienced operator, things get tough.

This is where the whole Amateur Radio community can benefit from the good, skilled contest operators. DXers get their new ones quickly; ragchewers do not get band-swamped by giant pile-ups (14,200 and up); even "animals" can work him and go away. It takes some work and contest operating to build up that skill. A good operator can run about 300+ QSOs per hour on phone and about 200+ on CW. There is no recipe on how to do it. There are some hints, but mainly it is a skill acquired by experience.

Personally, I have found that this is largely part of the subconscious mind that gets "trained" by doing it, just like walking or swimming. This is because there are a number of things to be done when one is operating a contest station: operate the radio (turn the knobs, filters, RIT); do the logging (writing, duping, multiplier count); listen very carefully and selectively (pick up the calls from the roaring mess); keep track of propagation or other bands; eat; talk to your kids, XYL or TVI'ed neighbor when you are knee-deep in JA pile-up.

The best suggestion on how to improve one's operating skills could be summarized as follows:

Do some thinking beforehand on how to organize your equipment for hands-free operation (no mikes standing on your logsheet, no one-second delay on your VOX, no clocks on the back wall, etc.). Position your radio-pieces on the table so you can minimize your movements and concentrate on logging.

Next, start working on developing your skills while keeping the above in mind, improving it as you go. To develop the skill, it is necessary to operate, operate, operate. A number of our senses get involved: hearing, sight, touch, speech. And controlling these is the brain.

The brain has fantastic capabilities and can do wonders if "trained". To confirm this fact, I have observed that in the past few years, when I am not doing much operating between contests, I feel very uneasy and slow during the first few hours of a contest. It takes about three hours to get back in shape — to "recall" all the routines from the subconscious brain. Then I get going like a machine or robot (radio-zombie?). It actually gets to the point where if my XYL walks in and asks a question, I sound like I just came from another planet. (The most likely answer is five-nine-o-four.) It takes awhile to switch back to "normal" mode.

The actual techniques of operating, picking up the calls from the "mashed potato" mess, would be a chapter in itself. Some notable operators like W4BPD, Don Miller, Jim Neiger and others could actually pick out more than one call from the pile-up. The capability of the ear-brain combination is, again, in the subconscious area and can be trained by experience.

The actual mechanism of logging gets involved — especially on CW — when you have to operate a keyer and write. There you have to remember the call for a moment, while you send, and then write it down. Many contesters dupe the logs while they go. It is beneficial, and it is recommended to do it at least for the not-so-common stuff. It saves time spent in the pile-ups on one we already have.

This skill of picking calls from a pile-up is very important, since a pile-up is a tremendous source of points. A good operator runs out of a messy pile-up very quickly and can then just sit and work them one by one, as they come.

This is where the future Big Gun or present Little Pistol can learn a lot by getting his ears wet operating in the contest. It might be better to start with a little contest, where there is a better chance of winning the certificate or trophy. Smaller contests are usually slower in pace, with less activity, but great for acquiring the skill of hunting.

One thing that makes contesting very attractive is the fact that before the contest, everyone is equal — that is, zero! The contest starts and goes on for 48 hours or whatever it takes. At the end, the smoke clears and we find out how we did.

I think contesting is becoming more and more attractive for many sports-minded amateurs and gives more satisfaction, because in any given contest, there could be only one No. 1 in the world, country or club. Every contest is a fresh event, unlike DXCC, where after so many years of chasing the stuff, you reach the top — the Honor Roll, only to find there are hundreds of others already there.

Each contest is another chance to find out if we have improved our station or skills, and gives us a means of comparison and something to shoot for. Another benefit many find is the fact that a contest is really "only" a 48-hour affair (plus preparation and recovery), as opposed to three to six hours-a-day DX'ing, which some dedicated types do.

The Contests (with a big C) are, in order of value, participation and popularity: 1) CQ WW DX Contest, phone and CW; 2) CQ WPX SSB and CW; 3) ARRL DX, phone and CW; 4) Radiosport.

The contests (with a small C), not necessarily in the same order, are: ITU, WAE, OK DX, VK-ZL, All Asian, Scandinavian and a variety of monoband contests. Then there is a variety of domestic or localized contests, such as: Sweepstakes, CAN-AM, NCJ Sprint and rest of the QSO parties, etc.

It is interesting to note that the most popular contests are run by a group of contest-loving volunteers — mostly tops in their field, while those run by "professionals" (= paid by ARRL) do not seem to make it. Once a contester gets more serious and starts selecting operations, the obvious choice is the one that offers more — be it format, rules, all-time records, clarity of listings, or the way the results are presented.

CQ Magazine's Contest Committee, comprised of volunteers, has to be commended for the super job done. We hope the basic rules and scoring remain the same. No need to fix something that is working, unless one wants to mess it up. One big boost might be to move the CQ WW CW portion to the last weekend in September, when propagation is super (the CW boys deserve it!) and Thanksgiving weekend in the United States is not disturbed. The CW portion of the WPX contest could also use an earlier date, perhaps February?

Winter months are here, and with them a number of monoband contests: CQ 160M, ARRL 160M, 10M, 73 160M, etc. Good time to polish the skills and test the antennas to see if they are good or big enough to hear what our neighbor is working. 73 and Good Contesting! □

HAM RADIO LICENSES SIMPLE TO GET UNDER NEW FCC RULES

FCC GOING PUBLIC WITH ALL AMATEUR RADIO TEST QUESTIONS

BY GORDON WEST, WB6NOA

How Would You Like Ham Call Letters in 9 Weeks?

Are you one of the thousands of hobby radio enthusiasts who wanted a ham radio ticket, but were stymied by the code and heavy technical tests? If so, there is good news from the Federal Communications Commission. The FCC is now going public with all test questions and will be allowing amateur radio volunteers to administer the examinations.

The FCC Notice of Proposed Rulemaking NPR Docket 83-27 outlines a volunteer examiner program where local hams will take over the responsibility of giving ham radio tests. Public Law 97-259 amended the Communications Act of 1934, and that allowed the FCC to accept the voluntary services of licensed radio amateurs in preparing and administering the Amateur Radio Service exams.

No longer will exam questions be kept secret. Right now you can receive all of the 200 test questions for the amateur radio beginner license test, the Novice License. Similar to aircraft FAA exam procedures, publishing companies and Radio School, Inc., have developed multiple-choice-type answers for these questions, as well as a key giving the correct answer for every question. This allows the beginner student to know exactly what is required to pass the 20-question FCC Novice test.

The FCC will soon publish all the questions for the amateur radio Technician, Advanced, and Extra Class theory tests, too.

BUT WHAT ABOUT THE CODE? The Morse Code requirements still stand for any amateur radio license. For the beginner regular classroom instruction, Radio School offers a complete home-study Novice license course. In about 30 days after receiving the complete course, you should be prepared to have a local ham Novice license, you must send and receive international Morse Code at 5 words per minute. This is slow enough that many students learn the code at this speed within 30 days. The code test is administered by a neighbor volunteer examiner ham, relieving the applicant of the pressure of an FCC-administered code test. You can take the code test in a relaxed atmosphere in your home, or at the volunteer examiner's ham shack.

Once you pass the 5 word-per-minute code test, you won't need to take the code test over again to obtain the coveted Technician, voice-class license. The Technician class license lets you operate voice through the satellites, repeaters on 2 meters, plus skip propagation on 6 meters. The Technician license only requires a 50-question multiple-choice exam to be passed. Then, with the Technician license, it's only a 13 word-per-minute code test to get your worldwide, voice class, General license.

A company called "Radio School" let s you get into ham radio the easy way. If you don't have time for regular classroom instruction, Radio School offers a complete home-study Novice license course. In about 30 days after receiving the complete course, you should be prepared to have a local ham volunteer give you the code and theory test, and pass with flying colors. It takes about four weeks for your call signs to arrive in your mailbox after you pass the test and your volunteer ham examiner sends in the FCC forms.

"Dual stereo voice and code tracks allow the tapes to play in the car, play on regular mono equipment, or at home on a stereo..."

Here is what the course consists of:

- 4-set stereo code cassette long play tapes
- 2-set stereo question and answer theory tapes
- 2 4-set vinyl cassette carrying cases
- 1 fully illustrated Novice class Q&A license manual
- FCC published 200 Novice test questions
- Typical Novice class multiple choice exam
- 5 wpm code test tape for your volunteer examiner
- FCC Form 610 for you and the volunteer examiner
- Examination answer sheet for your 20-question theory test
- Detailed instructions, for you, on how to find a local volunteer amateur radio examiner

Everything for you and your volunteer ham examiner to pass the Novice license test.

Also included are detailed instructions to the volunteer examiner on how to conduct the actual test, plus his test questions and code test tape.

As you can see, everything is here for both you and your ham volunteer examiner. Courses are also available for all of the other grades of ham licenses, too.

You may order the Radio School beginner course by mail or telephone. Then, as soon as it arrives, try it out in the privacy of your home and car, and see how easy it is to learn the code and understand the easy beginner theory questions. After that, if you aren't 100 percent satisfied with your instructional material, simply send it back and Radio School will see to it that you get a complete refund with no questions asked!

Just fill out the coupon below and send it to Radio School with your personal check. Your order will be sent out the very next day.

I will look forward to hearing you on the air very soon. You are going to like this beginner course I have designed and recorded in stereo, just for you!

NO-RISK ORDER COUPON

(Please fill in and mail today.)

TO: GORDON WEST
RADIO SCHOOL, INC.
2414 College Drive
Costa Mesa, CA 92626

Phone Inquiries
(714) 549-5000
Mon-Fri 9am-4pm
Calif. Time

DEAR GORDON:

Yes, I want my ham license. I want to try your Novice course. I am enclosing my personal check or money order for $60.00 plus $4.00 for postage and handling. (Total $64.00) I understand I must be 100% satisfied, or that within 30 days I may return the course and receive a complete refund with no questions asked. Calif. res. add $3.60 sales tax.

NAME_____

ADDRESS_____

CITY_____STATE_____ZIP_____

P.S.: Check here if you are already a ham and want more info on our other upgrading courses, plus free test tapes to qualified volunteer examiners. ☐

AWARDS

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

For a change this month, I would like to concentrate on county awards rather than our usual DX presentations. Awards of this nature can be especially interesting when band conditions are on the poor side and DX is sparse. You might even get hooked on it.

There are advantages in county hunting for those starting out in the pursuit of awards. It is an excellent way to hone your skills, and the required QSLs are easier and less expensive to obtain. With over 3,000 U.S. counties, this has to be a major consideration!

The awards presented below are offered by the International Certificate Hunters Club (ICHC) and the following applies to all that are listed.

1) All applications should be sent to: CHC HQ, P.O. Box IARS, Glendale, CA 91206-7609.

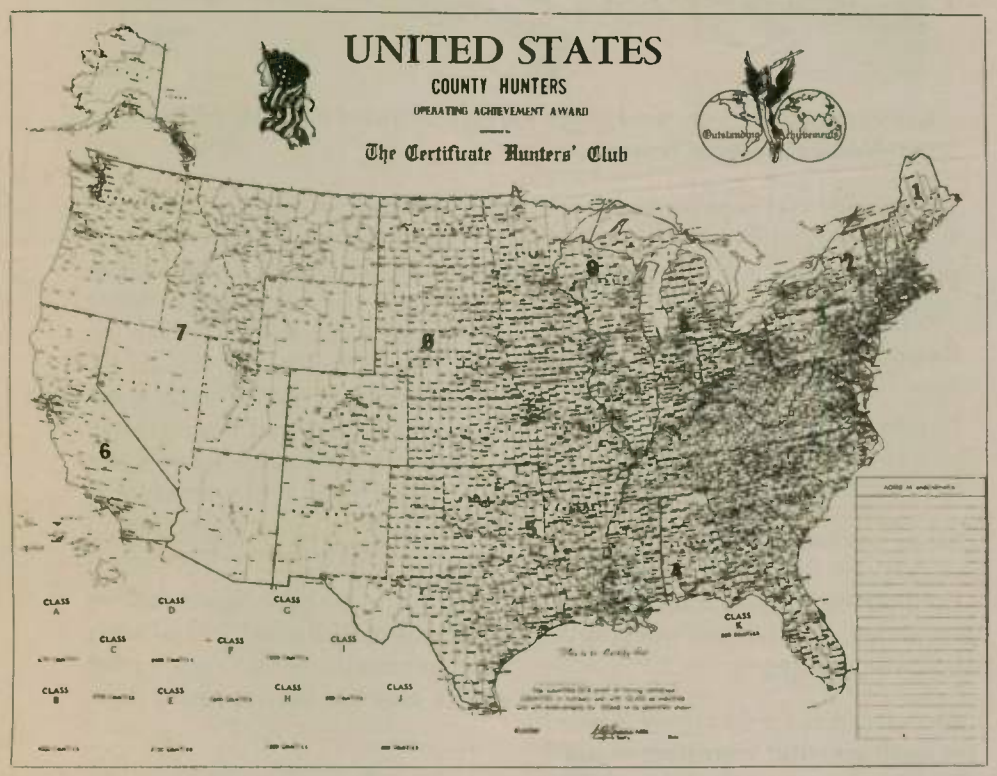
2) General Certification Rules (GCR) apply to all applications. This means that you must have your cards sighted and a certification signed by either two licensed amateurs, a local radio club or a notary public testifying that the cards offered for credit toward the applied-for award are actually in your possession. *DO NOT SEND QSLs.*

3) A log extract listing the counties in alphabetical order by state must be included and is considered your application. Please print!

