Worldradio

Year 13, Issue 12 June 1984 • 85¢

Hugh Cassidy, WA6AUD, and Martti Laine, OH2BH. Cass is DX Editor for *CQ Magazine. (Photos by Dick Fleming, WA6POC)*

1984 International DX Convention

John Minke, N6JM

DX'ers from all over spent the weekend of 14-15 April at the Holiday Inn in Visalia, California. Each year, more and more DX'ers begin arriving early Friday afternoon for informal gatherings that run into the formal DX activities. This year's convention was hosted by the Southern California DX Club, with Frank Cuevas, W6AOA, as Chairman.

This was truly an international affair, where DX'ers from afar included Chito Kintanar, DU1CK (of the recent 1S1CK DXpedition to Spratly Islands); Gopal VU2GDG (of VU7WCY DXpedition to the Laccadive Islands); Nana Ihara, JI1VLV (also 5Z4NN); Julius Lieberman, ZS6AF; Kan Mizoguchi, JA1BK; Yasuo Miyazawa, JH1AJT; Ted Tanaka, JH1JGX; Mario Gallavotti, I0MGM (of 1A0KM fame); Martti Laine, OH2BH; Katashi Nose, KH6IJ; Kurt Bindschedler, HB9MX; Albert Mueller, HB9BGN; plus a horde of our Canadian neighbors from the Vancouver area, who really enjoyed the California sunshine that weekend.

The convention was also popular with DX editors. Along with **Worldradio's** DX Editor (N6JM), we had Hugh Cassidy, WA6AUD, of CQ; Chod Harris, VP2ML, of 73, Harvey McCoy, W2IYX, of *The Long Island DX Bulletin;* Bob Winn, W5KNE, of *QRZ DX;* Jay and Jan O'Brien, W6GO and K6HHD, of the *W6GO/K6HHD List*, and Albert Mueller, HB9BGN, of a European DX publication.

The Friday evening Cocktail Party was another reason for the many early arrivals. Here the deserving DX'ers exchanged "eyeball QSO's" with each other, many who have not been together since the last convention. Following the bash, the DX'ers took off for a local eatery of their choice.

DX Contest Forum

The first of the series of seminars was the DX Contest Forum, chaired by Dick Norton, N2AA. Dick introduced Larry Tyree, N6TR, a member of the ARRL Contest Advisory Committee, who discussed what was happening within their committee. One major subject was a Contest Code of Ethics, but the com-

(please turn to page 3)

ARRL elects new officers

The ARRL Board of Directors met in Hartford, Connecticut, 26-27 March. One of the first items on the agenda was the election of officers to serve until the 1986 Annual Meeting (approximately a two-year term).

The new slate of officers is: Larry E. Price, W4RA, President; Leonard Nathanson, W8RC, First Vice President; Gar Anderson, K0GA, Second Vice President; Jay Holladay, W6EJJ, Third Vice President; Richard Baldwin, W1RU, International Affairs Vice President; David Sumner, K1ZZ, Secretary; James McCobb, K1LLU, Treasurer.

President Price was first licensed as WN5TIA as a high school student in Little Rock, Arkansas, in 1951. He has since held several call signs, but is best known as W4DQD and (since 1976) W4RA.

Larry served as ARRL Southeastern Division Vice Director in 1972, Director in 1973-79, and Vice President since 1980. He is chairman of the Department of Finance and Law at Georgia Southern College in Statesboro, Georgia where he resides with his wife Barbara.

The following directors were elected to the Executive Committee, which administers the League's affairs during the intervals between meetings of the Board: Paul Grauer, W0FIR; Hugh Turnbull, W3ABC; Lys Carey, K0PGM; Gay Milius, W4UG.

The Board reviewed background material on future ARRL participation in FCC's Volunteer Examiner program and discussed the matter in depth, ultimately reaffirming ARRL's desire to become a Volunteer Examiner Coordinator (VEC) on a national basis and authorizing the President and General Manager, on the effective date of rules adopted in PR Docket 84-265 to permit the recoupment of expenses by VEC's, to conclude an agreement with the FCC for the ARRL to serve as VEC for the 13 FCC-defined regions.

Relating to the same docket, the League will file comments with the FCC, expressing support of the proposal to provide reimbursement of VEC's for out-of-pocket expenses incurred in amateur examination administration.

Two other actions in regulatory matters were taken.

First, the General Manager was di-

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ARRL President Larry Price, W4RA

Phone bands expanded

The ARRL filed a Motion for Expedited Action for the expansion of phone segments in the 75, 15 and 10-meter bands, P.R. Docket No. 82-83, on 28 March.

This proceeding started two years ago when the FCC released a Notice of Inquiry and Proposed Rulemaking in March 1982. The League suggested the phone band expansion later proposed by the FCC in a Further Notice of Proposed Rulemaking in the same proceeding.

It is now almost a year since the Further Notice was issued, and eight months since comments were filed in response to that Further Notice. (See **QST**, June 1983, p. 59 and September 1983, p.63.) □

Carolina tornado

Chuck Clark, K4ZN

"Barometric pressure 29.08 inches and falling," reported the U.S. Weather Service on the afternoon of 28 March, a low pressure usually associated only with well-developed hurricanes. A tornado watch was in effect for the Carolinas. Some thought it strange, with blue sky and abundant sunshine, although there were winds blowing over 20 miles per hour, with gusts up to 40.

Then it struck. Newberry, South Carolina was hit by a monster tornado that swept its way to Winnsboro. Columbia, the state capital, and several miles south of the storm's path, experienced golf ball-sized hail that turned shiny new cars into wrecks and gave a new meaning to the expression, "Hail, Columbia."

Shortly before 7:00 p.m., Jack Pegues, KA4ABW, Emergency Coordinator for Chesterfield County, South Carolina, drove into an area a few miles west of Bennettsville and saw that it was devastated by what he judged to be a tornado. At 6:59 p.m., he was talking with the Weather Service office in Columbia through the Cheraw repeater (147.735/135).

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FCC lifts power restrictions

In response to a request from the ARRL, the FCC has lifted all power restrictions in the 1900-2000 kHz band. A1 and A3 emissions, with maximum permitted PEP output of 1500 watts, are now permitted in all areas under FCC jurisdiction on the entire 1800-2000 kHz band. This is effective immediately. □

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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.

Save those eyeglasses

Geoff Smith, VE3KCE

How would you like to do a splendid deed of such heroic proportions that you'll feel good about yourself for weeks? Would you be even more interested if you knew that it wasn't going to cost you anything? Now that I have gotten your attention, allow me to elaborate.

Dr. John Warnica, VE3JKW, is an opthalmologist who belongs to a medical mission made up of eye doctors and optometrists who donate their skills and vacation time to work in Third World countries.

One invaluable tool in their battle against vision disorders in these countries is to use a very mundane item — a discarded pair of eyeglasses. They may be no longer of any use to us, but after members of John's group have checked the lenses to determine the prescription and have catalogued this information, these discarded eyeglasses can be matched to the needs of some less fortunate individual in one of the countries which this medical mission visits. Where the lenses are too scratched to be of any use, the frames can be salvaged for parts. Nothing is wasted.

Last year, John and his group went through 50,000 pairs of eyeglasses. That's correct folks, 50,000 pairs, each one a discard from someone in Canada.

So what we are asking you to do is canvass your home, your neighbourhood, your work place for old eyeglasses. They can be mailed to me: St. Andrews College, Aurora, Ontario L4G 3H7, CANADA.

As a final note, John finds Amateur Radio to be most useful when he and the mission are abroad, using phone patches to keep members of the team in touch with their families. So if you hear him calling for a patch, perhaps you will make an offer of assistance.

— *The Canadian Amateur* □

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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.

Amplitude modulation

The AM Press/Exchange is devoted entirely to AM telephony for the radio amateur. It has been in regular publication since July 1983.

Regular monthly features report news about FCC and ARRL activities, happenings among the AM'ers, AM equipment modifications, homebrew projects, and keeping older AM equipment on the air.

The AM Press/Exchange is published 12 times per year. The editor is Don Chester, K4KYV. Subscriptions are $9 per year in USA and Canada, foreign rates upon request. Sample copies are available for $1 by writing to: The AM Press/Exchange, Route 1, Box 281, Woodlawn, TN 37191.

Free noncommercial advertising is available to subscribers. □

NEEDED: 2-meter equipment

The Orange County Chapter of the American Red Cross has a need for 2-meter radio equipment for their base station, field stations and mobile units. Any and all equipment would be acceptable, working or otherwise. The donation of equipment will be recognized as a tax deduction, so be sure to give an estimated value for a receipt.

Anyone wishing to donate such items may contact the North Orange County ARES via Gordon Cole, WB6GUC, 420 So. Laurel, Brea, CA 92621; or Bob Dantas, N6ETS, c/o Jet Propulsion Lab, 4800 Oak Grove Dr. T-1180, Pasadena, CA 91109; (818) 354-5595 or (714) 738-3489. □

Charter planned for DX'ers paradise

Amateurs who'd like to experience operating "from the other side of the pile-up" are encouraged to sign up soon for the two-week Amateur Radio charter that is leaving for Tahiti, French Polynesia on 08 July from Los Angeles International Airport. The group returns to Los Angeles 21 July.

The cost of the trip is $1,300 per person, which includes round-trip air transportation between San Francisco and Papeete, lodging, most of your meals, plus all of the regular U.S. taxes. If you travel alone, there is *no* single supplement. Space is limited, so get your plans made and make reservations now.

All participants will be staying in the homes of local FO8 operators with their families. For those who want to get on the air, stations will be available to licensed amateurs. It is *not* necessary to take along radio equipment, unless a particular keyer, microphone, etc. is preferred.

There will be plenty of time to enjoy such activities as scuba diving, deep sea fishing and swimming. If you wish to schedule your own visit to the island of Bora Bora, it may be possible to make arrangements in Papeete; cost is not included in the charter price. You will have a chance to enjoy Bastille Day celebration activities.