4) Endorsements and requests must bear the number of your original award.

5) An application fee of $4 for each new award (no additional cost for endorsements at the time of the original application) or $1 for each endorsement to a previously issued award must accompany your request.

6) The awards are available to both licensed amateurs and SWLs worldwide. Endorsements for any band or mode are available upon request, providing the accompanying application supports your request.



USA-CA (United States of America County Hunters Award)

This is the CHC's equivalent to CQ Magazine's county award and follows along similar lines, with these exceptions: contacts may be made anywhere within the continental borders of the USA, Alaska and Hawaii, and will be considered as creditable; the basic award is issued for 300 different counties confirmed; and endorsements are in increments of 300.

Because of the high number of listings and ease of record-keeping, the suggested form of log extract/application would be either the county awards section of the Directory of Certificates and Awards or the CQ Magazine county award booklet.

The award measures 17½" × 22½" and is printed in one color on a fine parchtone bond. The award is designed so the recipient can color in those counties confirmed, thus making a super-looking

VISIT 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.

Borealis Amateur Radio Club
Mission Road
P.O. Box O
North Pole, AK 99705

ARIZONA

The Metropolitan A.R.C.
Harper Woods City Hall
I-94 & Eastwood (Between Vernier & Moross)
Repeater - 448.55T./443.55R.
1st Sunday/monthly - 2:00 p.m.

Tuscon Repeater Association
P.O. Box 40371, Tucson, AZ 85717-0371
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

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

The Amateur Radio Club of El Cajon, Inc.
Parkway Jr. High School
La Mesa, California
2nd Thursday/monthly — 7:30 p.m.

Conejo Valley Amateur Radio Club
Home Federal Savings and Loan
454 W. Hillcrest Drive
Thousand Oaks, CA
1st Thursday/monthly — 8:00 p.m.

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.

MT. Wilson Repeater Association
P.O. Box 977
Yorba Linda, CA 92686
WA6KOS Repeater — input 146.40 output 147.435
Amateur Radio QST Net — Monday at 7:00 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 Fernando Valley ARC (W6SD)
Red Cross Building
14717 Sherman Way
Van Nuys, CA 91704
3rd Friday/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.

S. Counties Amateur Teleprinter Society (SCATS)
2nd Sat/monthly — alternates in L.A. & Orange Counties.
60 WPM RTTY Net, Wed. 8 p.m. on 146.10/.70 W6IWO/RPT.
For info. call Jean Carter, KA6HJK, (714) 523-9519

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

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 147.165/.765 Simplex 147.48

Six Meter Club of Chicago, Inc.
Land of Lincoln Savings
6655 W. Cermak Rd.
Berwyn, IL 60402
2nd Friday/monthly — 8:00 p.m.

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 - 7:30 p.m. rpter 146.13/73

South Bay Amateur Association
P.O. Box 91 • Fremont, CA 94536
Fremont School, 40230 Laiolo Rd
3rd Wednesday — 7:30 p.m.

Stanislaus Amateur Radio Assoc. (SARA)
P.O. Box 4601 Modesto, CA 95352
Stanislaus Co. Administration Bldg.
12th & H Streets • 3rd Thurs./monthly 7:30 p.m.
145.39 MHz WD6EJF

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

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

Western Amateur Radio Assoc.
Cerritos Park East
166th St. and Carmenita Ave.
Cerritos, CA.
1st Tuesday/monthly 7:00 p.m. - 145.400

West Valley A.R.A. W6PIY
Meets: Los Gatos Red Cross Bldg.
18011 Los Gatos - Saratoga Rd.
Los Gatos, CA 95030
1st and 3rd Wednesdays/monthly

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

Platinum Coast Amateur Radio Society, Inc.
American Red Cross Building
1150 S. Hickory • Melbourne, FL 32901
Dan Yelverton WA4RGK President
Call-in 25/85 Rptr. • Meets 2nd Mon/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.

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.

ILLINOIS

Bolingbrook Amateur Radio Society
Fountaindale Library
300 W. Briarcliff Rd., Bolingbrook
(312) 739-0045 / call in 147.93/33
3rd Monday/monthly - 7:00 p.m.

Fox River Radio League
Valley National Bank, Lower Level
Northgate Shopping Ctr. & RT. 31, Aurora, IL
(312) 898-2779 for more information
2nd Tuesday/monthly - 7:30 p.m.

INDIANA

Allen Co. Amateur Radio Tech'l Society, Inc.
PO Box 10342, Ft. Wayne, IN 46851
Allen-Wells Chapter 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

Northeastern Indiana ARC
John E. Zumbaugh, WD9CVI
507 E. Quincy St., Garrett, IN 46738
Daily 6 p.m. net on 147.96/.36
2nd Tuesday/monthly - 7:30 p.m.

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.

MARYLAND

Frederick Amateur Radio Club
Frederic Electronics
Orville C. Bowersox, N3AGM
(301) 662-4550
2nd Tuesday/monthly — 2000

MASSACHUSETTS

Q.R.A. (Quannapowitt Radio Assoc.)
Masonic Hall — Salem Street
Wakefield, MA 01880
2nd Friday/monthly Sept-May 8:00 p.m.

MISSOURI

Heart of America Radio Club
3521 Broadway
Kansas City, MO 64111
3rd Tuesday/monthly

NEW HAMPSHIRE

Great Bay Radio Assoc.
Dover District Court, Dover.
(603) 332-8667/332-8015
WB1CAG/Talk-in 147.57
2nd Sunday/monthly — 7:00 p.m.

NEW JERSEY

Central New Jersey Chapter No 138, QCWA
Net: Ea Tue. evening-10:00 p.m. 147.645/147.045 MHz
Mtgs: Quarterly; Membership or more info:
Bob McKinley, W2OMR, Sec., 89 Stratford Rd.,
Tinton Falls, N.J. 07724 (201) 542-2113

Gloucester County ARC, W2MMD
PO Box 370, Pitman, NJ 08071
VFW Post #2117, Woodbury, NJ
1st Wednesday/monthly - 8:00 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: Tom Koutsis, WB2IQT, 1341 Harry Ln.,
No. Merrick, NY 11566. Net Mon. 8:30 p.m. 146.25/85
Meets 1st Tues/8 p.m., H.B. Thompson, JHS, Syosset

Staten Island Amateur Radio Assn. (SIARA)
P.O. Box 495
Staten Island, New York 10314
Third Friday/monthly — 8:00 p.m.
Rm. B-127, College of S.I. — Sunnyside

Suffolk County Radio Club
Meets 1st Tues. monthly, 8 p.m.
Bohemia Recreation Center
Smithtown Ave., Bohemia, Long Island
More info! Dave Potter, W2GZD, (516) 472-2394

Westchester Emergency Communications Assoc.
Little Theater — County Center
White Plains, N.Y.
Talk-in WB2ZII/R 147.66/06
2nd Monday - 8 p.m.

OHIO

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

NOARS-Northern Ohio Amateur Radio Society
P.O. Box 354, Lorain, OH 44052-3rd Mon. 7:30 p.m.
K8KRG — Home of the WW II Submarine USS COD
WB8JBM — Noars Contest Station — K8KRG/Repeaters: —
146.10/70; 144.55/145.15; 449.8/444.8; 223.10/224.70

Xenia Weather Amateur Radio Net (XWARN)
2nd and 4th Monday — 7:30 p.m.
Xenia PD, City Bldg.
call in/147.165-147.765
Xenia, Ohio

OREGON

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

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.

WISCONSIN

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

multi-colored display depicting your progress as you work through the award.

Individual State County Awards

Measuring 8½" × 11", these are printed generally in two or more colors on a fine parchtone bond. In the interest of space, I will list the minimum requirements to the maximum possible for each award described below.

Alaska: Issued for confirmed contact with at least two of the four available counties (judicial districts).

Arizona: Issued for confirmed contact with at least 20 of the possible 58 counties.

Hawaii: Issued for confirmed contact with at least three of the possible five counties.

Idaho: Issued for confirmed contact with at least 15 of the 44 possible counties.

Iowa: Issued for confirmed contact with at least 25 of the possible 99 counties.

Kansas: Issued for confirmed contact with at least 15 of the possible 105 counties.

Michigan: Issued for confirmed contact with at least 20 of the possible 83 counties.

Montana: Issued for confirmed contact with at least 15 of the possible 56 counties.

Nevada: Issued for confirmed contact with at least eight of the possible 17 counties.

Ohio: Issued for confirmed contact with at least 10 of the possible 88 counties.

Oregon: Issued for confirmed contact with at least 10 of the possible 36 counties.

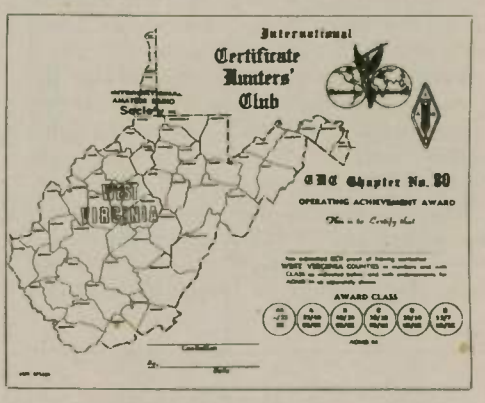
Oklahoma: Issued for confirmed contact with at least 15 of the possible 77 counties.

Utah: Issued for confirmed contact with at least seven of the possible 29 counties.

Washington: Issued for confirmed contact with at least 10 of the possible 39 counties.

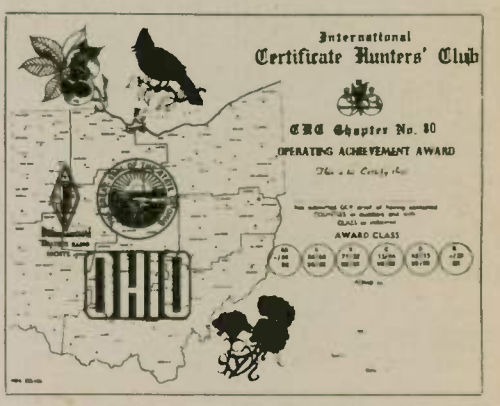
West Virginia: issued for confirmed contact with at least 10 of the possible 55 counties.

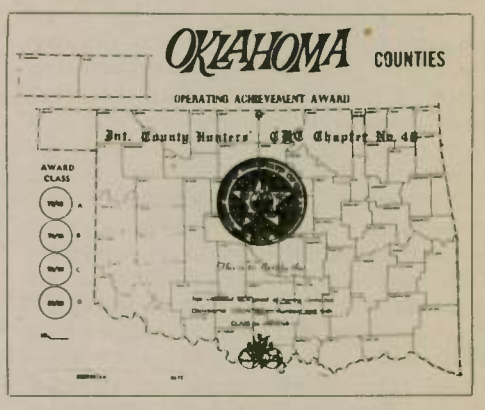
Wyoming: Issued for confirmed contact with at least seven of the possible 23 counties.



Here are a few of a different variety:

7K Award: Issued for confirmed contact with 50 different amateurs located within the 7th U.S. call district. An excellent award for the new amateur.





Land of Lincoln: Issued for confirmed contact with at least 30 different cities of the state of Illionois.

Cook County Award: Issued for confirmed contact with at least 25 different amateurs located in Cook County.

San Diego Award: Issued for confirmed contact with at least 25 different amateurs located within San Diego County, California.