For more information, contact Ross Forbes, WB6GFJ/FO0FB, at (415) 948-5193. □

Correction

In the May 'DX World' column, page 22, under the heading "Congo (TN8)", readers were told to send QSL cards to Wolfgang Lichthardt, Y25LO, Logauweg 6, DDR-117, Berlin, WEST GERMANY. The address should have read EAST GERMANY. We apologize for any inconvenience this may have caused to our readers. (Thanks to Dave Flack, N6EVZ, for bringing this to our attention.) □

CONTENTS

Convention

(continued from page 1)

ittee felt this was something that really was not needed. Any other comments were delayed until an informal get-together at the Contest Suite, following the Saturday evening banquet. This reporter was not invited, so we cannot inform you what happened.

The forum was then thrown open for discussion with questions from the floor. There was interest concerning the CQ World Wide DX Contest that was held on a holiday weekend in November. As this is the CW weekend, there was an inequity concerning the October SSB contest where no holiday weekend occurs.

Tom Hoyne, N6NI, prepared a petition to have the two contests held on alternate weekends every year, (i.e., the SSB contest would be in October the first year, November the next year, and again in October the third year). A straw vote was taken where most were in favor of such a proposal.

There are four major contests in a five-week period, beginning with the World Wide DX Contest in October and ending with the other World Wide Contest in November. It was suggested to move the November Sweepstakes to a time where propagation for DX was not as good. It was brought up that the Sweepstakes had been held in November for many years and long before the DX Contests. A poll was taken where most wanted to see the Sweepstakes remain as is.

Other comments and gripes from the floor included things such as duplicate contacts with multi-operator stations and how to eliminate this, and stateside stations calling CQ in the DX tests, leaving no free space to hear DX stations.

Another complaint was the failure of DX stations to sign their calls after each contact. This, of course, brought out much comment from the floor. Although some DX stations always sign their call after each contact, it was felt that this wasn't required that frequently. In all reality, this problem can never be solved in a DX contest forum.

Carl Henson, WB4ZNH, of the Southeastern DX Club, was guest speaker at the Sunday breakfast. Carl's badge says his DXCC standing is 305. Notice Carl has lost 75 pounds.

Dick Norton, N6AA, then narrated a slide presentation of how he operates continuously for 48 hours in a DX contest. Dick heads for Trinidad where he is a guest operator at 9Y4VT. The first thing Dick does is rearrange the station for heavy duty contest operating. Such changes include placing the amplifier right next to the air-conditioner so that the cool air blows directly on the amplifier and not on Dick; placing the microphone on a box so he doesn't have to lean over; and placing T-shirts on the table where his arms will rest. (Remember, he is at this position for 48 hours moving his arms back and forth.)

The Saturday night banquet

Dick doesn't take time out for meals and has soup brought to him. Near the end of the contest, Dick drinks much coffee. The first year he didn't and fell asleep. (He didn't even know it and wondered how he had missed several minutes time. He discovered this from the tape recorder he uses during contests.) When asked about his other body functions, he remarked that the bathroom was the next room, and he turned on the automatic CQ machine. (Of course, many wondered why he called CQ for such a long time.) Dick commented that his tongue was raw after talking for such a long time, so he had to modify his speech habits with such as "five nine" and 9Y4 "Vicker Tango".

This approach of Dick's has worked well for him. Check the results each year in CQ and see who is at the top.

Code copy contest

For the last several conventions, Jim Neiger, N6TJ, has given his code copying contest. This is not the normal code copying test, but a test of your ability to copy as many of the DX calls you hear. There were 144 DX call signs sent in a period of less than five minutes. Jim said this was the hardest one yet. He was right, as they were sent at different speeds, different tones — many on top of each other (some slow at one tone right along with some fast ones at different tones). All the calls used were from past DX contests dating back to the 1960's.

To hear the tape was something else. My comments may sound insulting, but it sounded like a "Chinese Orchestra". I only copied seven calls, but then I couldn't get serious enough to make an attempt. The winners were announced at the Sunday breakfast.

80-meter extravaganza

Prior to the lunch break, Steve Orland, AA6AA; Ed Andress, W6KUT; Glenn Rattmann, N6NA; and Peter Dalton, W6NLZ — "big gun" DX'ers on 80 meters — presented slides and described

Dave Bell, W6AQ, the Master of Ceremonies. Dave was also the Southern California DX Club recipient of the "DX'er of the Year". Behind him is Joe Lacascio, K5KT, SCDXC president.

their own stations. Also scheduled to appear was Dale Hoppe, K6UA, who could not make it as he was out of the country. Often, these DX'ers were accused of hearing "imaginary stations" on this band, as no one else heard them. To show that they did hear those stations, Steve played a tape of the various calls working him on that band.

After watching these slides with envy, one begins to rethink his 80-meter position with a plain old inverted Vee.

DX'ing from Sovereign Military Order of Malta

Mario Gallavotti, I0MGM, presented an interesting presentation on the development of SMOM (Sovereign Military Order of Malta) station 1A0KM. Back in 1980, there was a severe earthquake in that part of Italy, and Mario and several other amateurs provided emergency communications which impressed SMOM officials, who then welcomed Amateur Radio.

SMOM was formed in the 11th century and was first located on Rhodes and then later on Malta. In the period 1530 to 1798, SMOM was a very powerful nation in the Mediterranean. When the United States was first formed, SMOM was offered territory in Pennsylvania for their protection of our shipping in the Mediterranean Sea, but it was turned down.

As operating from SMOM was now approved, the next step was to gain DXCC status. Mario said they had everything — stamps, coins, passports, legal opinions, etc. After much delay in DXAC, DXCC status was granted, effective 29 September 1981. Then letters from around the world came in. Some Honor Roll types were afraid they might miss it, or didn't believe it when they heard it. Operation from SMOM is to be limited to a few times a year, the latest one being 10-11 March.

Mario's talk was supplemented with slides showing SMOM. They were taken by Tony Privitera, I0IJ, (who also took the photo for the 1A0KM QSL card). SMOM is located on a hill, Villa Malta, in Rome. The choice location for the antenna was at the top of the hill, of course, but this required dismantling the antenna after each operation. Mario stated that visiting amateurs are welcomed to operate from 1A0KM, but only if the station is operating at that time.

Nana Ihara, JI1VLV, who also operated as 5Z4NN from Kenya. Dick Fleming, WA6POC, has worked her often.

DX Forum

The DX Forum was run by Jim Rafferty, N6RJ, John Lindholm, W1XX, and Bob Thompson, K6SSJ. Jim and Bob are members of the DX Advisory Committee, representing the Southwestern and Pacific ARRL Divisions respectively, where John was from ARRL Headquarters in Newington.

The latest from the DXAC included such items as not deleting Spratly Island from DXCC status, (a vote of 14 to 2), allowing contacts made on 10 MHz to count for DXCC. The committee also recommended against several items, such as starting DXCC all over again, and recommended an expansion of the DX awards program. In the matter of the Pribilof Islands on granting DXCC status, the vote was 8 in favor and 8 against.

John Lindholm then explained the headquarters' policy on the accreditation criteria, which is accepted by both the DXAC and ARRL headquarters. There are three basic rules: 1) the station must be properly licensed; 2) the station must be in the country the operator claims to be operating from (is he really there?); 3) most operations are credited without question.

For DXpeditions and countries where licensing is known to be a problem, such documents or proof should include: 1) photocopy of the license; 2) passport showing entry and exit; 3) islands requiring permission from the captain.

The purpose of the above requirements is to preserve the awards program's integrity and ensure that Amateur Radio is not jeopardized.

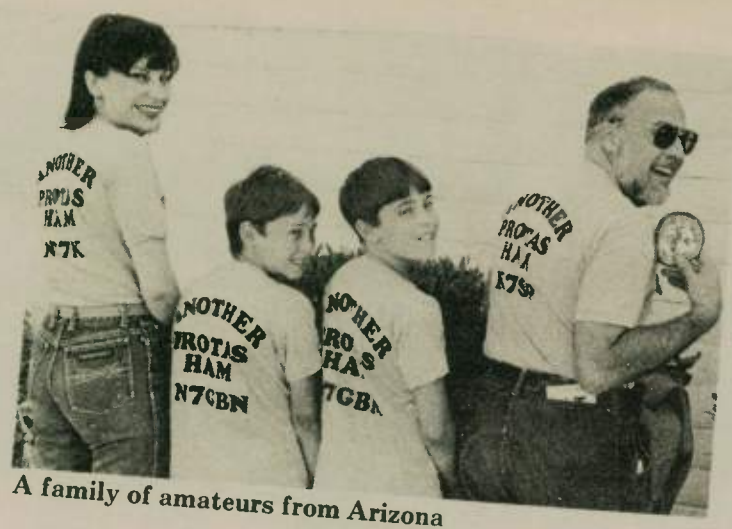
John discussed some additional endorsable DXCC awards, including a new RTTY endorsement, effective 01 August 1984, a new 160-meter endorsement, with a suggested effective date of 01 November 1984, and a new satellite endorsement. For the latter, LEO (Low Earth Orbit) contacts would still be required for the basic award, but endorsements could be made with OSCAR-10 contacts. There is also the possibility of single band and/or WARC band DXCC in the future.

John explained the process of how suggestions were implemented. All suggestions go through the DXAC, and from there it goes to the awards committee. From this point, if approved, it goes to the Communications Department for implementation. The ARRL General Manager may reject any of the decisions made by the committees, but must do so publicly.

DX'ing in the USSR

One of the best presentations we have

(*please turn to page 14*)



A family of amateurs from Arizona

Jean and Charles Shaffer, KM7E and K7NW, of the Western Washington DX Club. This couple described their 12,000-mile tour through the Soviet Union.

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Special Events...

Ohio Wine Week

The Wireless Institute of Northern Ohio (WINO), an organization sponsored by the Lake County Amateur Radio Association, will be on the air with a special event station to commemorate Ohio Wine Week on Saturday, 02 June, and again on Sunday, 03 June. On Saturday evening we will be operating between 7:00 and 11:00 p.m. EDST (2300Z, 02 June to 0300Z, 03 June) on 3910 and 7235 MHz. On Sunday afternoon we will be on between 11:00 a.m. and 4:00 p.m. EDST (1500Z-2000Z) on 7235 MHz and 21360 MHz.