Well, that should keep you busy until next month. Till then, Best 73, Scott □

Seasons Greetings

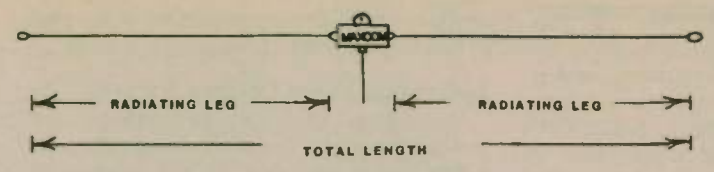


Figure 1

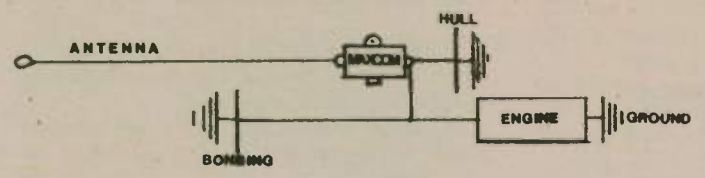


Figure A

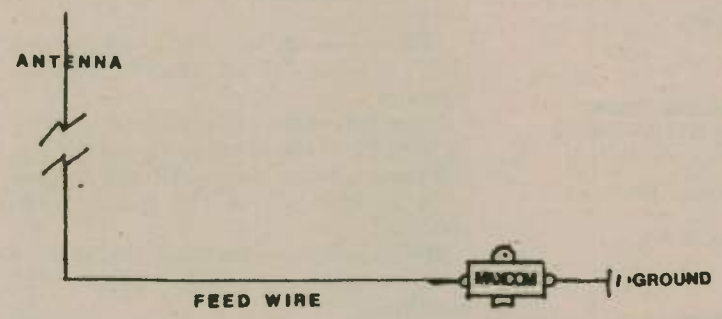


Figure C

Figure D

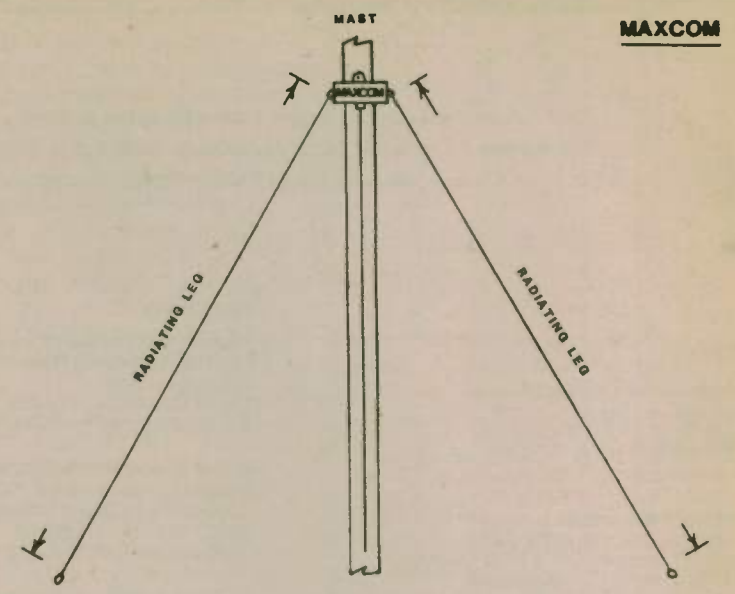


Figure 2

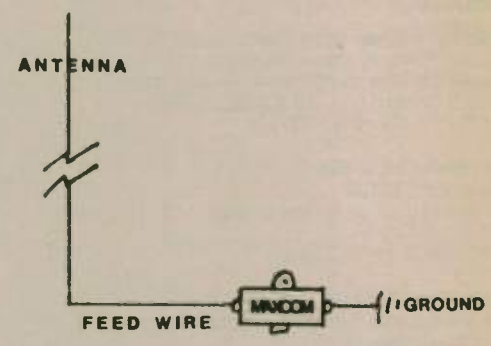


Figure B

The ultimate tuner?

For high frequency operation on amateur bands from 10 meters through 160 meters, a tuned antenna system that perfectly matches the load to the solid-state transceiver is necessary. The new solid-state sets will not operate with any VSWR over 1.8 to 1.

Maritime mobile installations sometimes use mobile whips and a good ground system for good range. Each time you choose a new band, you must go out and change the mobile whip assembly for that band. Yes, old tri-band mobile whips work nicely, too, in most cases.

Generally, greater range and stronger signal reports can be achieved with longer whips. Back-stays make excellent antennas on sailboats when used in conjunction with an antenna tuner and a good ground system. Long, 25 ft. fiberglass whips also work well for powerboats. These whips also require an antenna tuner and a good ground system.

The most popular tuners we have used in marine installations where a non-resident antenna has been chosen are the Cubic, Nye and MFJ tuners, and the new ICOM tuner. Each of these tuners will allow the mariner to manually tune up any long-wire antenna, back-stay antenna, non-resonant whip antenna, or just about anything to radiate their high frequency signal well.

The mariner has the tuner next to the transceiver to allow easy adjustment during band change. Ideally, the tuner should go back aft and directly beneath the feedpoint. However, since the tuner must be adjusted for each band change, manual tuners are operated next to the transceiver.

There are mobile tuners that will automatically resonate the antenna system for a ham band while being remotely operated. Stepping switching allows the tuner to select the right coils and caps for the ham band of operation. Unfortunately, these tuners may not allow the set to be operated, in an emergency, on frequencies assigned to the marine radio service. Although it is illegal to use a ham set on marine frequencies, in an emergency, anything goes. It would be nice to have an automatic antenna tuner that would resonate the load to any frequency between 3 and 30 MHz the mariner may choose.

At last, one is available

Solid-state (no relays, no stepping motors, and no manual or electromechanical coil changing) tuners are available from commercial marine, single-sideband companies. Companies like SGC, Inc., Stephens Engineering, and others have developed marine single-sideband tuners that work on any frequency without moving parts. These tuners are quite large (twice the size of a breadbox) and normally list for about $1,800. Simply hit them with about 10 watts, and automatically a microprocessor circuit channels the RF through the right coils and caps and resonates the antenna, and gives your radio minimum SWR with maximum transfer of energy to the load.

The military also uses these solid-state, automatic antenna tuners for frequency-hopping techniques. They need a tuner that can respond to frequency changes within 10 ms, and must be tunable throughout the complete high frequency spectrum.

We have finally located a good performing, solid-state automatic tuner that works well in marine, long-wire applications as well as in home dipole or long-wire installations. The antenna tuner is called "Maxcom," and has been tested and used by the military for years — so states the manufacturer.

This automatic tuner will tune any long-wire antenna between 300 kHz to 70 MHz. That's right — from below the AM broadcast band to well above the 6-meter Amateur Radio band! The VSWR will always be less than 1.5:1 with just one antenna!

I didn't believe it either. I brought in one of these little jewels from the company in Florida and gave it some real testing on several different types of high frequency installations. We chose the Maxcom 200 which allows for 200 watts maximum input power, PEP. We found that this model (which is their lowest power model) works fine on today's solid-state high frequency transceiver. The unit weighed 2 pounds, and measured 4.75″ wide, 3.75″ high, and 2.25″ deep. For those of you not handy with a ruler, the antenna tuner fits in the palm of your hand.

This little device requires no power. It does its thing automatically from the RF power output of your transceiver. It features a standard SO-239 input from your coaxial cable plug. Resembling a balun, the tuner has two connecting points for a dipole. If you want to run it

The Maxcom — tested on three boats

on a whip, one connecting point is designated as the ground connection point. If you want to run it as an inverted-L, the ground end goes on the wire closest to the earth.

We were amazed

We first tried our tuner on a makeshift dipole strung up between two trees. The manual indicates that each side of a dipole on the automatic antenna tuner must be longer than 35 feet. We tried 40 feet per side — give or take one or two feet. Our 430S (Kenwood) tuned up on the dipole like a champ — full power output from 10 meters all the way down to 160 meters. We looked at the VSWR, and it was well below 1.5 to 1 on any and every frequency we could get out of our set. (We won't admit all-band transmit.)

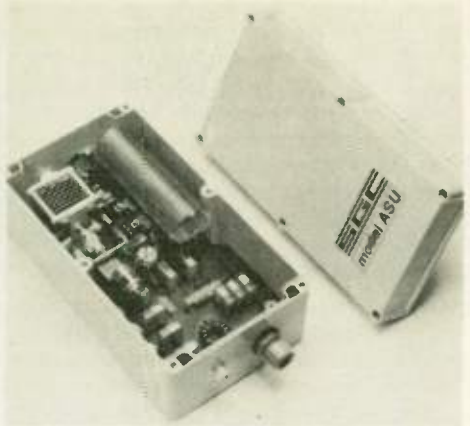
However, any perfect match can also be achieved on a 50-ohm resistor in a dummy load, so the true test was on-the-air evaluations. Every station we could hear we worked! In comparing our signal to our best performing mobile whip (a Cubic model 45 adjustable coil tap whip), our automatic antenna system worked better!

We then hoisted the feedpoint up, and dropped the legs of the dipole to form an inverted Vee. Same performance, and a better omni-directional radiation pattern. My friend, Larry Henderson, KA6LDP, brought over his 6-meter ICOM and it tuned up just fine on 6. We then went back to the 430 and worked a station 800 miles away on 160 meters.

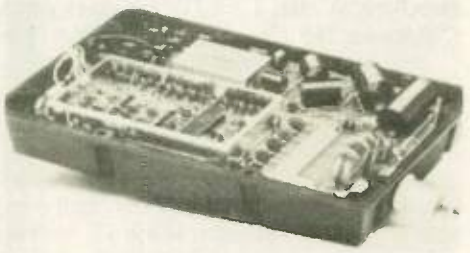
Our next test was aboard a sailboat, again using the antenna in an inverted-Vee fashion. A perfect match on all frequencies, and performance out-did individual mobile whips from Anixter. We then compared it to a hastily erected 20-meter cut-to-frequency inverted Vee (16 feet per leg), and on 20 meters, performance was almost identical. However, without a tuner, a 20-meter inverted Vee won't work on any other frequency. With the Maxcom on-line, we could work everywhere.

We then tried grounding the ground terminal of the tuner and running a 60 ft.-long wire from the stern up to the masthead. We used the lifelines and a throw-over zinc as our temporary ground source. Again, everything tuned up flat from 160 to 10 meters, and we exchanged super signal reports from many stations around the country. This configuration outperformed the mobile whips hands down because of the sheer length of the 70 ft. radiator wire.

I then went over to a powerboat with an Atlas installation, and hooked up to their non-resonant Shakespeare 21 ft. whip. (The whip normally goes to their marine sideband system.) We used the marine sideband ground system as the other side of our antenna circuit. Again, the Maxcom automatic tuner immediately gave us minimum SWR on all frequencies and good signal reports.



Old-style fixed tuner for remote mounting. Note relays and drive motor.



Automatic HF-SSB antenna tuner available from Motorola — similar to Maxcom with no moving parts. (Motorola is a trademark of Motorola Inc.)

Field strength tests

We *did* notice that under long key-down periods, the unit gets warm. This means inefficiency somewhere down the line. We noticed that it gets warmer on lower frequencies rather than high frequencies.

Looking over the specs, we see why: Their efficiency graphs indicate a slightly higher loss on low frequencies than on high frequencies. Our field strength measurement matched the performance of the Maxcom dipole to a conventional halfway dipole at a set distance. Each side of the Maxcom dipole was set at an arbitrary 50 feet.

On 40 meters and down, the Maxcom appeared to be about 75 percent efficient as a much longer halfway dipole. On 20 meters and above, the Maxcom 50-foot-per-side, automatically tuned dipole appeared to be 80-90 percent as efficient as a smaller halfway dipole.

What all this means is that there is about a 20 percent loss of power output when used with a random length of wire.