The station will be located at an actual winery in Madison, Ohio, and will use the call KO8O. A special 8" by 11" QSL certificate will be available from: KO8O-WINO Weekend, 7126 Andover Dr., Mentor, OH 44060. Send legal-sized SASE. □

Eighth Street Festival

The Madison County ARC will operate the club station, W9VCF, portable from the historic Eighth Street Festival in Anderson, Indiana, 08-09 June. Suggested operating frequencies are: 28.785, 21.400, 14.340, 7.290 and 3.990 MHz.

A special certificate will be offered to persons contacting the club station during the festival or any club member during the month of June.

Send log information and a $1 donation to: Madison County ARC, c/o Frank M. Dick, WA9JWL, 921 Isabelle Dr., Anderson, IN 46013. □

MECA special event

The Macomb Emergency Communications Association will have its second special event on the weekend of 08-10 June.

Operation will commence at 2200Z Friday, 08 June, and continue around the clock to 2200Z Sunday, 10 June, near the lower end of the General Class portion of each amateur band as propagation dictates. Modes of operation will be SSB and CW/RTTY on HF, and FM phone on 146.07/67.

QSL to MECA, Box 488, Utica, MI 48087 with a 9" × 12" SASE. DX stations need send only QSL for certificate. □

Brookfield Zoo

The Chicago Suburban Radio Association will operate Special Event Radio Station N9BAT from Brookfield Zoo in celebration of its 50th anniversary. It is one of the largest zoos in the United States, and was the first American zoo to exhibit animals in naturalistic displays behind moats instead of in cages. Its Tropic World is the largest zoo building in the world, housing African, Asian and South American rain forests.

Operation will be 9-10 June, 1600Z-2400Z, using the phone frequencies of 7.250 and 14.250 and MHz. A special full-color zoo QSL card will be available to all stations that reply with their QSL card and a #10 business-size SASE to: N9BAT Special Event, P.O. Box 383, Brookfield, IL 60513. — *Robert Drapeau, K9AJW* □

Pony Express Day

The Missouri Valley ARC will hold its 5th Annual Pony Express Day on 16 June, from 0900 CST to 1700 CST and on 17 June, 1000-1300 CST. The event commemorates the original running of the Pony Express from St. Joseph, Missouri to Sacramento, California.

Anyone making contact with the club station W0NH is eligible to receive a Special Pony Express Certificate. The operating frequencies will be 10 kc from the bottom of the general phone bands on 15, 20, 40 and 75 meters. On 10 meters, the frequency will be 28.575. The CW bands will be 28.150 on 10 meters, 21.150 on 15 meters, and 7.125 on 40 meters.

To receive the certificate, send one first class postage stamp and a QSL card to the Missouri Valley ARC, 401 N. 12th St., St. Joseph, MO 64501. □

Nebraskaland Days

The North Platte (Nebraska) ARC will operate W0CXH from 1700Z-2300Z, 16-17 June, during Nebraskaland Days, from the home of "Buffalo Bill" Cody. Frequencies: *Phone* — 7.250, 14.290, 21.400; *CW* — 7.125, 21.150.

A certificate will be available for a large SASE sent to NPARC, Box 994 North Platte, NE 69103. □

Simi Settlers

The Simi Settlers ARC of Simi Valley, California will operate a special event station celebrating Amateur Radio Week in Simi Valley. Operating times will be from 1700Z to 2300Z, 16-17 June.

We will be in the lower part of the 15, 20 and 40-meter General band. Also, 80 meters will operate from 0300Z to 0700Z, lower General band.

A special certificate will be sent to those sending a large SASE and QSL card to station worked, or to SSARC P.O. Box 3035, Simi Valley, CA 93063. □

• Silent Keys •

Robbie Robinson

Leland Champion, N5ETK

Early in January, while in QSO with Doug Sandford, ZL4AX, of Dunedin, I asked about Robbie Robinson, ZL4AC. Robbie was my first real DX back in '32, and I have never forgotten the thrill it brought to me to work someone beyond the West Coast. (I was W5CCW in Arkansas then.)

Doug told me he had heard that Robbie had joined the big DX club in the sky, where the QRM is nil and there are no pile-ups at all. I was reluctant to report this on such flimsy information. However, on 19 March, in QSO with Neil McDonald, ZL4BK, I learned that Robbie had passed away on Christmas eve at the age of 83.

Neil reported from a local publication, *Otago Branch*. QSB set in about then and the info became rather sketchy, but fortunately a few nights later I was in QSO with Alex Mason, ZL4IE, also of Dunedin, who filled me in with more details.

It seemed that Robbie came to San Francisco in 1919, where he completed a radio course at the Pacific Wireless School. At that time, he was sending radio parts back home to his father. He returned to New Zealand, and in 1923 became the sixth Amateur Radio operator to obtain a license from the New Zealand post office.

Last year, he was given a certificate for 60 years of Amateur Radio operating. He started with spark rigs on ships in 1920 and became a life member of the Professional Society of Wireless Operators. In 1931 he became a member of the ARRL DXCC.

According to ops who so kindly pounded out this info, it seems Robbie remained true to his origins as a CW and damped wave operator. The last QSO in his log was with Alex ZL4IE, on 15-meter CW. Robbie is survived by his XYL, Elizabeth. □

Special Events

(continued from page 6)

WW II submarine

The Northern Ohio Amateur Radio Society (NOARS) and the *USS Cod* will be on the air again during the summer of '84. NOARS members will be operating from the *Cod* starting Memorial Day weekend, running daily through Labor Day weekend.

Look for operations in the lower portion of the General bands, 10 through 80 meters, with special Novice operations on 16 June, 15 July and 18 August, and Extra operations during the Cleveland Hamfest, 23 September. There will also be some SSTV and RTTY on 20 meters.

QSL cards picturing the *USS Cod* and NOARS station will be sent out confirming all contacts; a special 8" × 11" certificate will be available upon request with QSL confirming the two-way contact and $1 for handling and postage. Send all QSL's to Don Winner, WD8RZG, 8927 Torrance Ave., Brooklyn, OH 44144.

The *USS Cod* is on permanent display as a War Memorial to honor the men of the Silent Service, located at the port of Cleveland between East 9th Street Pier and Burke Lakefront Airport. Guided tours of the submarine by WW II Sub Vets are given daily. So come on down for a historic visit into the past for an adventure to remember. □

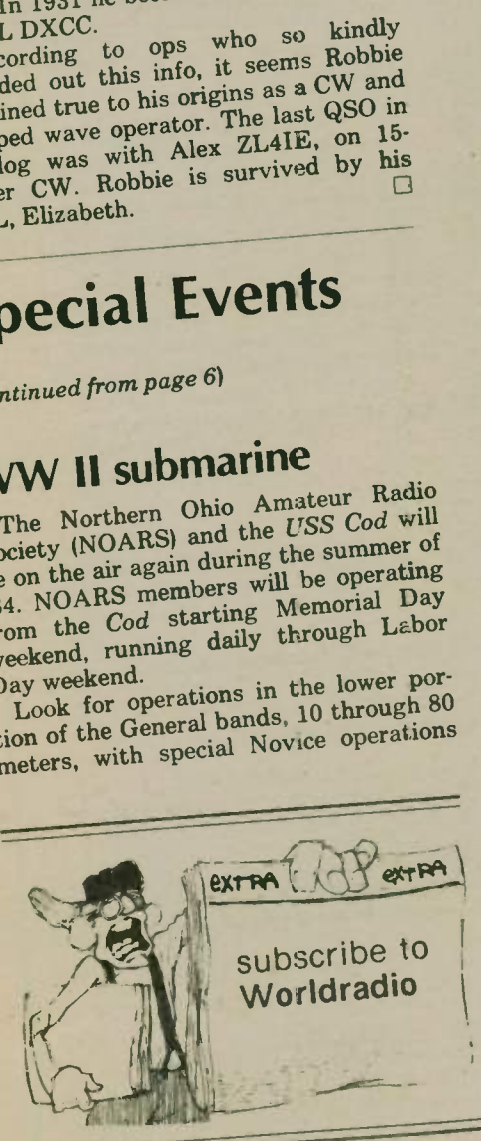
Tom Sawyer Days

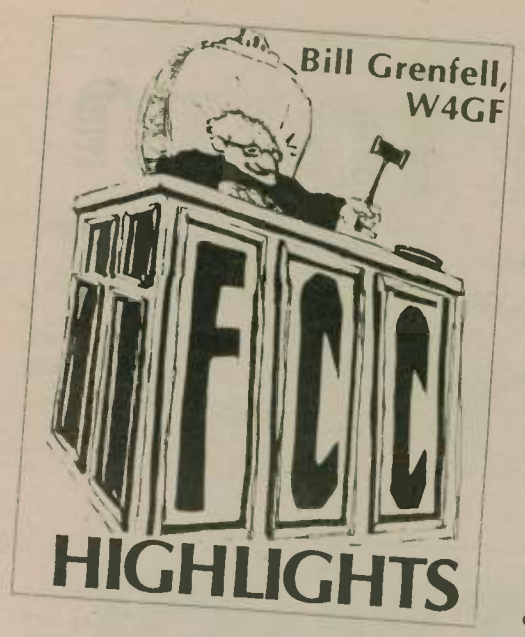
The Hannibal ARC, Inc. will issue a 4th annual special certificate from the National Tom Sawyer Days celebration in Mark Twain's Boyhood Home Town, Hannibal, Missouri, on Saturday, 30 June, and Sunday, 01 July.

Hours: 1500-2100 UTC both days. **Frequencies:** *Phone* — 7.245, 14.290, 21.400, 28.770; *CW* — 7.125 and 21.125 MHz. Help us celebrate!

To receive the certificate, send a large (8" × 10") SASE and your personal QSL card confirming the contact to Hannibal ARC, Inc., WØKEM, 2108 Orchard Ave., Hannibal, MO 63401.