We found that this 20 percent loss is quite reasonable when you take into account the myriad of frequencies it will match. We also found comparable losses in manual tuners and even the very expensive electromechanical tuners used in marine electronic installations. Also, the

(*please turn to page 35*)

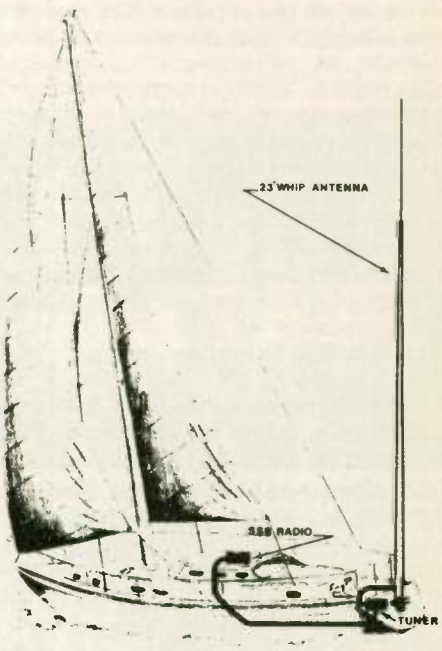
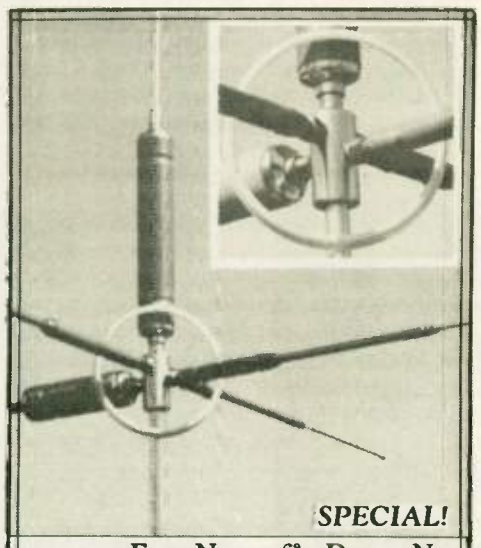


Figure 3 — *Stern-mounted whip antenna*



SPECIAL!

For Nov. & Dec.: No shipping charges in U.S. and Canada only. Enclose check with order.

X-PANDA-FIVE **$15.00**

- X-PANDA-FIVE converts your Hustler or Hy-Gain mobile antenna from one to five bands. Add as many resonators for the bands you wish to operate. Adjust resonators for minimum SWR, no stopping to change bands any more.
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- X-PANDA-FIVE will accept either regular or super size resonators.

Dealer inquiries invited.

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State/Zip _____

J.L. Industries
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Hallandale, FL 33009

QUARTER CENTURY WIRELESS ASSOCIATION INC.

Esther Given, W6BDE

LX1JW awarded medal

The National Convention of the Quarter Century Wireless Association (QCWA) was held at the Denver Tech Center Sheraton, 30 September and 01 October. Stuart Meyer, W2GHK, presided over the meetings of the board of directors and the open meeting of the QCWA membership.

The following officers and directors who were elected to office this summer assumed their positions at the September 30th board meeting: Stuart Meyer, W2GHK, president; Leland Smith, W5KL, vice president; Wesley Randles, W4COW, treasurer; and directors Ethel Smith, K4LMB; Leo Meyerson, W0GFQ; Ron Hesler, VE1SH; Gerhard Jacoby, DL3ME; Harry Dannals, W2HD; Lew McCoy, W1ICP; Hal Sears, W5NC; Esther Given, W6BDE; Art Milligan, W8KW; and Wade Holland, W4AZT. James Walsh, W7LVN, was chosen to be secretary of the international organization to replace elected secretary, Max Arnold W4WHN, who became a Silent Key in August.

Dr. Yardley Beers, W0JF (left), pinning the 1983 QCWA Hall of Fame medal on Dr. Jean Wolff, LX1JW (center), at the QCWA National Convention in Denver, Colorado. On the right is QCWA Vice President Leland Smith, W5KL.

The Colorado Chapter of QCWA sponsored the convention under the chairmanship of Sol Abramowitz, W0WSK, and an able committee. The convention breakfast and banquet were presided over by Bob Jensen, W0WLN, president of the Colorado QCWA Chapter.

A highlight at the QCWA Nation Convention was the personal presentation of the 1983 Hall of Fame Award to Dr. Jean Wolff, LX1JW. The pinning of the medal was done by Dr. Yardley Beers, W0JF, a member of the Colorado Chapter of QCWA.

Jean was first licensed in 1918 at the age of 14. He has enjoyed electronics as a profession as well as a hobby. He entered the communication service of the Grand Duchy of Luxembourg and advanced to the position of Director General of all communications in that country. He was one of the founders of the IARU and is acquainted with many of the highest officials and ministers involved in European communications activities, and has — through and with this group — done much to promote and protect Amateur Radio communications in the European area.

In addition to QCWA's Hall of Fame Medal, Jean is honorary president of the European Communications Engineers, holds the Cross of Merit from West Germany, the French Legion d'Honneur and the U.S. Medal of Freedom. He is an active member of QCWA Chapter 106 in West Germany and operates on all amateur bands.

•

QCWA's Silent Key Memorial Fund is now well above the original goal of $25,000 and a new target of $50,000 has been set. Three scholarships were awarded in 1983 by QCWA. Recipients were: Bruce Wade, N9UR, Milwaukee, Wisconsin; Marc Vernon, KI9V, Hinsdale, Illinois; and Paul Sargis, KI6U, Modesto, California. These and future awards are generated solely from interest of dividends from the scholarship funds. □

1984 YLRL officers

Following is a list of the 1984 YLRL officers:

President Rose Ellen Bills, N2RE; **Vice President** Marilyn Backys, WB9TDR; **Secretary** Jeanette Ellis, WO4U; **Disbursing Treasurer** Karla Holmes, WA1UVJ; **Receiving Treasurer #1** — Barbara Robinson, WB1ACA; **Receiving Treasurer #2** — Mary Lou Brown, N7DHA; **Receiving Treasurer #3** — Becky Skinner, KA9GWE.

1st District — no candidates; **2nd District** — Minerva Fronhofer, WB2JNL; **3rd District** — Betsy Robinson, WB3FQH; **4th District** — Carol Shrader, WI4K; **5th District** — Billie Hill, WB5YLI; **6th District** — Jo Anne Dow, WA6ZGM; **7th District** — Beulah Barrick, W6NLM/7; **8th District** — Eila Russell, WA8EBS; **9th District** — Adah Elliott, W9RTH; **10th District** — Marjorie Tiritilli, KB0ZC; **KH6 District** — no candidates; **KL7 District** — Betty Marsh, KL7FJW; **VE District** — Thelma Woodhouse, VE3CLT.

—Marilyn Backys, WB9TDR □

Six members of the Central New Jersey Chapter No. 138, QCWA, are shown here holding the Chapter's "Diamond Jubilee Award." To be eligible for this award, a member must have attained the age of 75 years *and* have been licensed as an amateur for 50 or more continuous years. The award is actually a class of Chapter Membership. Diamond Jubilee members are not required to pay annual dues. The members are (left to right): Ed Coxey, W2AFD; Melvin Cranmer, W2BYM; Frank Gunther, W2ALS, past National QCWA President; William Haas, W2GMY; William Gould, W1NP/K2NP; and John Mulhern, KA2OYY.

Seven members of the Central New Jersey Chapter No. 138, QCWA are shown here holding Anniversary Certificates, which were presented by the Chapter's President Charles Gspann, W2ZEE. All the men received either the Golden Anniversary and/or the 50-year Continuously Licensed Certificates, except John Mulhern, KA2OYY, and Irv Gallagher, W3CRW, who received the 60th Anniversary Golden Certificate. The members are (left to right): Charles O'Malley, W2KOE; Al Dabb, W2CAY; Ellis Emery, W2EHN; John Mulhern, KA2OYY; Edward Coxey, W2AFD; Paul Johnson, W2GMB; and Irving Gallagher, W2CRW. *(Photos by Phil Petersen, W2DME)*

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION
(Required by 39 U.S.C. 3685)

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I certify that the statements made by me above are correct and complete.

ARMOND M. NOBLE, Publisher

Maureen Pranghofer, KFØI

Recently, while browsing through a September copy of **Worldradio** taped for me by the generosity of George Hickin, W4GH, my memory was jolted by the realization that I had never reported the results of the Courage HANDI-HAM August Radio Camp whose proposed curriculum was described in a previous article. Now that a West Coast camp is held in Malibu, California, it is hard for me to think in retrospect, except for one point.

At past Radio Camps, students were divided into classes for specific licenses. Last August, students were given the opportunity to choose their own curriculum from a list of several seminars covering areas from antenna construction to Ohm's Law. It was discovered, however, that this structure did not prove adequate enough for the Novice and General Class participants. So this past January, students were divided into classes for Novice and General, and those working toward a possible Extra or Advanced upgrade were allowed to select their own classes.

The reason for this slight modification in Radio Camp structure brings up an important point. It seems that most people who decide they want to try to obtain an Amateur license decide they want to make friends, help the public or DX, but they associate all of these wonders only with working phone. It looks so easy — to go to a guy's shack and watch him pick up a mike and work Africa. Anyone can do it. I've had countless prospective students say, "Oh, I'll just get that Novice quick and then go on to the General." At first they figure they can learn the code in a week or so and then move right on up the ladder so they can get on phone as soon as possible. Then they start to study and discover, sometimes, that learning the code will take them a bit longer; like two or three months. For them, they either dig into the code and learn it well enough, passing their Novice at around 7 or 8 wpm, or they barely struggle by, just making it at 5. But what happens to folks after their ticket arrives?

I'm sorry to say that, for most of them, their Novice days seem to be rather short-lived. They make a handful of QSOs on the air and then upgrade and get on phone or make no Novice contacts at all. This happens even after the generosity of those who have provided equipment to HANDI-HAMS to be temporarily loaned to Novices. The reason for this is multiple and varies with the individual, but in general, I think it has to do with the way in which the ham community as a whole looks at the Novice license.

Too often, prospective amateurs are encouraged to get the Novice only so they have the requirements to upgrade to the next ticket. The license is looked upon only as a stepping stone to bigger and better things.

If a person has had a Novice for a couple of years and he meets a ham at a flea market or hamfest, this type of conversation might be typical: "What did you say your call was?" "It's KAØZZZ." "And how long have you been a ham?" "I've been one for about five years — got my Novice from the local club, had it about six months and then got the General. How about you?" "Well I've been a ham for about two years and have a Novice." "Oh, you still have a Novice. Are you trying to upgrade?" Or — "Oh, you must really like the code, huh?"

It is subtle, but it is as though Novices are kind of looked upon as weird people or very inactive amateurs who will probably drop out of the hobby altogether if they don't upgrade quickly. If a ham starts talking about some technical field in which he has expertise, other hams immediately assume he must at least have an Advanced or Extra because Novices aren't suppose to know that kind of stuff. Well, I for one have an Extra and know this is certainly not the case. I've learned more from my Novice students than from any of the FCC exams.

A person who is active as a Novice and uses his/her privileges with pride, often tends to feel more confident and comfortable with the upgrade. This has been shown repeatedly in the HANDI-HAM System. So by dividing our Novice candidates into a more structured class at the next Radio Camp, we hope to give them the feeling that the Novice is just as important a license as any other — even more so, as it is the first opportunity a person has to venture into the exciting world of hamdom.

I hope the time will come when more local radio club Novices who have graduated from the local classes will be able to report as one of our active Novices from New Jersey — "Well, I'm really enjoying myself and learning a lot. So far I've contacted 48 states and 23 countries."

Here are some pointers we all need to be reminded of from time to time when teaching Novices:

1) Emphasize that it is a great accomplishment to obtain the Novice.

2) Encourage students to take their time studying and enjoying their new license. Talk of upgrading should be kept to a minimum.

3) Strongly emphasize the code so when students pass their exams, they are copying enough over 5 wpm or feel comfortable enough with the code to enjoy being on the air.

4) Offer to make QSOs with folks who are a bit shy about being on the air or have folks pair up and make QSOs with each other during the class before they have their ticket (using code practice oscillators). Then when they do get on the air with that same person, it should be old hat.

5) Have a Novice teach or assist teaching the class so folks can talk to him/her about experiences on the air and the joy of having the ticket.

6) Assist with initial station set-up, and make sure the Novice has a station capable of putting out a good signal. □

How to help HH

Do you recall filling out your HANDI-HAM System application when you joined the System? Remember, you were asked questions about your interest, date of birth and if you'd like to upgrade? And remember that question, "Would you like to help a HANDI-HAM student?" Almost everyone answers "yes" to that question, but what can you do — especially if you're disabled and can't get to a student's location? Here are some ideas.

- Go to your local club and talk about the System.
- Keep in touch with us here at HANDI-HAM headquarters. We'd like to hear from all of you at least twice a year (if not more often).
- When you are in QSO, mention that you belong to the System. People will ask questions and you can do some valuable public relations work for HANDI-HAM services.

If you want to help, the best way is on the air. Talk up the System. Let people know that membership is open to people with or without disabilities. You might want to mention how you became involved with the System. You don't have to mention your disability if you'd rather not. Remember, Amatuer Radio is one of the best equalizers there is.

If you have our address handy while on the air, let people know how they can get in touch with us. Or suggest they check QST.

If you hear anyone in any of the following areas, you might want to mention that we are currently looking for help for students in: Tampa, Florida; Franklyn, Virginia; Columbus and Macon, Georgia; Halloc, Minnesota; Huberet, North Carolina; Sparks, Nevada; Lompoc, California; Waterville, Maine; Peakskill, New York; Crab Orchard, West Virginia; Horn Lake, Mississippi; Cedar Keys, Florida; Tuckahoe, New York; Bloomfield, Connecticut.

If you have been contacted by us but have found help on your own, let us know who is helping you so we can keep the records straight. Thanks.

— *HANDI-HAM World* □

Ohm-Brew answers

1) mobile ohm 2) ohm stretch 3) broken ohm 4) ohm away from ohm 5) ohm sick 6) ohm plate

Batchelors made it

Herminia and Gordon Batchelor of Shandaken, New York, are excited about their recent achievement. They both made Extra Class on 17 June 1983. Their calls are NB2H and NB2I, respectively. □

Kurt N. Sterba

My dear friends:

All of your letters were forwarded to me, and I must say that I am touched more than I can ever say. Hams are indeed wonderful people.

I was so disgusted by the erroneous information being published elsewhere, I no longer wanted to be a part of the printed press. You have convinced me, with your eloquent letters, that my decision was not a good one.

In the past few days, however, my work load has again become heavy. So what I will do is appear on a "special project" basis. I'll be sharing this space with a new column to be titled "The Antenna Doctor". More about that shortly.

What put me back "in the harness" was concern about commercial products now being sold. You may certainly buy what you wish, but I must warn you that some of the advertising material is in error. I'm talking about antenna tuner devices that are mounted at the antenna feedpoint.

I shall quote from the material. "Antenna Tuners . . . what they can do is transform the impedance and reactance that you have at the station end of the coax, to make it look like 50 ohms for the transmitter and receiver. This may be helpful to a degree, but it still does nothing to correct the mistuned and mismatched condition at the antenna!"

WRONG! WRONG! WRONG! One would think that after all these many years, people could finally get it right. Not so, apparently.

What makes it worse is that the charts which explain the true happenings are in the books. One does have to look at them, however.

If one is so inclined, he can look at the chart, see the type of cable he is using, take into consideration the length of the line, see what SWR he has, and see the resultant actual power loss.

Next, here is what the poor maligned tuner actually does. Whatever the reactance is coming down the line, the opposite reactance is sent back up. We have balanced it out. If you have a lot of negative coming down, positive is sent back up. That's it!

The actual difference — when using cable lengths as in the amateur service — between having the tuner in the station or at the antenna, is so slight as to be called meaningless. There is absolutely no point in doing anything in which the difference cannot be heard at the other end!

The above discussion is based on the assumption that your antenna is already somewhere close to reality. If you have 20:1 to start, I have nothing for you. Even in mobile work, look at this: The cable run is so short, no loss worth speaking about can develop.

I just don't want to see anyone going through a lot of extra expense and trouble when it is unnecessary. Keep your tuner where it is — down next to the transmitter.

Recently, in one of the hamags, I saw some sort of monster cage antenna that was designed to get a broad-banding effect on 80 meters. There was more wire in that than on the Brooklyn Bridge. Again, a case of overkill. There is no need for all those spreaders, weight, expense and captured birds. Just put up a dipole and run your tuner. That's all you need!

For doubting Thomases: Run a test. Have some other station listen for you at the top of the band and the bottom of the band. Have a chart made up with the tuner setting at the different frequencies. With the memory rigs, you could even preset the frequencies on the rig. Scoot back and forth. There will be your proof. Some will become very ashamed when they find out that what they've believed all these years is *WRONG*. As we used to say, "Sorry 'bout that!"

The proper way to conduct the test is *NOT*, as you see (or hear) so many doing, by talking — "Hello, One, Two, Three," etc. Big Joke. Go "key down. Let the "S" meter give you a good solid reading. Write it down.

Testing is scientific — just believing is not. Send in information on other tests you have conducted, and share your knowledge. Also, any questions you may have will receive an answer.

I was deeply moved by the number of letters and the sentiments expressed. I've got something interesting planned for you soon.

(Kurt N. Sterba goes by his cover name so that he will not be bugged by jealous types. To get him back, we had to pay him twice as much as QST pays contributors.)

Grenada's link

(continued from page 1)

Barettella, who returned to New Jersey on Thursday the 27th with other evacuated students, said he manned his ham radio until about 15 minutes before he and nearly 180 other students were evacuated by helicopter from the Grand Anse campus of the medical school.

Another student, Stefanie Jacobs of Millburn, New Jersey, said Barettella "saved all our lives. It (the ham radio) was the only source of contact with the outside world."

In a news release dated 28 October, the FCC expressed high praise for Mark and other radio amateurs, and the role they played during the crisis. The Commission waived some of its rules to facilitate communication by KA2ORK and other operators.

In the FCC's words, "At all times, the paramount interest of this agency was the safety and welfare of the medical students on the Grenada campuses. Mr. Barettella and the amateur operators assisting him provided valuable services in relaying information as to the safety of the medical students and their families and as to the general situation existing at the Grenada station."

— *Information from Associated Press and ARRL* □

MARITIME

(*continued from page 31*)

loss of a small loaded whip antenna is probably a lot greater than what we have here in this tuner on a long-wire antenna.

Super receive

One thing that did surprise us was the fact that the antenna appears to be resonant on any chosen receive frequency. On some marine electronic electromechanical tuners, you must first transmit in order to bring the tuner into resonance for both transmit as well as receive. For instance, if you were on 22 MHz marine and then switched to receive on 4 MHz marine, you would hear little on 4 MHz marine until you actually transmitted and caused the tuner to resonate itself on that lower frequency.

Not so with Maxcom — the unit appears passive on all receive frequencies. Looking at the specs, we see that receiver insertion loss is only .4dB from 10 MHz and up. However, at 7 MHz, receive insertion loss is 1dB. Way down on 160 meters, receive insertion loss is only 2.8dB — not bad for this low frequency range.

Summary

This little fellow is expensive, as you can imagine. At $600, you might wince once. However, if you compute the cost of a manual tuner at $200 and up, and all of the frustration it takes to get a manual tuner into its proper settings each time you change bands, you will see that this $600 device will soon earn its keep.

Since it was designed for the military, all of the inside circuitry is potted and sealed up — eliminating a visual look-see. I am told there are microprocessor chips and tuned circuits that automatically go on-line in less than one millisecond when RF is detected. We are assured that there is no 50-ohm resistor, just to fool our transceiver into thinking there is an antenna on the end of it!

The old lead pencil test certainly indicates that one can draw a nice spark off of the hot terminal, which is a good indication that more than 75 watts of RF is indeed going into the antenna line. We gave it our usual submarine test, vibration test and drop test, and it still continues to match anything and everything.

Although there are models up to 2000 watts, the best one for most maritime installations is the 200-watt model.

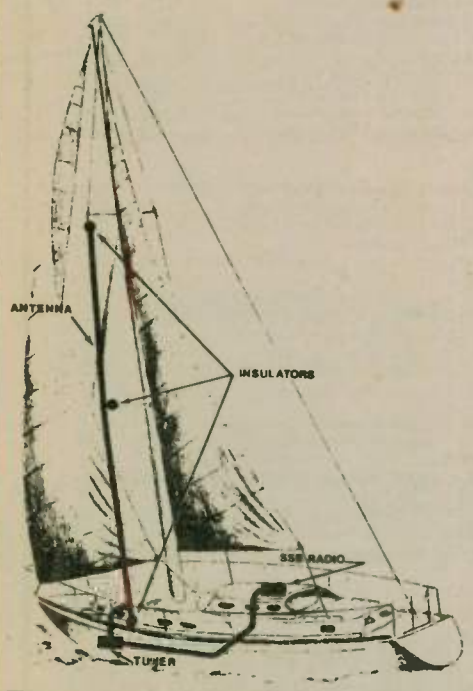


Figure 4 — *Insulated sidestay antenna, 23 feet or more*

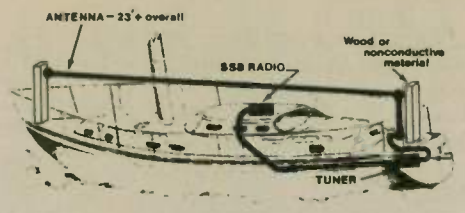


Figure 5 — *Emergency antenna; set up and disconnect old antenna*

We have tried it mobile, aeronautical mobile, bus mobile, and even loaded up a trash can at one of our classroom demonstrations, and the unit continues to work and constantly receives super signal reports. As in all tuners, it always works best with a terrific ground in marine installations where a single long-wire is chosen.

Yes, it is expensive — $600, but it's worth its weight in its simple operation. We already have four boats with the device on board, and the signal reports have all been excellent. You can write me for a complete technical sheet on the tuner, as well as a VSWR graph on frequencies between .5 MHz and 40 MHz. Write Gordon West, WB6NOA, 2414 College Drive, Costa Mesa, CA 92626.

It's hard to believe, but finally the ideal maritime solid-state high frequency automatic antenna tuner has arrived. It even carries a five-year guarantee. □

WANTED

Telecommunications Specialists — with experience as communicators, telecommunications specialists, radiomen, Morse intercept operators, or radio amateurs with general license or higher. Should know basic radio theory and algebra, be able to touch-type at 30 wpm, and have Morse code ability at 12 gpm. Must be U.S. citizen and high school graduate or GED. Salary range (U.S.) $15,398-$18,215 plus substantial overseas benefits.

Send resumes to: Office of Personnel, Department A, Room G-03 (OV), P.O. Box 1925, Washington, D.C. 20013. □

TEACHER

Alan Kline, KB1DJ
P.O. Box 54
West Lynn, MA 01905

Lately, I've not only had trouble getting instructors to teach my code and theory classes, but my personal responsibilities have changed, allowing me much less time to organize my annual educational offerings. I have asked for some member of our club to take over my programs, but I get no volunteers, so my attitude has changed to one of, "I will do only what one man can do."

When I started teaching Novice code and theory classes, I did them mostly myself. I was lucky to have a very self-motivated CW instructor with me, but I did most of the pre-class and theory teaching alone.

I advertised the class; sent out the newspaper releases; stuffed, licked and stamped envelopes; typed the mailing lists and arranged for rooms. It took too many man hours to get the class started. I eventually wrote my own lesson plans and set up the weekly class ideas that were to become a regular format.

I was only a Technician Class then — an avid 6-meter SSBer. My first CW contacts were still fresh in my mind. I was really excited about being a ham and I wanted to help the whole world become amateurs.

During the first 10-week session of the Novice class, I was flying high. My ego got boosted by the realization that I was in control of 30 potential Novice hams. Today, my motivation of that class has produced 10 Advanced Class and 15 General Class hams. Of the Novices that were left, most are still active on the air.

When I can't get enough teachers to teach my classes or get enough volunteers to do any of my programs, I don't give up, because if I/we give up, the hobby will die out. Whenever I feel that what I'm doing is a waste of time or think I should stop making those phone calls looking for volunteers, I just remember some of the accomplishments of my past students and instructors.

Here are some personalities I like to brag about:

KA1MI

When I met Dave Meldrum, KA1MI, he was working for the Honeywell Corporation. He had a passion for Amateur Radio I couldn't believe. Within a year, he had his Novice and swiftly upgraded to Advanced. Two years later he was traveling the club lecturer circuit, talking on the importance of slow speed traffic nets for Novices.

For most amateurs, this would be enough of an achievement. But Dave was also a prime force behind the Honeywell ARC. This is the club that started — and has continued — the TRN (Teleconference Radio Net). The net has tied the country's repeaters together for great talks by Roy Neal and Barry Goldwater.

KE1V

Don MacComisky was WA1APV when I first met him — a Tech Class ham with a good fist for CW (a skill I lacked). Don was my first CW instructor, the motivational force behind 25 new Novices. During that same class, Don upgraded to Extra. For the past two years, he has held the club's position of Official Greeter. He welcomes all hams and newcomers to our club meetings. He also makes CW practice tapes for many aspiring hams.

KA1DNG

Web Blood was in our first Novice class for only one reason — he was going to sail his 55 ft. sloop out of the Marblehead, Massachusetts harbor and go around the world. A dream cruise, if there ever was one. Amateur Radio was his backup communications system. Two years later and over 10,000 ocean miles behind him, Web has his General and is planning his next sail.

KA1FCC

Don Robson, KA1FCC, did not get his Novice ticket with the rest of his classmates, but he attended every class, took all the weekly quizzes and tried his hardest. At 62 years old, he was determined to get that Amateur Radio ticket he had always dreamed about.