For further information, contact: Tony McUmber, 2108 Orchard Ave., Hannibal, MO 63401; (314) 221-6199. □





Effective 22 March 1984, use of "full" power across the entire 160-meter band was authorized to amateur stations by the FCC. Thus, a maximum of 1500 watts PEP output, A1 or A3 emission, may be used in areas under Commission jurisdiction anywhere between 1.8 and 2.0 MHz. The Order was released 27 March.

•

"When an uncoordinated repeater interferes with a coordinated repeater, the conflict is resolved in favor of the coordinated repeater," wrote the FCC in response to a query about the ordered removal of an uncoordinated repeater in the San Diego area operating on the same frequency pair used by a coordinated repeater located 30 miles away. The trustee had applied for coordination. Cited as a basis for the decision was an April 1983 statement issued to a repeater council (Connecticut, New Jersey, New York) by the Chief of FCC's Private Radio Bureau.

•

The extent to which transmissions from amateur stations may be used by broadcast stations is under consideration at the FCC in the form of a draft notice of proposed rule making.

The Grenada invasion brought the limitations on amateur communications rather forcefully to the attention of the broadcast media when the amateurs who were handling emergency communications between the USA and Grenada rightly refused to act as remote pickup stations for the networks for their news programs.

Section 97.113 of the Amateur Radio Service Rules states (in part) that ". . . an amateur station shall not be used to engage in any form of broadcasting, that is, the dissemination of radio communications intended to be received by the public directly or by the intermediary of relay stations . . . The foregoing prohibition shall not be construed to prohibit amateur operators from giving their consent to the rebroadcast by broadcast stations of the transmissions of their amateur stations . . ."

One report indicated that "The thrust of the work will be to untangle the regulations governing such use of ham transmissions with an eye to simplifying and clarifying the rules." *(WESTLINK Report,* 03/09/84)

•

The ARRL petition requesting authorization of F1 operation in the 160-meter band has been assigned RM No. 4774. Those filing a comment on it with the FCC should send a copy to the ARRL. I understand it is not likely to receive early action by the Commission.

•

Questions for elements 4-A and 4-B Amateur Radio operator license examinations should be available from the nearest FCC Field Office in early May. 4-A is for Advanced Class examinations, and 4-B if for Extra exams. Ask for PR Bulletins 1035C and 1035D, respectively. Previously issued bulletins are: PR Bulletin 1035, Study Guide For The Amateur Radio Operator Examinations; 1035A, Novice Class, Element 2; and, 1035B, Technician and General Class, Element 3.

William Grenfell, W4GF, works out of his Annandale, Virginia QTH.

•

The FCC is looking into the possibility of RACES use of the entire 50-54 MHz repeater sub-band, in response to a petition filed by the SCRRBA (a California repeater association).

•

Reports that the FCC is seeking requests for rule making to govern simplex autopatch devices for connection of Amateur Radio stations to common carrier telephone lines are probably premature. I understand that consideration will be delayed until the common carriers have settled down from the shock of deregulation and divestiture. Also to be considered will be the report on the simplex autopatch study called for by the ARRL Board at their 26-27 March meeting.

•

A new arrangement has been concluded between Dominica (J7) and the United States, to permit the exchange of communications on behalf of third parties, between amateur stations in these two countries.

•

A petition to require amateurs to be tested at increasing 5 word code speeds to the 35 wpm level was dismissed by the FCC's Private Radio Bureau Chief, Robert Foosaner, on 09 March 1984.

He stated that ". . . since your petition did not present any new or novel issue not previously addressed by the Commission, it does not warrant consideration by the full Commission." The petition was filed by Wayne Green, W2NSD.

•

There is no difficulty at all about asking for (early use by amateur stations of the new) 24 or 902 MHz (bands), reports ARRL after a recent meeting with a military frequency manager.

See last month's 'Highlights' for my report on the 10 and 18 MHz bands. Both the 18 and 24 MHz bands are now used by some stations in the fixed service, including military RTTY, etc.

The FCC's frequency allocation table footnote US248 states, in part, that: "Until reaccommodation actions of the International Telecommunications Union are completed, the bands 18068-18168 kHz and 24890-24990 kHz are allocated as an alternative allocation to the fixed service." . . . "However, assignments of the fixed service in these bands shall be terminated no later than 01 July 1989."

Thus, while the chance of early amateur use of the 24 MHz band looks good, it appears likely that the 18 MHz band might not be available to amateurs until 1989. The military has circuits there for which it has not yet found new homes, reports ARRL.

•

The matter of the failure of a Florida amateur to pay a $550 fine levied by the FCC for his operation in the 40-meter Novice band with excessive power (540 watts), has been turned over to the U.S. Attorney.

According to the Compliance Branch of the FCC's Special Services Division, the Attorney did accept the case and has written the licensee of W4BRB/W4OO, giving him a last chance to pay before a suit is filed in court. No further developments were known at the time this was written.

According to the *W5YI Report* (03/15/84), "A neighboring ham, Henry Luhrman, W4PZV, said that Sykes was

actually causing him intentional (second harmonic) interference by operating on 7123 MHz. "Luhrman was operating on the 20-meter phone band."

•

The Detroit Field Office of the FCC has been moved to: 24897 Hathaway St., Farmington Hills, MI 48018-1398. The telephone number remains (313) 226-6078, and (313) 471-0052 for leaving a recorded message with them.

•

The FCC proposes reimbursement of costs for volunteer-administered Amateur Radio exams (PR Docket No. 84-265, adopted 03/06/84). It would provide a total of not more than $4 (adjusted every January to the Price Index) per examinee" . . . reimbursement of out-of-pocket expenses incurred by volunteer examiners (VE's) or volunteer examiner coordinators (VEC's) in connection with the preparation, processing or administration of examinations for amateur station operator licenses above the Novice Class." . . .

"The amount of such reimbursement from any examinee for any examination or series of examinations related to a single application must not exceed the published maximum." . . . "The Commission noted that it would continue to administer some examinations in its field offices and at a few remote points this year until such time as the volunteer program is in place."

Indicating the wish to implement the program as soon as possible, FCC limited the original plus reply comment period to 01 May.

•

Correct the 06-19 August FCC exam schedule listing in February *Auto-Call* (page 7), March **Worldradio** (page 9) and March **QST** (page 49), to read: 06-10 August.

•

The amateur station license, N6BHC, of Paul Overlock was revoked, his Technician Class amateur operator license was suspended, and his application for General Class operator license denied, effective 05 March 1984.

The action was based upon his willful and repeated violation of the CB rules by transmitting on unauthorized frequencies; by using non type-accepted equipment; by communicating over more than 250km; and by not identifying his transmissions by Commission call sign (a requirement of a rule effect at the time of the violations).

•

The requirement that only persons holding commercial radio operator licenses may install, maintain or repair stations in the land mobile, private fixed microwave, general mobile (subpart A), radio control (subpart C), and citizens band (subpart C) services have been deleted from the rules by the FCC, effective 180 days after the amended rules are published in the Federal Register (probably by November 1984, I estimate).

The amendments encourage licensees to use persons certified as technically qualified by users organizations. Stations in the Aviation, Marine and International Fixed Services must continue to use FCC licensed operators of the appropriate class for installation, maintenance and repair.

Thirty days after the Federal register publication date, the General Radiotelephone Operator license will be issued for a lifetime term on the present diploma-type form."

Some time after the 180-day period has lapsed, the FCC will start issuing Gen-

(continued on next page)

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_____

_____

"Amateur Radio call signs" did not arrive in time for the June issue.

NEEDED: net info

Where are the TRS-80 computer nets? I am especially interested in East Coast communications.

ART PRUTZMAN, K3DTL
31 Maplewood
Dallas, PA 18612 □

Farout ARC will go far, he says

On 17 September 1983, I worked Ruthann Weaver, WD8BMK, who was operating special event station WB8SMC, in celebration of the 10th anniversary of the Farout ARC, located in Dayton, Ohio.

We exchanged QSL's, and on 03 March 1984, I received a beautiful personalized plaque as a token of the club's thanks for being a part of their celebration. Three QSL's were drawn at random, and I was lucky enough to be one of them.

I would like to publicly thank the Farout ARC very much. A club like this that takes that "extra" step has to go FAR indeed! May they have 100 more anniversaries!

RICHARD SCHOTT, KA2PHQ
Spencerport, New York □

Be safe with switch

In regards to John Minke, N6JM's "Note on 'Caution'" in the March **Worldradio** (page 2), he is certainly correct in all he says. However, I believe all hazards can be eliminated by simply installing a suitably sized double-pole/double-throw switch connecting the house wiring to the "blades", the generator to one side of the switch, and the outside or power company line to the other side. Thus, there can be no chance of inadvertently connecting the generator output to the power lines.

I have had this set-up for several years now, and it works perfectly. We need a generator desperately here in the Islands, due to many power outages — both accidental and intentional. I have even installed a buzzer connected to the incoming power line through a transformer and with a cut-off switch. This is a means of letting me know when the power comes back on.

My 3kW generator will handle the refrigerator, water pump, a small burner on the stove and some lights. Incidentally, my generator has two female plugs on the output — one for 120 volts and one for 220.

LOUIS BEAN, KV4JC
St. Croix, U.S. Virgin Islands □

WARNING: wiring can be lethal

A letter from John Minke, N6JM, on page 2 of the March 1984 issue caught my eye. Being an electrical distribution engineer for the local electric company here in Milwaukee, I felt it necessary to add some advice.

Be very careful when hooking a generator into your home electrical system when the power is out. Several years ago, we had a lineman killed when he contacted a line which was supposedly dead but was actually energized. It turned out that a farmer had hooked his generator to his house system when the power had gone out, and just as N6JM suggested, the 120VAC from the generator was fed into the pole transformer and was stepped up to a very lethal voltage. The lineman was not wearing the proper safety equipment when he contacted the line and was killed instantly.