As there were many in our first class, competition was tough and Don had the greatest obstacles to overcome. He was confined to a wheelchair, legally blind and had limited mobility caused by a stroke. Today, Don is still KA1FCC — a call many envy. As an Advanced Class amateur, he gets more than his share of rare DX.

All of these hams were in my first Novice Class, one I will never forget.

(please turn to page 38)

TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

Telephone numbers

Most amateur messages to third parties are delivered by telephone these days, so an important part of the address is the telephone number. It's so important, many amateurs will not deliver a message unless it has a telephone number. While I have comments on this attitude, I'll save them for another occasion; here I'll merely remind all that the attitude exists and must be allowed for. So get a telephone number, if at all possible.

Getting the number is simple: dial Directory Assistance in the area of the addressee. Dial 1, the addressee's area code (your local operator can give you that if you can't find it otherwise), then 555-1212. The operator will usually ask "What city?" Give the city, then the name of the party, and the street address if the operator asks for it. Post office boxes and rural route numbers are no help, and in some cases it's not possible for the operator to identify the addressee sufficiently to give you the number when you run into a name like Clark with 500 or 600 listed in the book. You may have to send the message along without the phone number, but at least you tried. And you just might have the good fortune to have it reach an amateur who prides himself or herself on delivering the impossible.

It's best to do this at the station of origin, because local telephone companies often charge for calls to Directory Assistance while it's free on the national network. But that is threatening to change now. AT&T is asking the FCC for authorization to charge 75 cents for calls to Directory Assistance. And with good reason. Now that AT&T has competitors — other firms also supplying long-distance service, it certainly has no intention of allowing people to use its directory assistance service free and then calling the number over someone else's lines.

There has never been any objection to our using the service, however, so we may as well continue to do so as long as it's free. Actually, the telephone company has probably more than recovered the cost of our use of the service, in a hidden way. While it gets nothing for giving the phone number that we put on a message to be handled by Amateur Radio, one contact leads to another, and soon one of the parties may decide to phone the other. The same may be said about phone patches: they result in a net gain for the telephone company in the long run.

Furthermore, we're doing it for nothing. We don't charge for our services, and we're not supposed to handle business communications, so the phone company doesn't mind giving us a little free assistance. When money is involved, however, that's another matter.

Our free service could be a lesson for the world. Wouldn't it be wonderful if everything were free like Amateur Radio's traffic service? If you wanted some groceries you could just go help yourself; if you wanted to go somewhere, you could just hop on a plane or train; if you wanted clothes, you could just pick out something you liked and that fitted you — all with no need to pay anybody for anything. But if you didn't need money, who would work?

I believe, even without the money incentive, we would be forced to work to prevent boredom. And with no money to worry about, 90 percent of the world's work would be eliminated — all that is expended in coining money, guarding it, counting it, managing it, all the military expenditures, all that is spent by governments in taxing it, appropriating it, borrowing it. It would be heaven on earth, but it won't happen. The Lord knows we might have such a good time here that we would lose interest in the hereafter. Maybe some day I'll write a book about it. But meanwhile, money talks, and pretty soon it may take money to talk to Directory Assistance, so we had better start assembling our directory of long-distance numbers now, and suggest to our friends who use our service to do the same.

Maritime mobile traffic

Radio is the only means of communication for many who are at sea, and for many of them that means Amateur Radio. We supply a bond to keep separated members of a family in touch with one another, and a ready help in case of any emergency. A maritime mobile ("Mickey Mouse") station wishing a contact can find one almost any time of day or night on either 14,313 or 21,405 kHz, and usually on several other frequencies as well. It is to be regretted, however, that more do not make use of the formal traffic when the message is not urgent, but many nets serving maritime mobiles never handle formal traffic.

There is an alternative in many cases, because maritime mobiles can often contact traffic nets or call TCC stations after completing a schedule, and will find ready acceptance for formal traffic, and usually expeditious handling too.

The June and September issues of **Worldradio** carried, respectively, an article and a letter about illegal activities by maritime mobile stations operating in the amateur bands. I hope nobody was discouraged from taking part in maritime mobile nets by the discussion, as the nets need all the help they can get.

It seems that the principal cause of misunderstanding in the matter comes from the fact that the rules have been changed recently, with some being unaware that the old rules are changed, others not realizing that there were old rules before the present ones were adopted.

But first, one statement that was made does not concern the amateur rules at all, but rather the Communications Act of 1934. Section 301 of the Act says, "No person shall use or operate any apparatus for the transmission of energy or communications or signals by radio ... (e) upon any vessel or aircraft of the United States ... except under and in accordance with this Act and with a license in that behalf granted under the provisions of this Act." Hence, a U.S. license is required for any radio transmitter operated aboard any U.S. vessel.

The FCC has granted a general license for CB stations; others require individual licensing by the Commission. A Canadian license will do, but amateurs licensed by any other country also need a reciprocal operating permit from the FCC before operating on a U.S. boat. And reciprocal operating permits are not issued to U.S. citizens: you can't get a license in Lower Slobbovia by greasing the palm of an official there and then expect the FCC to let you operate in the United States or aboard an American vessel.

It is true that palm greasing is the route to a license in some nations; I know this to be a fact. It's a way of life there, so much so that not too long ago, U.S. business people objected to U.S. laws forbidding their representatives to bribe foreign officials: business people of other nations could and did, and this put our companies at a competitive disadvantage. Bribery is probably not as widespread as some assert, but it does exist.

That is really not our concern. How one got a license is that person's government's business, not ours. So, a U.S. or Canadian license or an FCC alien operator's permit is required for operating aboard a U.S vessel. For other countries' vessels, you have to see the laws of those countries. As long as you have the skipper's consent, you fulfill FCC requirements.

The FCC rules allow us to communicate with other amateur stations, and the rules define an amateur station as a *licensed* station. Thus, it's illegal to work unlicensed stations, but we are entitled to assume that a station is licensed until the contrary is evident. While efforts by individual amateurs and groups to help the FCC in policing the airwaves are to be encouraged, they are not obligatory on all amateurs.

How serious is it for a maritime mobile to give a false position report, to claim to be in Region 2 when actually in Region 3, to claim to be on the high seas while actually in the territorial waters of some nation? Not very serious; in fact, it's probably no violation of any rule. Formerly, maritime mobiles were required to identify themselves as such when on the high seas, indicating which ITU region they were in, and to give their actual location once during each contact. The log was also to contain an entry giving the location, and the licensee was to notify the FCC Engineer-in-Charge where the station would be operating mobile.

All these rules have been dropped, so it's no longer a serious violation of a rule to give a false position report. But signing a false call remains serious. So is operating where you aren't supposed to.

The writer of the article in June also said that drug runners make use of Amateur Radio. That is true. I'd suspect, however, that what they gain in avoiding capture others lose because, as the CB folks say, "Smokey has ears." So does the Coast Guard — ears often to be found between the headphones at an amateur station.

Christmas rush

December is the big month for traffic. In addition to the many messages sent by individual amateurs, clubs and other groups set up exhibit stations in shopping malls and such places and originate volumes of traffic. The December rush would appear to be a more effective drill and test for our nets than the Simulated Emergency Test (SET). It's unplanned, like a real emergency. Traffic is from anywhere to anywhere in any amount. And it is valuable from both the public service and public relations standpoint. So what if it's free? It's personal, relayed from one human operator to another, and delivered personally as a complete surprise, with the recipient exclaiming, "I've never heard of anything like this!" It's something different from the standard mass-produced greeting card.

Its public relations value is there only if messages are delivered efficiently, accurately and promptly. When you have 15 or 20 messages, bear in mind that the system is already close to capacity and take precautions not to overload it.

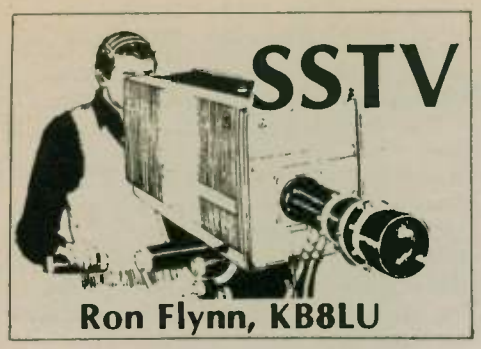
You can use alternate routings to bypass regular NTS routes if congested. Net control stations can split up traffic going out of the net, sending one station — for example — to the region net with only traffic for the area net, and sending another with the other traffic to be distributed by the region net. The region net control might send a station with a big load for the area net directly to the area net as an additional representative.

Net managers should give a thought to activating the normally unused cycles of region and area nets to take care of traffic overloads. Even if there is less than full representation, some traffic will be cleared, reducing the load on the subsequent session.

December is the month when any amateur who wishes and has the time, can earn a BPL (Brass Founders' League) card. Every net, particularly at region and area level, can use more help these days. And don't let the "brass pounder" discourage you. While more traffic is still handled by CW than by voice, there is plenty of it that goes by the phone nets too, enough to make any zealous trafficker hoarse.

And if you want to try the CW route, don't hesitate. The need is usually greater there, and the gang will bend over backwards to accommodate you. While the regulars will breeze along at 25-30 wpm to clear their huge piles, they will be happy to slow down to help inexperienced or rusty amateurs. After all, it does no good to send it to you at 30 wpm if you find it hard to copy 15, and it's equally useless to send it at 30 to an operator who can copy 30 but is in no position to deliver the message. If you try it, you may be pleasantly surprised in a few weeks when you find yourself making solid copy at speeds you formerly could hardly read.

While passing along these suggestions for handling other people's holiday traffic, your columnist wishes all a season filled with happiness too, especially the happiness that comes from making others happy. And that's the name of the traffic game. □



It has been about a year since I have devoted an entire column to the thoughts and comments I have received from you, the readers of this column. In recent months, I have answered and commented on a few matters that come up in correspondence and on the air.

Some dramatic changes have occurred in SSTV over the past couple years, and more are to come. Many of you have made up your mind, but I'm sure the vast majority of you are still comparing the specs, features and costs, and trying to decide on that one big burning question, "which way to go" in SSTV. I don't think a day goes by without hearing a discussion on the air concerning "which way to go."

Some complain that there is too much talk on the air and not enough video. Perhaps. However, on-the-air discussions are the primary place for someone to get first-hand information on SSTV equipment from users of that equipment, and to get answers to specific questions.

Although it is quite easy and the temptation is great, I feel it is very important that the few people who sell SSTV equipment or have commercial interests in SSTV equipment companies refrain from "pushing" or "selling" their products on the air. This situation has improved greatly in recent months. However, occasionally someone gets on and runs through the features of his product as if in a sales showroom, or does on-the-air services for his products.

I know it is tough. The distinction at times is a fine line. Those involved with SSTV equipment companies certainly have the right to get on the air and have some fun operating SSTV. To this observer, however, it is quite apparent when they are operating for fun and when they are "selling."

Many of you have asked me that question, "which way to go?" I have not answered it, nor will I. That is one question you will have to answer for yourself. I have no commercial interest in any company involved with SSTV equipment. I have reported the pros and cons of various SSTV systems in this column and will continue to do so. Those of you who have worked me on the air or written me, know what equipment I use and my feelings about it and other systems. I'll continue to answer specific questions and provide you with information that will help you make up your mind.

SSTV nets

I have received inquiries and complaints about the various SSTV nets, mostly due to wondering what has happened to them and why they can't be better.

The SSTV nets on 20 meters all seem to have problems in common. Band conditions have not been very good, and SSTV activity is normally down during the summer months. The various systems, modes and formats of SSTV video being sent these days makes it nearly impossible for anyone to copy all video being sent. These factors all contribute to the downturn in SSTV net activity.

I believe that the major factor contributing to the decline of the SSTV nets is the fact that some net control stations, who used to be very active SSTVers, are no longer active or regularly participate.

Brooks Kendall, W1JKF, the net manager and one of the net control stations for the Saturday afternoon SSTV net (Saturdays at 1800Z on 14.230), has done a super job for many years. Don Miller, W9NTP, is another net control station for that net. Don is on the net every other week or so for a half-hour, but with no regularity except for the few months prior to the Dayton Hamvention. Outside of that occasional half-hour on Saturday afternoon, Don is not active on SSTV.

Sam Mormino, WA7WOD, is the other net control station for the Saturday afternoon net. Sam has become very busy with commercial business ventures and has not been able to help with the nets for some time, and has found little time recently to get on the air and operate.