Another situation similar to that suggested by N6JM deserves comment. If your generator is hooked up when power is restored, and the generator power is out of phase with the commercial power, the generator can be seriously damaged due to mechanical shock or voltage and/or current surges. The circuit breaker on the generator (if it has one) may not be fast enough to prevent the damage.

If you are hooking up your generator when the power is out, first turn off the main breaker or disconnect switch in your breaker or fuse box. Then hook up your generator. When the commercial power has been restored, shut off the generator, disconnect it, and close the main breaker or switch. Failure to do otherwise can result in death or severe injury, as well as damage to your generator.

I also have a suggestion regarding house wiring. Do not try to do any wiring in your fuse or breaker box unless you are an electrician. Doing wiring in the box isn't quite like doing other house wiring. If the main line is shorted to ground accidentally, there will be a high surge of current through the short.

On our system, the short-circuit current can be as much as 22,000 amps, which is the amount of current of a fairly healthy lightning bolt. Furthermore, unless the wiring is done to local state and/or national codes, a safety hazard can be created, resulting in a fire or personal injury and death. Play it safe — call an electrician.

ROBERT RUNNELS, AJ9U
Milwaukee, Wisconsin

Modifications needed for Atlas 210X

I would like to have modifications necessary to operate the Atlas 210X on AMTOR. Can anyone help me?

G.W. SWARTZLANDER, KG8Y
120 S. Granville Blvd.
Fremont, OH 43420 □

Tubes needed!

I recently returned last week from a trip to Panama, Honduras and Costa Rica while on active two-week military duty with the California Air National Guard. While there, I had a chance to visit with HP1XPU in Panama City, whom I had QSOed with previously. I also spent four days in Costa Rica supporting a U.S. Embassy mission in a northern rural area of Costa Rica.

The city I was in is known as Liberia. It is a poor area, but very pleasant. I made a 2-meter radio contact with Mario Salgado, TI2PS/TI7PS, in Liberia. He owns the local broadcast commercial AM radio station in Liberia known as "Radio Guanacaste".

(please turn to page 12)

FCC

(continued from page 9)

eral Radiotelephone Operator licenses on a card-type form that will be ". . . valid for operation, maintenance and repair of stations in the Aviation, Maritime and International Public Fixed Radio Services only.

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"The renewal grace period for commercial radio operator licenses that will continue to require renewal will be extended from one year to five years. Anyone holding a commercial radiotelephone or telegraph license that continues to require renewal and that expired up to five years ago will be able to renew it without having to retake the examination." □

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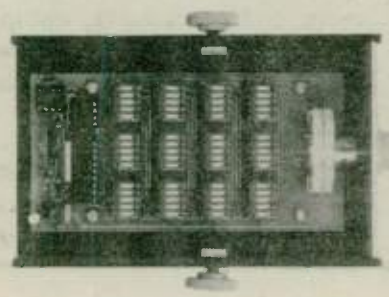

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77.0 XB	94.8 ZA	114.8 2A	141.3 4A	173.8 6A	
79.7 SP	97.4 ZB	118.8 2B	146.2 4B	179.9 6B	
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Off the Air

(continued from page 10)

The radio station is rather basic and primitive in its operation, with a total power of 1000 watts. It serves the need for community service in an area very close to Nicaragua.

To help maintain the station, I was requested by Mario Salgado to ask if it were possible that there was a need of some tubes for this station. Because of the cost, it is very expensive to operate the station. If any amateurs have surplus tubes known as "845's" or "833's", they would be very much appreciated by TI2PS.

If someone does have access to "845's" or "833's", they may get in contact with me and I will send them to Mario Salgado in Costa Rica. My address is:

GEORGE ROMANISKY, WA6WXD
8619 Calvin Ave.
Northridge, CA 91324 □

The equipment found by Frank WB2ABT and Charles Gspaan, W2ZEE, consisted of a base station (right) and a mobile package. ***(Photo by Frank Gspaan, WB2ABT)***

Illegal equipment

I seem to recall — from my high school days, I think (1936-1940) — that the short story was a popular literary form. Today, the short story — together with precise writing — appears to be a lost art. While Hollywood could, without doubt, develop this story into a four-hour-plus saga. In truth, the tale I'm about to tell describes an incident which lasted only an hour and 43 minutes, so this will indeed be a short story!

The Monmouth County Repeater Association sponsors a 2-meter repeater in the Asbury Park, New Jersey area, which operates on 147.045/645 with the call W2EXQ/R. I'm one of a handful of control operators who take turns "minding the store".

On Thursday, 05 January 1984, at 1645, I heard a very loud signal on the output frequency of the repeater that snapped me to attention real quick. Even with the volume control set for a low output level in the room, the keying tone (approximately 400 Hz) from the S-9 ++ signal came knifing through the air like the wail of a banshee followed by a succession of dial pulses and then what appeared to be one side of a telephone conversation. No beam was available at my location, but even so, the signal was so strong that I doubt a "fix" could have been obtained.

The next time this signal appeared was 1815. I was at home and could coordinate with Willis Smitherman, WB2GJZ, and Sol Shwisberg, KA2FDX, and also made a tape recording of the commotion. From this I could verify the number dialed and secure the first names of the parties involved.

Things went quiet for a while, then at 1825 (I was just finishing my coffee), another call was made. This time, the caller stated his location and destination, which was quite close to my home. With that information, I grabbed my hat and coat, informed WB2GJZ of my intentions and at 1827 drove up behind the culprit, right in the driveway of his parents' home.

What happened next was hilarious, but that's not important. What is important is the following:

1) The gentleman involved was very cooperative and allowed my son, Frank WB2ABT, to photograph the equipment and examine it for identifying markings.

2) The only identification we found was: SUPERCALL Model 080 KM, Made in Japan.

3) The equipment consisted of a base station and a mobile package.

4) Inside the base unit three crystals were noticed: a) 8.84583, b) 45.45 and c) 10.245.

5) Inside the mobile unit were also three crystals: a) 16.33888, b) 42.375 and c) 10.245.

6) The measured output frequencies were: a) base unit 53.075.231 and b) mobile unit 146.048.234.

Apparently, this equipment is finding its way into the country, and it would appear that the manufacturer is well aware it is illegal since no company name, address or FCC-type approval was found.

Perhaps we should alert all agencies with a possible interest. For this reason, I'm sending this information to you and those listed below. If you think of other interested parties, perhaps you could send this information to them as well. Please let me know if you do. Hopefully, we can nip this in the bud before it gets really serious.

CHARLES GSPANN, W2ZEE
Deal, New Jersey □

ATTN: Kenwood TS-530S owners

I recently blew the driver tube and a resistor in my Kenwood TS-530S transceiver, and I think it was due to improper tune-up procedures, as outlined in the manual — the difference between tuning up and operating on CW or tuning up and operating on SSB, as it relates to the ALC meter setting.

I feel that the Summary of Transmitter Tuning Procedures, as outlined on the bottom of page 17, is somewhat inadequate in that it does not distinguish between the two modes of operation. The use of voice peaks to position the ALC meter is not mentioned, as well as the use of the Mic Ga in Control to set the ALC for SSB transmission.

A Kenwood tuner was used during my tune-up procedure. Any information as to step-by-step tune-up procedure for SSB or CW, and for getting this rig on the air properly would be appreciated.

CURT BARNETT, KA6EMR
6687 North Sharon
Fresno, CA 93710 □

Dilemma solved

I have had an interesting experience that I'd like to share with others who may run across the same problem.

Last April I bought a slightly used 1982 Chevrolet Celebrity from Lou Grubb Chevrolet in Phoenix, Arizona. Lou's call sign is WA7HZO.

When I got back home to Prescott, I started the job of installing the 2-meter rig in the car. The rig was an IC-22S, and it worked fine till I turned the air conditioner on. When the air conditioner was on, the receiver was muted — no sound at all, even though the meter and light showed there was a signal coming in. It could transmit with no trouble, and even went directly to the battery, and still the same problem.

I put an RF choke in the hot lead and the problem was solved. Worked fine. Then came the big problem. I changed rigs and installed a TM 201-A. The choke was too small for the 25 watts, and a heavier choke was too big physically.

I had heard from another Chevrolet dealer that there was a General Motors directive that ham radios and mobile phones should not be installed in Chevrolets equipped with Computerized Command Control. I wrote to Lou Grubb and informed him of the problem, and the

(please turn to page 14)

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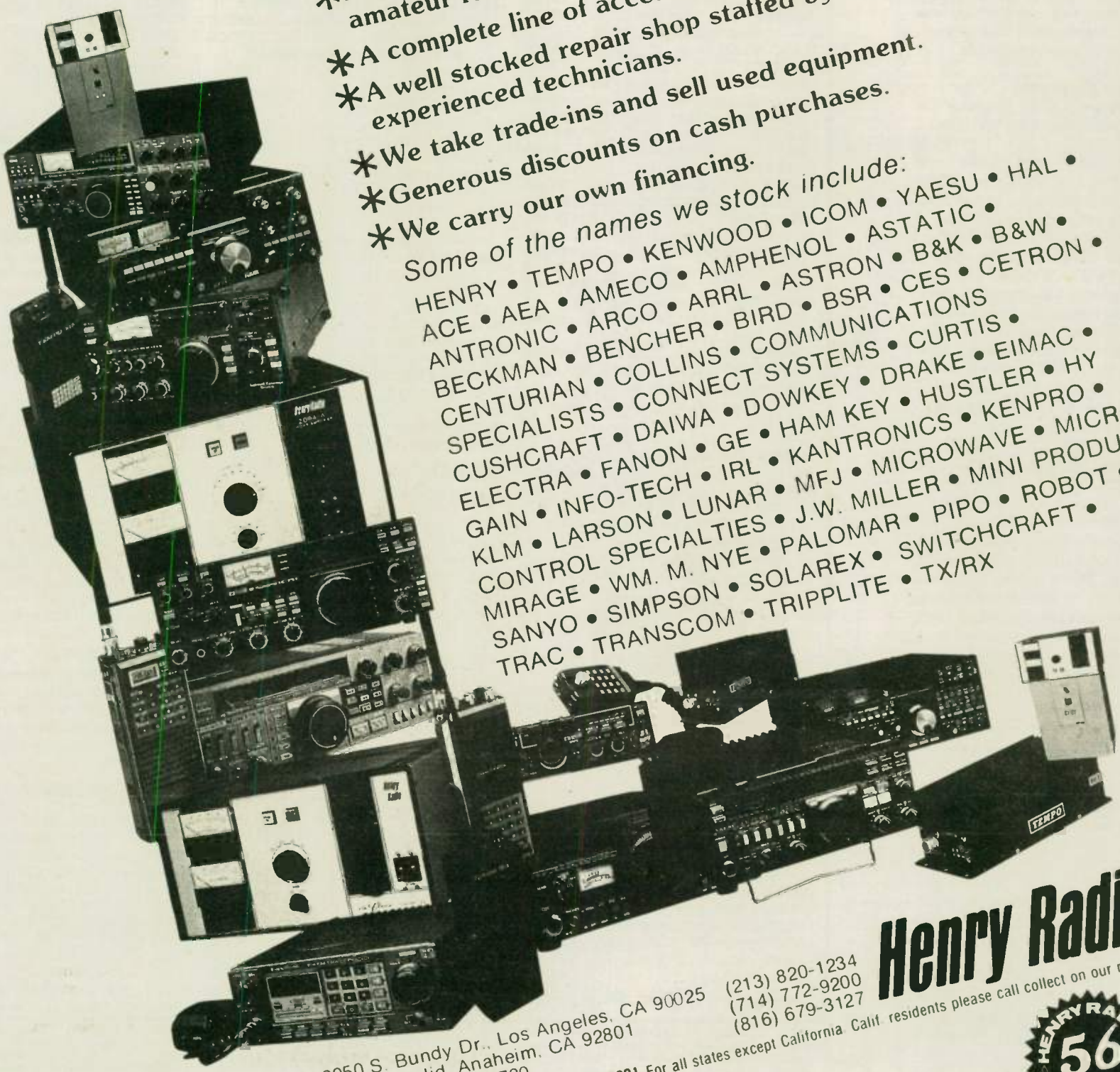

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Convention

(continued from page 4)

seen in a long time was brought to us by Charles and Jean Shaffer, K7NW and KM7E. The Shaffers had traveled some 12,000 miles through the Soviet Union by rail and air. Their talk was supported by excellent slides of the local Soviet life plus those of about 30 radio amateurs they visited during their tour.

Following the Shaffer presentation was that of the XU1SS operation in Cambodia, narrated by Irv Emig, W6GC, and the BY4AA and BY8AA stations in China by Kan Mizoguchi, JA1BK. Kan had also provided the slides for the XU1SS operation. Operation at BY8AA is a unique station arrangement. The transmitter and receiver are 50 km apart. The operator at the receiving end calls the transmitter site by phone whenever he wants the transmitter turned on or off, or to change frequency. Operating the transmitter is over another keying line.

Cocktail party

To relax after the day-long seminars, the DX'ers were treated to a cocktail party, that was hosted by Henry Radio. The party was held in the outdoor pool area of the Holiday Inn. As the day was one of the first warm days of the year, the atmosphere was most enjoyable.

Saturday evening banquet

At our table were DX'ers sporting the calls KC7V and K5VT (Arizona); WB4ZNH from Georgia; WA7BPI from Washington; K7OXB from Utah; and W6JCE, WA6POC and N6JM from California. Note that a couple of those calls belong to famous DXpeditioners.

The Master of Ceremonies was Dave Bell, W6AQ, with Frank Cuevas, W6AOA, as General Chairman. Before getting into the program, Frank introduced many of the overseas DX'ers who were attending the convention. Two DXpeditions — the HK0TU operation on Malpelo, by Eduardo Londono, HK4BHC, and the VU7WCY DXpedition to the Laccadive Islands — were the main subjects of the evening. Gopal VU2GDG came all the way from India to narrate the VU7WCY show.

Every year, each of the two major DX clubs in California picks a DX'er of the Year, who is announced at the banquet. The Southern California DX Club awarded their member, Dave Bell, W6AQ, with that honor, while the honors in the Northern California DX Club went to Jay O'Brien, W6GO. As Jay received his award, he mentioned that much of the credit should also go to his wife, Jan K6HHD, who works closely with him on DX matters.

At the conclusion of the banquet there was a prize drawing. The pre-registration prize, a Kenwood TS930S transceiver from HRO, went to Alice Allan (XYL of John W7YR). Other prizes from the raffle included a Henry 2K Classic amplifier, won by Len Geraldi, K6ANP; a Hy-Gain 402B 2-element 40-meter beam, won by George Pugsley, W6ZZ; a Hy-Gain 300 rotator won by Frank Cuevas, W6AOA; a Tempo S15 2-meter hand-held transceiver, won by Bill Kendrick, WB6ZHT; an AEA CK-2 keyer won by Anne Marie Almeida, WB6MWA; a $100 gift certificate from Robot Research, Inc., won by Dennis Pickering, WA6RTC; a Tristao tower-raising fixture, won by Ron Pipes, WB6NBR; and the ladies' prize, an O'Keefe and Merrit microwave oven, won by Brenda.

The DX breakfast

The final gathering of the Visalia DX Convention was the buffet breakfast Sunday morning. Next to me at my table was Bob Winn, W5KNE, editor of *QRZ DX*, along with several members of the Central Arizona DX Association.

Prior to the two scheduled presentations, Jim Neiger, N6TJ, announced the winners of his Code Copy Contest. The "top 10" had at least 32 correct calls

Off the Air

(continued from page 12)

next day I received a phone call from one of his top men, Buddy Rice, asking me to bring the car to Phoenix the following Friday. Being a ham himself, Lou was interested in the problem, and when I got to Phoenix, he had flown in a man from the Texas plant who is Chevrolet's expert in the field of electronics. In a short time, they had solved the problem.

When the air conditioner is turned on, the electric cooling fan for the engine is also turned on. This is separate from the thermostat that turns the fan on when the engine gets too hot. The device that activates the fan when the air conditioner is turned on is a solid-state device called a "speed control module."

It was found that this device was putting out a signal that blocked the radio receiver. The device was removed and everything is fine now.

It has been a wonderful experience to find an automobile dealer who would go so far out of his way to solve a problem that was not related to the general car performance. I hope that anyone else having a similar problem has the good luck I had.

JIM WALLACE, WA7UJG
Prescott, Arizona

copied out of the original 144 calls that were sent. Jim said that half of those top 10 were "carpet baggers from the East."

With 32 correct calls and tied for sixth place were Martti Laine, OH2BH; Dave Hodge, AA6RX; Randy Thompson, K5ZD; and Richard Tavan, N6XI. In fifth place were Jim McCook, W6YA, and Tom Taormina, K5RC. Bill Tippett, W0ZV, copied 36 calls correctly for fourth place. In third place, with 38 calls copied correctly, Francis Donovan, W3LPL.

Marvin Smith, N6NA, received the book, *The Complete DX'er* for second place for copying 40 calls, and Dick Norton, N6AA, copied 42 calls out of the original 144 for first place. Dick's prize was a Bencher paddle.

Steve Locks, W6FRZ, of the Southern California DX Club, narrated a slide presentation of the club members' stations and antennas. It was a nice presentation, although it could have been shortened as it seemed like every member in the club made the screen.

Carl Henson, WB4ZNH, flew out from Atlanta to be with us at the convention. XYL Martha WN4FVU was scheduled to come also, but could not make it. Carl's presentation, DXpedition to TT8BC in 1983, was typical of most of the Henson presentations — very enjoyable.

Carl and Martha had their station set up in a school, ate at one hotel and stayed at another. After watching these slides and listening to Carl, DX'ers who worked the Hensons should appreciate what they went through to operate from those remote parts of the world.

An extra slide presentation then followed the Henson DXpedition presentation detailing a recent multi-multi operation of V30AA in Belize.

At the conclusion of the convention was the breakfast prize drawing — an ICOM IC745 transceiver. The lucky winner of this item was Calvin Lewis KR6Q.

Conclusion

Next year, the Northern California DX Club will host, although the date and location has not been decided yet. Several DX'ers feel that Visalia is not the best choice for several reasons, such as it is difficult to get to via public transportation, the facilities are no longer adequate for a convention of this size, and really . . . where is Visalia?

No matter where it will be held, DX'ers from all over will be attending. Judging from the various name tags, the convention is well supported by DX clubs. Included in this gathering were members from the San Diego DX Club, Southern California DX Club, Central California DX Club, Northern California DX Club, Redwood Empire DX Association, Western Washington DX Club, British Columbia DX Club, Central Arizona DX Association, Southeastern DX Club, Richardson Wireless Klub and the Yokohama DX Club, just to name a few. □

Carolina

(continued from page 1)

The meteorologist asked questions about the nature of the damage, was soon convinced that it was indeed a tornado, and at 7:01 p.m. issued a tornado warning, giving the residents of Bennettsville 14 minutes warning before their town felt the full fury of the storm, a warning that probably saved several lives.

The storm continued through Tatum, McColl and into North Carolina, where the toll was even greater than in South Carolina. The swath of destruction was in places as much as a mile wide, and it was total. As this is being written only a few days after the storm, the death total is 50, and bodies are still being found. Only rough estimates of the property damage are available, and all the insurance adjusters of the area are working overtime, and relief workers are still caring for the victims.

Path of tornado through the Carolinas, 28 March 1984

Those who saw the pictures on TV and in the newspapers, and who later saw the actual destruction, say the pictures simply do not do justice to the reality. The reality was far worse than the picture.

Fortunately, Amateur Radio was ready. Enough operators and equipment were available to provide needed communications for the public agencies and for volunteer relief services such as the Red Cross, and especially to provide intercommunication between these services until telephone service is restored.

In addition, amateurs have been handling large volumes of health and welfare traffic into and out of the storm area, without neglecting or interfering with the more important relief operations.