The alternate net control stations for the Saturday afternoon net are likewise very busy men. George Steber, WB9LVI, is quite active on SSTV and helps out with the net when he can. Robert Suding, W0LMD, is rarely heard on SSTV or the net anymore.

The Thurday night SSTV technical net (Thursdays at 2300Z on 14.230) has similar problems. Tom Murray, N7AON, does a fine job as net manager and net control station. Tom had commitments this past summer and made arrangements with Butch Rulfs, WB5UZS, to take over the net. No one knows what happened to Butch, but for most of the summer there was no Thursday night net. Sam WA7WOD is the other net control station for this net. The reasons for Sam's absence were explained above.

It is true that the Thursday net is not much of a technical net anymore. It could be and should be, though. Here is a net you can go to and get help and information about SSTV-related matters. Tom N7AON is certainly willing to take time to answer your questions or find someone to help you.

The IVCA SSTV net (Saturdays at 1500Z on 14.230) has improved considerably since it began and since my report on it a couple months ago. Lou Tepfer, W6FVV, and Bill Wells, W4CVS, took over the net in August and now help Jack Gray, W1REQ, the net manager.

What the three SSTV nets need are more active and dedicated SSTVers to help as net control stations. At one time or another, I have heard all three of the above-mentioned net managers ask for help. They have often asked several people to assist in running the nets. For various reasons, SSTVers who were active a few years ago are no longer active and can no longer be counted on to help.

If you have the time and are fairly active and wish to help out with any of the nets above, write the net managers or check into these nets and let it be known you want to help.

As far as any specific formats or activities on any of the above nets, it is pretty much at the discretion of the individual net control stations as to what happens during the net. If you have an idea on a different net format or approach, become a net control station and try it out. Any complaints or suggestions on net operation should be brought to the attention of the net managers.

Several people have informed me they are thinking of starting up new SSTV nets on other frequencies. If they do start up, I will report on them in this column. Several regional SSTV nets on 40 and 75 meters are operating and have been reported here in Worldradio and in the magazine, SSTV Today, for which I do some writing, also.

Next month, I will discuss more about what is happening on the air, plus the SSTV frequencies and what to do with them. 73's □

Teacher

(*continued from page 36*)

They were so charged with energy and unlimited potential. They are all active amateurs, of whom any volunteer teacher would be proud. You will never know what potential your students might have until *you* teach a class.

HELP!

I've been writing this column for 10 months now and would like to know if my readers enjoy it or not. Would you like me to write about how I solved particular problems, or would you rather have me write about my thoughts in general? Please let me know. □

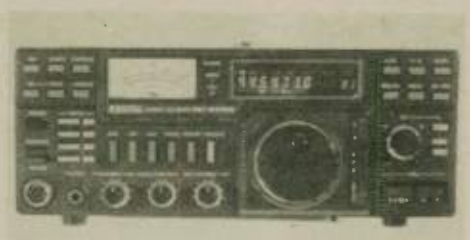
advanced receiver design that provides true competition-grade performance. Suggested retail price is $1,600 with power supply.

For more information, contact ICOM, 2112-116th Ave. NE, Bellevue, WA 98004; (206) 454-8155. □

Base station transceiver

The IC-471A is a 20 MHz coverage base station transceiver for 430-450 MHz. It features 10 watt output, 32 full-function memories, and built-in sub-audible tone selectable from the main tuning dial.

ICOM systems accessories work with the IC-471A. Also, this unit features ICOM's new two-color display, showing frequency digits in white and control functions in red, for easy visibility in all lighting conditions. With the IC-471A, it is possible to scan all frequencies,



memories or modes. Pricing will be announced shortly.

440 MHz repeater

This ICOM RP3010 repeater is designed for use by hams in the 440 MHz band. It offers 10 watts of output power, CTSCC capability, IDER and DTMF control. The 440 MHz repeater is of very high quality and rugged construction, and is designed to work over a wide temperature range. The ICOM 440 MHz repeater is crystal-controlled. Pricing and availability to be announced.

For more information, contact ICOM, 2112-116th Ave. NE, Bellevue, WA 98004. □

Full-feature HF transceiver

ICOM proudly announces its new IC-745, a full feature HF transceiver and general coverage receiver. Operational modes are SSB, CW, RTTY, AM (receive only) and FM (option).

The IC-745 offers the user the capability of a general coverage receiver, between 100 kHz and 30 MHz, and all of the HF ham bands from 1.8 to 30.0 MHz, including the new WARC bands at 10 MHz, 18 MHz and 24 MHz. Ham band selection can be activated by simply touching the Band button and rotating the main tuning knob. Other innovative standard features found in the IC-745 include 16 tunable memory channels; passband tuning; continuously adjustable AGC; 100 percent duty cycle rated transmitter; and 12 volt DC operation.

A multi-purpose scanner allows the user to search the 16-memory channel frequencies or scan between two programmed frequencies. The 16 tunable memory channels have the capacity to memorize not only the desired frequency, but also the desired mode of operation. The frequency that is called up from memory can be changed by simply adjusting the frequency dial. Installation of the optional IC-PS35 internal power supply makes the IC-745 self-contained.

The suggested retail price for the IC-745 is $999; dealer single unit price, $799; and dealer case price, $779.

For more information, contact ICOM, 2112-116th Ave. NE, Bellevue, WA 98004; (206) 454-8155. □

HF transceiver

ICOM announces the most advanced, highest performing HF transceiver with general coverage receiver for the amateur world today, the IC-751. The IC-751 features a new generation of technology and computer control. ICOM'S new CPU, with internal battery memory backup, provides many advanced features, such as 32 memories with memory storage of mode and frequency, and the scanning capability to cover large segments of the spectrum very slowly, or to scan the memories by selected mode.

The IC-751 provides instantaneous, silent, band selection and has a unique three-speed tuning system. Other features included in the IC-751 are full break-in keying, passband tuning, notch filter, RIT and XIT with separate readout, FM built-in as standard, a very steep-sided FL44 sideband filter, continuously adjustable noise blanker levels, dual VHO operation, and all-mode squelch. An easy-to-read two color fluorescent read-out showing the frequency in white and control functions in red, for low eye fatigue and high visibility in all ambient light conditions is standard.

The IC-751 is equipped standard for operation from 12 volts DC, and there is an optional internal AC power supply. The IC-751 has an

Computer interface for RTTY/ASCII/CW

Palomar Engineers has announced its new computer interface Model CI-103. It connects between your rig and home computer, and lets you send and receive RTTY, ASCII and CW using a VIC-20, Apple, TRS-80C, Atari, TI-99 or Commodore 64 computer.

The CI-102 copies on both mark and space with a dual diversity combiner that gives much improved reception in the presence of noise and fades. It receives both amateur and commercial shifts and features both pre- and post-limiter filtering, keying for either plus or minus polarity, regulated voltages for stability and a three-lamp indicator system for easy tuning. Operation is from 12-24 volts DC or from 115 volt AC with optional adapter.

The Model CI-103 retails for $139.95. For further information, contact Palomar Engineers, 1924-F West Mission Rd., Escondido, CA 92025; phone (619) 747-3343. □

FM dual-band radio

Trio-Kenwood announced the addition of the model TW-4000A, a compact new combination 2-meter and 70cm FM radio, to its line of Amateur Radios.

Among the new features that provide enhanced flexibility and ease of operation of the TW-4000A is a large, easy-to-read LCD display; 10 channels of memory with off-set recall; lithium battery memory back-up; dual digital VFOs; priority watch; common channel; programmable memory scan; band scan; and a full 25 watts of RF output on each band.

An interesting optional accessory available for use with the TW-4000A is the VS-1 voice synthesizer unit that announces the operating frequency, VFO "A" or "B", repeater offset, and the memory channel number when the unit is turned "ON", when another frequency is selected or when a memory is recalled. The VS-1 is designed to be easily installed inside the TW-4000A.

Additional information on these new products may be obtained by contacting Trio-Kenwood Communications, 1111 West Walnut St., Compton, CA 90220. □

RTTY II

RTTY II is now available for the Commodore 64 and VIC-20 computers. Turn your computer into a radioteletype video display terminal. Features include split-screen operation (compose your reply while receiving), four 255-character user-definable messages (may be saved on cassette or disk), and four pre-set messages, including RTTY CQ, RY test, time transmission and CW ID. Select 60, 66, 75 and 100 wpm Baudot speeds. With Morse code call sign ID, RTTY ID (both his call and yours), auto UNSHIFT on space — 16 different functions and controls in all!

Manual includes instructions on how to modify software for your call sign and messages. Hardware manual included with various interface designs for RS-232, TTL and current loop terminal unit interfaces, as well as info on homebrew and commercial RTTY terminal units.

RTTY II requires VIC-20 with 8K memory expansion or Commodore-64, datacassette deck and RTTY terminal unit, such as the HRA Electronics TU-][or MFJ RTTY TU. (The TU-][is a complete, ready-to-use terminal unit for MORSE II and RTTY II. It is available in kit or assembled form. Write RAK Electronics for prices and availability.)

Package includes software and hardware manuals and I/O edge connector — $19.95 cassette, $22.95 disk, plus $2 shipping. *Specify type of computer.*

Write for complete catalog of VIC and C-64 software. RAK Electronics, P.O. Box 1585, Orange Park, FL 32067-1585. □

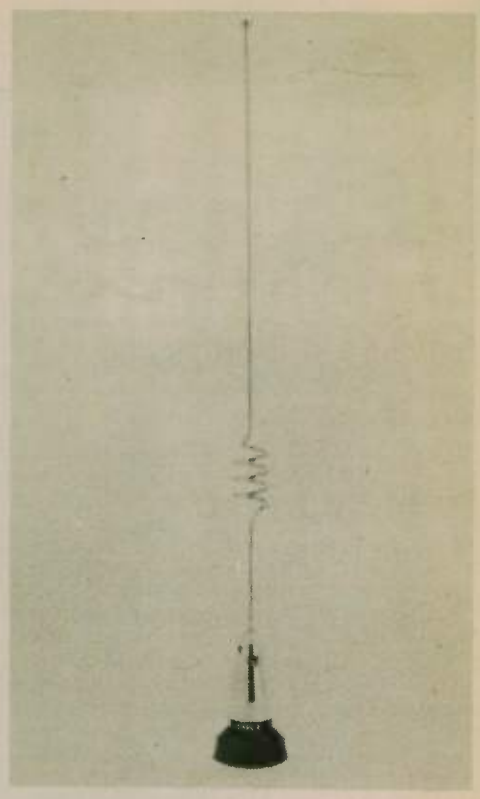
VHF amplifier

Ham Industries, Inc. is pleased to announce that they have gone "HAM". After nine years of manufacturing electronic inspection systems and equipment, they have expanded their product base to include several newly developed products designed for the radio amateur.

The first product, just released to marketing, is an extremely compact 25 watt amplifier for the 2-meter band. This PA-25 unit weighs only 8 ounces, but packs quite a punch. It is designed to be attached directly to a hand-held or mounted to a car dashboard, with the accessory mounts included.

The PA-25 will boost the output power from a hand-held transceiver up to six-fold. An adapter cord allows plugging directly into a cigarette lighter. A separate power supply can also be used.

The PA-25 can be ordered directly from Ham Industries, Inc. for $94.50 each. Checks, Visa or MasterCard orders are accepted. Delivery: stock to four weeks. Order from Ham Industries, Inc., 835 E. Highland Rd., Macedonia, OH 44056; phone (216) 467-4256; TWX 810-427-9217. □



Vehicular antenna

The Antenna Specialists Co. has been awarded a major competitive contract by OKI Advanced Communications, to supply all vehicular antennas for OKI mobile radios for AMPS and independent cellular systems throughout the United States.

"We are very pleased by the confidence placed in our company by OKI Advanced Communications," said Robert G. Paul, president of The Antenna Specialists Co. "This contract further enhances our reputation and position as the leading supplier of vehicular and cell-site antennas for the cellular industry."

The antennas supplied by A/S to OKI cover 821 to 896 MHz with a maximum power rating of 100 watts. One model, available commercially as ASPD1850, is a collinear vehicular rooftop antenna. Its 5/8 over a quarter-wavelength design produces 3dB gain. The antenna provides a 50 ohm feed without the need for a matching transformer. VSWR is less than 1.9 to 1 for 80 MHz bandwidth. The rear deck antenna, an elevated feedpoint collinear, is available commercially as ASPD911. It has 3dB gain, and VSWR is less than 1.9 to 1 for 75 MHz bandwidth.