Thanks to a well-developed VHF operation in the States, traffic has been moving smoothly, fed into the NTS nets for the long haul where needed, and cleared promptly. In short, it has proved to be a textbook operation, and credit for the smooth operation must go to the preparation of the amateur community under the guidance of several recent Section Managers, as well as the present incumbents, and the dedicated Emergency Coordinators, who have made preparedness their number one priority.

As has been said, the work is still in progress as this is being written, so this is not and cannot be a definitive report. The operation is on so large a scale and involves so many people that a quite extensive report is called for, and is being prepared. □

VOA needs engineers

The Voice of America has new openings for its modernization of 10 overseas relay stations. Work on the projects is expected to last for some time as new stations are also scheduled for construction.

Current personnel needs are for HF and Medium Wave Systems Engineers, Computer Application Engineers, Acoustical Engineers, and for individuals with network operations and control experience.

To receive more information, send your resume to: Voice of America, Director of Engineering, P.O. Box 1625, Washington, D.C. 20013. □

STATION APPEARANCE

Congratulations this month go to Bob Fehr, K4HLT, of Chesterfield, Missouri. His modest but very neat station has made him this month's Station Appearance winner. Since he is already a lifetime subscriber to **Worldradio**, he's offered to donate the one-year subscription to the UMR Amateur Radio Club, W0EEE, University of Missouri-Rolla, in Rolla, Missouri.

"I was originally licensed as KN0DBN in November 1955," Bob writes. "I upgraded in April 1956 and until January 1972, I was K0DBN in St. Louis, Missouri. I moved to Pompano Beach, Florida in January 1972 and traded K0DBN for K4HLT. I returned to the St. Louis area in June 1978 and retained my K4 call.

My HF station consists of a Drake C Line: R-4C, T-4XC, MS-4 and MN-4. The antenna I use on 10, 15 and 20 meters is a Mini Products 4-band coaxial vertical that is hung horizontally from the ceiling in the master bedroom of my third floor apartment. I also have a Slinky antenna hanging in the same bedroom that I use on 40 meters (total length — 13 feet). For VHF, I use an ICOM IC-2AT.

I enjoy HF SSB DX'ing, ragchewing and contesting. And don't let anyone tell you DX'ing is impossible with such an "inadequate" station. My confirmed DX contacts using this "inadequate" set-up includes the following prefixes: C5, C31, CT, DK, EA, F, G, GI, GW, HC, I, J5, KA2, KH, KL, KV, LZ, OA, OK, SK, TF, UA, UK, UL, VE, VP2, VP9, YS, YU, ZF and ZL; and these are not from "list" or "net" operations. You don't need a full gallon and a 6-element tri-bander at 80 feet for DX'ing, but operating skills *are* the name of the game when you are not a "big gun"!

Awards and certificates I have accumulated over the past 28 years include DXCC, WAS, WAC, RCC and OTC. I hold life membership in ARRL and **Worldradio**. I am a member of the St. Louis Repeater Club and St. Louis Suburban ARC.

Some of my pet peeves are:

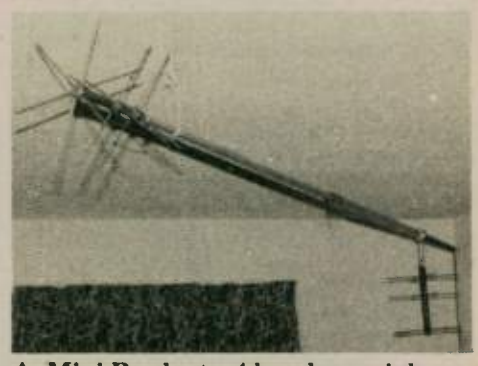
1) The FCC's constant attempt to "water down" Amateur Radio until it is reduced to the level of CB.

2) Receiving a standard S9 signal report irrespective of the actual metered signal strength. Let's face it. It will be an extremely rare occasion when my signal is S9 halfway around the world with 100 watts output to an indoor antenna.

3) Operators who keep trying to make me a portable 0. Until I upgrade from Advanced to Extra and get a new call or FCC again grants preferred calls (K0 xxx), I will be forever yours K4HLT, Chesterfield, Missouri.

As I stated in my original letter, since I am a life member of **Worldradio**, I would to donate the one-year subscription to the UMR Amateur Radio Club W0EEE, University of Missouri-Rolla, Rolla, MO 65401. □

Bob Fehr, K4HLT, sits at his award-winning station, at his QTH in Chesterfield, Missouri.



A Mini-Products 4-band coaxial vertical antenna is hung horizontally from Bob Fehr's ceiling.

Audio Expo '84

An exciting and very educational program is being made available this year to selected conventions and hamfests throughout the United States and Canada.

The program, entitled "Audio Expo '84" is presented by Bob Heil, K9EID, noted author, inventor, lecturer and the 1982 Dayton Hamvention "Amateur Radio operator of the year". Heil presented a small portion of this new program to nearly 12,000 amateurs during 1983 and has expanded his presentation for 1984.

"Audio Expo '84" is a one-hour program that is of interest to every Amateur Radio operator. Heil's unique presentation keeps the hour very entertaining and informative. His explanations and demonstrations are in simple terms so that everyone can easily understand and have a better knowledge of how and why audio can improve their signals. Ragchewers can enjoy better quality, VHF'ers will enjoy further dis-

tances, and the DX/contest operators will be shown how to increase their abilities in the pile-ups.

Here's a partial list of the topics that will be discussed and thoroughly demonstrated:

- Audio response — its importance for better communication
- Understanding the Fletcher-Munson response curve
- Live on-the-air demonstration of six popular microphones
- Audio equalization — the ups and downs of frequency response
- How to improve receiver intelligibility
- Phase distortion — the real killer in working DX
- Simple fixes for bad sounding microphones
- Ground loops and RFI protection

For more information, contact Heil Sound Limited, 2 Heil Dr., Marissa, IL 62257; (618) 295-3000. □

South American DX trip ends

04 April 1984

Dear Friends,

We have just concluded our operation as W6QL/CE0, Juan Fernandez Island, with 5,000 QSO's with radio amateurs in 120 countries, working all bands, half CW and half SSB.

Juan Fernandez is a rocky island with very high, steep mountains extending nearly straight up from the sea. The only airstrip is on top of one of these steep mountains, and only a very small plane can land there. After landing, there is a long walk to the sea where all equipment and persons must make a two-hour trip in a small boat on the open sea to the small village, where the only people on the island live. It is located on a small circular cove surrounded by steep mountains.

Our operation was from within this inlet. We had a reasonably clear shot to both Europe and the USA, with steep mountains blocking all the other directions. From a radio standpoint, it was the worst location we have ever operated from. The electric power to this small village is on only eight hours per day. The rest of the time, we tried our best to operate using a small generator that never seemed to work properly.

In addition, there was no gasoline readily available to buy on the island, and we had to rely upon obtaining a little here and there from various inhabitants.

There was no ship arrival or departure during our stay there. We had only brought a portion of our radio gear because the small aircraft would not allow the entire weight.

On the good side of things, we were fortunate to have along with us a Chilean radio amateur Celso Barros Vidaurre, CE3ACA. We would never have had a successful operation without him. He acted as our interpreter, radio repairman and generator repairman. In addition, he did one-third of the operating. We operated in the CQ-WPX SSB Contest as a multi-operator, multi-transmitter station.

At the end of our W6QL/CE0 operation, we returned to the USA with stop-overs to visit the major radio clubs in Uruguay and Argentina. We were in South America on our YASME DXpedition for a half year, from September 1983 to April 1984. We operated from nine countries, making a total of 55,000 QSO's.

All in all, it was a great experience, and we met many old friends and made some new ones.

During April 1984, we attended the DX meeting of the Northern and Southern California DX Clubs in Visalia, California, and are on the program for the Hamvention in Dayton, Ohio.

If any radio clubs would like us to appear at their clubs and show slides and give a talk, please write to the YASME Foundation.

LLOYD COLVIN, W6KG
IRIS COLVIN, W6QL □

Ohm-Brew

The winners of the June Ohm-Brew award are Tom Aughenbaugh, N6IXF, and his XYL, Kathy. They reside in Big Bear Lake, California. (The answer is on page 42.)

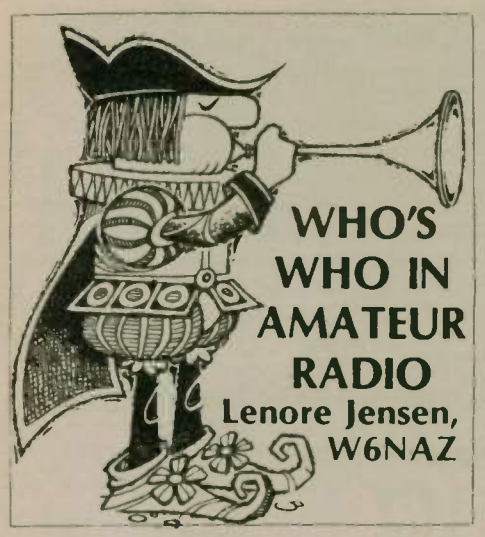
All entries should be neatly drawn on 3" × 5" cards, for easy handling. On the backs of the cards, print or type your name, address and call sign. Entries not used will not be acknowledged, due to the volume of entries received. □

Germany needs engineers

Systems Engineers — to work on Europe's most modern communications system. Openings are mid-level with Civil Service benefits. Salary range — (U.S.) $20,965-$39,519. Engineering experience desired: Digital Transmission; Digital Multiplexing; Software Development and Data Base Management; Networking and Control; Digital Voice Switching; Computer Communication and Packet Switching; and Satellite.

Send resume or completed SF-171 to: Defense Communications Agency, 8th St. and So. Courthouse Rd., Arlington, VA 20305. □

Pass it on . . . WORLDRADIO



There have been so many exciting and important adventures — and accomplishments — in the life of Amory "Bud" Waite, Jr., W2ZK, that it's impossible to select the finest. But at 82, from his retirement home in Venice, Florida, he can look back to 1912 as a ham and at more than 50 commendations for his work in the Arctic and Antarctic, including the Special Congressional Medal.