For additional information, write to: Marketing Department, The Antenna Specialists Co., 12435 Euclid Ave., Cleveland, OH 44106. □

(*please turn to page 42*)

CONTESTS

Telephone Pioneer QSO Party

The John D. Burlie Chapter again cordially invites all Telephone Pioneer Amateur Radio operators in the United States and Canada to participate in contacting as many individual members as possible and to reach members in as many different chapters as possible. ITPA members are also invited to participate.

Rules

The QSO Party will start at 1900 hours UTC, Saturday, 03 December, and end at 0500 hours UTC on Monday, 05 December.

Fifteen bands will be used during the QSO party. They are: (MHz) *1.8: 1.800-2.000; 3.5: 3.500-3.775; 3.9: 3.755-4.000; 7.0: 7.000-7.150; 7.2: 7.150-7.300; 14.0: 14.00-14.20; 14.3: 14.20-14.35; 21.0: 21.00-21.25; 21.3: 21.25-21.45; 28.0: 28.00-28.50; 29: 28.5-29.7; 50: 50.0-54.0; 144: 144-148; 220: 220-225; UHF: above 420. *(An ARRL 160-meter contest runs at the same time as our QSO party.)

Any station representing a different chapter from the contestant may be contacted on any or all of the 15 bands for a maximum of 15 pts. per station, with no more than one pt. per band. Any station in the *same* chapter as the contestant may be contacted *once* for a maximum of 1 pt. per station; this contact may be on any band.

Phone user: Call "CQ Telephone Pioneers". *CW and RTTY user:* Call "CQTP". Please spread out over the frequencies indicated below.

Suggested phone frequencies: (MHz) 3.895-3.935, 7.255-7.295, 14.265-14.305, 21.355-21.395, 28.685-28.725, 50.10-54.00, 144.100-148.00. Contacts via repeater or simplex are valid.

Suggested CW frequencies: (MHz) 3.555-3.595, 7.055-7.095, 14.055-14.095, 21.055-21.095, 28.055-28.095, 50.00-54.00. *Novice/Tech.* 3.725, 7.125, 21.125, 28.125. *RTTY:* use customary frequency.

Scoring: Total score equals contact points times chapters contacted. NOTE: Only one multiplier may be taken for each chapter worked. The maximum multiplier is 98 (TPA chapters 1-98) plus no more than five ITPA chapters.

Exchange: Contact number and chapter number. (ITPA club or chapter name)

Reporting: Obtain log sheets from your Amateur Radio Club Coordinator or Pioneer Administrator. Send logs showing date, time station worked, chapter name and number, contact number, and your claimed score postmarked not later than 15 January 1984 to: Ted Phelps, W8TP, John D. Burlie Chapter No. 89, Telephone Pioneers of America, c/o Western Electric, Dept. 45430, 6200 East Broad St., Columbus, OH 43213. □

40-Meter World SSB Championship Contest

73 Magazine announces its sponsorship of the 3rd Annual 40-Meter World SSB Championship Contest. The contest will last from 0000Z to 2400Z on Saturday, 07 January 1984.

Rules: Work as many stations as possible on 40-Meter Phone during the specified times of allowable operation. The same station may be worked *once*. Crossmode contacts will not count. Single operator stations may operate a total of 16 hours. All the multi-operator stations may operate the entire 24-hour period. Off periods must be noted in your log(s) and on your summary sheet. Off periods are *no less than 30 minutes each.*

Operator classes: (A) Single Operator, Single Transmitter, *Phone* only. (B) Multi-Operator, Single Transmitter, *Phone* only.

Exchange: Stations within the continental 48 U.S. states and Canada transmit a RS report and state, province or territory. All other stations, including Alaska and Hawaii, transmit RS report and DX country.

Points: 5 QSO pts. for contacts with W/VE stations located within the Continental 48 U.S. states and Canada. All other contacts score 10 pts. each. List points for each contact on your logsheet.

Multipliers: *1 multiplier point* is earned for each U.S. state (48 maximum; a District of Columbia contact may be substituted for Maryland multiplier), each Canadian province or territory (13 maximum), and DX country (excluding the continental United States and Canada).

Final scores: Total QSO points × total multiplier points = claimed score.

Contest entries: Each entry must include a contest log, a dupesheet, a contest summary and multiplier checklist. We recommend that contestants send for a copy of the contest forms. Enclose an SASE to the contest address listed below.

Contest deadline: Each entry *must* be *postmarked* no later than 12 February 1984.

Disqualifications: Omission of any required entry form, operating in excess of legal power, manipulating of contest scores or times to achieve a score advantage, or failure to omit duplicate contacts which would reduce the overall score more than 2 percent are all grounds for immediate disqualification. Decisions of the contest committee are final.

Awards: Contest awards will be issued in each operator class in each of the Continental 48 U.S. states, Canadian provinces and territories, and each DX country represented. A minimum of 100 QSOs must be worked to be eligible for contest awards.

To obtain entry forms, or to submit an entry, forward an SASE to: 40-Meter Contest, Dennis Younker, NE61, 43261 Sixth St. E., Lancaster, CA 93535. □

75-Meter World SSB Championship Contest

The 3rd Annual World SSB Championship Contest will be held Sunday, 08 January 1984, 0000Z to 2400Z. **73 Magazine** of Peterborough, New Hampshire will be sponsoring the event.

Rules: Work as many stations as possible on 75-Meter Phone during the specified times of

allowable operation. The same station may be worked *once*. Crossmode contacts will not count. Single operator stations may operate a total of 16 hours. All the multi-operator stations may operate the entire 24-hour period. Off periods must be noted in your logs and on your summary sheet. Off periods are *no less than 30 minutes each*.

Operator classes: (A) Single Operator, Single Transmitter, *Phone* only. (B) Multi-Operator, Single Transmitter, *Phone* only.

Exchange: Stations within the continental 48 U.S. states, and Canada transmit an RS report and state, province or territory. All other stations, including Alaska and Hawaii, transmit RS report and DX country.

Points: 5 QSO pts. for contacts with W/VE stations located within the continental 48 U.S states and Canada. All other contacts are 10 pts. each. List points for each contact on your logsheets.

Multipliers: *1 multiplier point* is earned for each U.S. state (48 maximum; a District of Columbia contact may be substituted for Maryland multiplier), each Canadian province or territory (13 maximum), and DX country (excluding the continental United States and Canada).

Final scores: Total QSO points × total multiplier points = claimed score.

Contest entries: Each entry must include a contest log, a dupesheet, a contest summary and multiplier checklist. We recommend contestants send for a copy of the contest forms. Enclose an SASE to the contest address listed below.

Entry deadline: All entries must be *postmarked* no later than 12 February 1984.

Disqualifications: Omission of any required entry form, operating in excess of legal power, manipulating of contest scores or times to achieve a score advantage, or failure to omit duplicate contacts which would reduce the overall score more than 2 percent are all grounds for immediate disqualification. Decisions of the contest committee are final.

Awards: Contest awards will be issued in each operator class in each of the Continental 48 U.S. states, Canadian provinces and territories, and each DX country represented. A minimum of 100 QSOs must be worked to be eligible for contest awards.

To obtain entry forms, or to submit an entry, forward an SASE to: 75-Meter Contest, Jose A. Castillo, N4BAA, 1832 Highland Dr., Amelia Island, FL 32034. □

New Products

(*continued from page 40*)

Hand keys and keyer paddles

Guild, one of the most respected names in musical instruments and related electronics, recently became the sole distributor for the Hi-Mound line of iambic keyer paddles and hand keys.

Hi-Mound paddles feature silvered contacts with full spacing and tension adjustments on all models. Three of the iambic paddles have heavy, slip-resistant bases (one of solid marble), while the fourth is a paddle assembly which can be mounted on the base of your choice or built in to an existing keyer. The hand keys, in addition to retaining the classic look, also have silvered contacts and a unique tension-adjusting system.

A clear plastic dust cover is included with each key, and all are protected by Hi-Mound's one-year warranty, backed by Guild.

For more information, contact Guild at 225 West Grand St., Elizabeth, NJ 07202. □

V-UHF transceiver

Trio-Kenwood has just announced a new model, the TS-780 All-Mode "Dual-Bander," a combination 2M/70cm (144-148 MHz/430-440 MHz) radio designed to answer the needs of the Amateur Radio enthusiast who is active on both bands.

Important features included in the TS-780 are USB, LSB, CW and FM operation; dual digital VFOs; cross-frequency operating capability; 10 memories that store frequency and band data; internal battery memory back-up; band scan; memory scan; IF shift; fluorescent tube digital display; 2M offset switch; and 10 watts of RF output. VOX and CW semi-break-in are built in. An optional TU-4C two-frequency tone encoder unit is available.

Additional information on this new radio may be obtained by contacting Trio-Kenwood Communications, 1111 West Walnut St., Compton, CA 90220. □

Michigan

The HAZEL PARK ARC will be holding its 18th Annual Swap & Shop on Sunday, 04 December, from 8:00 a.m. to 2:00 p.m., at Hazel Park High School in Hazel Park, Michigan.

Featured at this ARRL-approved hamfest will be indoor facilities, door prizes, hot food and plenty of free parking. Advance tickets $1.50, $2 at door. Tables are $1 per foot.

Talk-in on 52 simplex; call sign W8JXU.

For tickets, table reservations and more info, contact HPARC, P.O. Box 368, Hazel Park, MI 48030; phone (313) 544-2965. □

Minnesota

The annual HANDI-HAM Winter Hamfest will be held Saturday, 03 December, at the Eagles Club in Faribault, Minnesota. Registration at 9:00 a.m. HANDI-HAM equipment auction. Dinner at noon. Program and prize drawing.

Talk-in on 19/79.

For more information, contact Don Franz, 1114 Frank Ave., Albert Lea, MN 56007. □

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WORLDRADIO ON CASSETTES — Worldradio for blind amateurs on cassettes. To receive this free service send $3.00 check, payable to George Hickin (for one time only contribution for tapes) with your name, address and call to George Hickin, W4GH, Box 7497, Macon, GA 31209.

DISTINCTIVE QSLS — Largest selection, lowest prices, top quality photo and completely customized cards. Make your QSLs truly unique at the same cost as a standard card, and get a better return rate! Free samples, catalogue. Stamps appreciated. Stu, K2RPZ, Box 412, Rocky Point, NY 11778. (516) 744-6260.

RTTY JOURNAL — Now in our 30th year. New Beginners Handbook — $8.00 PPD USA, foreign add postage. Year's subscription to the RTTY JOURNAL, $7.00, foreign $13.50. Send to: RTTY JOURNAL, POB RY, Cardiff, CA 92007.

WYOMING AND UTAH RANCH LAND. Wild horses, antelope, deer. Near paved road. 10 acres — $60 down, $60/month. FREE information, maps, photographs. (Offer void in Calif.) Will trade equity for ham gear, home computer, test equipment, etc. Owner — Dr. Michael Gauthier, K6ICS, 9550 W. Gallatin Road, Downey, CA 90240.

The SOCIETY OF WIRELESS PIONEERS, Inc., invites all professional operators, active or retired, military or commercial, to join the world's largest organization of its kind. Many active nets. Write Box 530, Santa Rosa, CA 95402 for details or send $1 to pay postage on sample SPARKS JOURNAL.

EDITING A CLUB PAPER? Need one for your club? Interested in Amateur Radio public relations? Need some help? Amateur Radio News Service would like to hear from you. For info write Fran Norrick, WB9WPS, Route 6, Box 239, Kankakee, IL 60901.

POOR MAN'S VOICE PROCESSOR/ACCENTUATER for "MC-50/60" microphone — $9.95. KD7X, 405 Whittier, Silverton, OR 97381.

WOW! NEW MFJ 1224 CW/RTTY/ASCII terminal units at $90. Full featured. Works with popular software packages for VIC, C64, Atari, PET, Apple, TRS-80C TI99/4A. Free shipping, VISA/MC, check, C.O.D. AMATEUR ACCESSORIES, 6 Harvest Ct, RD 7, Flemington NJ 08822, (201) 782-1551 after 6 p.m. Eastern.

COMPUTER OWNERS! Now featuring large selection of cassette and disc software for VIC-20, Commodore 64, Atari, Pet, Timex/Sinclair. Home, games, Amateur Radio, top quality, hundreds sold nationally. SASE for details. AMATEUR ACCESSORIES, 6 Harvest Ct. RD 7, Dept. WR, Flemington, NJ 08822, (201) 782-1551, Best after 6 p.m Eastern time.

TI-99/4A 5BDXCC & 5BWAS LOG-TI basic 2/$17.00 or $9.75 each. DXCC log $8.50 All on cassette. Leon, 2525 Avenido del Pinar. Gautier, MS 39553.

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