Let's skim through some. How about his originating the radio technique for measuring deep ice, a method now used by nine nations in sounding ice down to 14,000 feet thick! Bud also was the first to measure radio wave propagation through ice and the first to fly that new method, measuring as fast as the plane could fly.

This came about because of his spending 35 years of his busy life in polar expeditions, first having joined Admiral Richard E. Byrd's second to Little America II in 1933. That was just the first of 22 more Arctic and Antarctic expeditions.

He became radio operator and tractor operator and found himself in a highly dramatic (and dangerous) rescue of the Admiral, who had spent five months alone in a tiny shack under the ice 123 miles south of the base, where he was dying of carbon monoxide poisoning.

Bud and two others set out by tractor to traverse, in the pitch dark winter night, the trail marked only by red flags over and around crevasses. On the third attempt they made it! But only after going without food or sleep for 81 hours in that 72-degree-below-zero cold. Then, they had to remain in the cramped quarters for two months until the rising sun finally provided sufficient light for a plane to land and carry the Admiral back to Little America. The others inched back by tractor later.

But there, at the Advanced Base, Bud was able to operate the southernmost radio station of the time: KFY.

Throughout his life he's been an avid Amateur Radio operator and has countless stories of exciting radio exploits. Once, as a Flag Radio Operator for the Atlantic Fleet, it was his job to relay from his Admiral the instructions to Billy Mitchell to bomb a captured German battleship. The successful sinking proved that airpower would become vital to the Navy — starting our present air capability!

Another time, he was in contact with a cargo vessel, 400 miles away, whose captain was in dire need of an appendectomy. Bud relayed from the Navy doctor the complete instructions. The captain was saved via catgut from a ukulele, whiskey for anesthesia and a razor blade for surgery!

Having graduated from the famed Lowell Institute of M.I.T., Bud performed an amazing number of engineering assignments. For instance, he put electric and radio gear in eight subs, two cruisers and into the first big carrier, *USS Lexington*.

Amory "Bud" Waite Jr., W2ZK, during his Antarctic years.

He pioneered in TV in 1929-30 in Boston, becoming associated with the famous Hollis Baird, then Chief Engineer of the Shortwave and TV Corporation. Bud and Loyd Sigmon — now W6LQ — built four transmitters (using lessons learned from early, early Amateur Radio) to deliver pictures and sound, and even the first 5-meter operation in Boston.

"People would line up for a block outside waiting to get into our studio to get their faces on the air," he remembers. "Our 48 and 60-line pictures were good!"

He also helped build the first State Police Radio station in Massachusetts, in 1927, with the late Mark McAdam, W1ZK, whom his present call remembers.

Early in WW II, he was involved in the Signal Corps' original design of coaxial cables and connectors; he got the first patent on a waterproof connector for military vehicles "that saw 80,000 copies made and shipped to North Africa." His work with that Antenna Design Group of the Signal Corps set the standards for coax cables and came up with "the grandfathers" of most vehicular whip-type antennas used today.

One antenna he worked on was the *five-mile* ELF unit on 6,000 feet of ice in Greenland in the '60s; also both horizontal and vertical VHF rhombics.

In 1943, Bud was part of a small team which designed and produced the first multi-channel VHF FM radio relay systems. He and W2VC took the first of these to England for the D-Day invasion of Normandy.

"We kept those first vital multi-channel telephone circuits from France to the London Headquarters for the first 38 days, and then installed over 100 radio-relay circuits across France. Eventually, we had *thousands* installed all over Europe and the Pacific Theatre and were busier than you-know-what keeping them working.'

In later years, 14 atomic bomb tests found Bud busily working on associated projects from Nevada to Bikini to Johnston Island. He helped design a remote-controlled system for driving vehicles into radioactive areas. Also, he helped build remote control systems for firing atomic weapons, a fact now unclassified.

Other adventures: Surviving a typhoon in Hong Kong harbor in 1929 and an explosion in the ship engine room . . . Organizing the International Experiments on Glacial Sounding on the Greenland Ice Cap . . . Winning the Atlantic Fleet Swimming Championship in 1922 . . . Helping send all the radio traffic to Byrd on McMillan's Expedition of 1925 . . .

Later, 1933, being "stuck in pack ice 10 feet above the ship rails for three long days" . . . Being received by President Roosevelt . . . Having Admiral Byrd as a very close friend . . . Inventing, with a partner, an ice-breaking sub that would come apart in four segments for getting oil out of the Arctic much cheaper than the pipe line (see *Popular Mechanics*, March 1970) . . .

Going to Luzon when MacArthur invaded and putting in circuits to mountain top relays . . . Flying home in a B-17 alone with Tyrone Power "and enjoying every minute" . . . Studying radio propagation everywhere, especially through and over ice for the first time ever . . . Helping dig out the old huts of explorers Scott and Shackelton . . .etc. . .etc. . .etc!

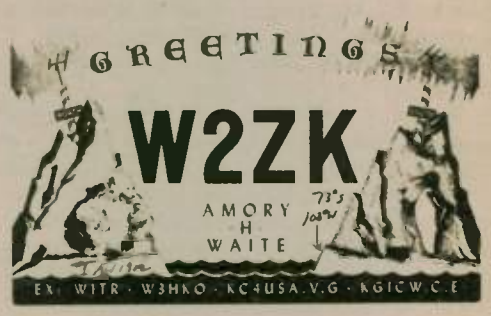
When the Tall Ships came to New York, he took part in the radio network — and, at age 75, fell and broke his hip putting up an antenna. Even though needing crutches, he still can swim and scuba dive for fossils (being an amateur geologist and archaeologist in his spare time).

Bud's worldwide travels have enabled him to operate ham radio in exotic spots, having held a flock of different calls since that early, early one: 1AW (sound familiar? They were his initials; 1912-17).

Among the QSL cards he has used is the outstanding KC4USA, favorite of so many patchers from Little America. Bud then was coordinator of the U.S. Army Signal Corps Arctic/Antarctic Research Teams ('46-64) and was greatly involved with the IGY (International Geophysical Year).

A "calling card" is from WHEW, the station aboard the barkentine, *Bear of Oakland*, on which he was Chief Op during that Byrd Expedition II, a trip which provided high drama, rough seas, ice galore and — for him — a time of shoveling coal in hot, humid tropical seas. (He's escaped death 18 different times.)

As a skilled writer and lecturer, Bud Waite carried the word of the Byrd expeditions to more than two million people by giving over 3,400 illustrated talks. (Read the Admiral's book, *Alone!!*, to learn more about Bud; also *Discovery* and the histories of the Signal Corps in WW II.)



Evidence of the high regard in which he is held: maps of Antarctica show two spots in his honor — Cape Waite and the Waite Islands, near 73°S 103°W.

Among his honors, too, count the Veteran Wireless Operators Association Award of the Marconi Gold Medal; the Bronze Star from President Truman for radio work in France as a civilian in combat; and the highest award America can give its civilian servants: the gold, the Exceptional Meritorious Award for Civilian Service (1961).

Bud's collection from his polar and other activities have been given to various museums and archives. His large collection of antique radio parts will go to the Antique Wireless Association in Holcomb, New York. The list of prestigious organizations to which he belongs is far too long to print here.

In fact, the lifetime accomplishments of Amory Waite, Jr., would require a complete book. Perhaps you'll be lucky to QSO W2ZK. Ask him to tell you about some of those other experiences.

Amateur Radio has been truly honored by his presence! □

The Sport of Contesting

Yuri Blanarovich, VE3BMV

supposed to be a technical, experimenter's hobby. True, some people are in it because of the magic of communicating over great distances, but this is not an excuse to have a signal like a garbage truck without cover, driving it 100 mph on the highway and spreading the stuff all over.

If you buy that wonder-rig, do not assume it is perfect! Check it, test it, listen to your signal on another receiver, or get someone to give you a critical report on the quality of the signal. Early models of Yaesu FT-102 had terrible clicks on CW.

Another source of bad CW signals is that people assume the drive setting or level does not make much difference on CW signals. Not true. CW signals can overdrive your amplifier stages and create excessive clicks and harmonics.

Set the drive just below the point where there is no more increase in power with increased setting of your drive control. Find out the proper settings for the compressor. Get someone to check your intelligibility — and no splatters. Mark the settings and be aware of the line voltage fluctuations; that can change things (did in old Drake twins).

There are several stations on the air that you can't understand. They are so "compressed" that they sound like "mashed potatoes". Next time we talk to one like that, don't give him 5-9; give him 3-9 or 2-9 or even 1-9. That's what the first digit is there for — it is readability!

The propagation effects can also play

Gradual deterioration

There was once an article in QST describing how you can boil the frog, without the frog knowing or feeling it. The idea is that we are like the frog, in that when we are exposed to the gradual change in temperature (or anything), we start losing perception of what is happening, and can easily run into problems without knowing it.

We can see the examples around us, whether on TV with violence or in our own backyard — on our bands. We see our numbers increasing, while the space available on our bands remains pretty well the same. The technology is giving us digitally blinking marvels that make things easier, and the equipment is getting better and better, but our brains are getting zapped by the RF.

We are self-policing (or supposed to be), so let's try to maintain sanity. Let's start with ourselves. This is valid for all areas of our hobby, from DX'ers and contesters all the way to Novices.

How do we look from the other side? We are representing our country on the international airwaves. Even if one does not say his call sign, his accent usually tells if he is a W, YV or I.

The latest example is BY operation of VE7BC. He works for about seven years trying to restore the Amateur Radio in China. He fires up the first operation on phone, has some government officials listening with their own pairs of headphones and what do they hear? A zoo — garbage! Is that what the hobby is supposed to be? Looks more like international cursing media! This happened many times before, when some of the devoted tried to activate the country and get the "natives" to operate on their own.

What can we do? Let's start with ourselves, and I appeal to leading DX'ers and contesters along with everyone else. Let's be aware that we are heard all over the world, and let's be representatives of our countries and cultures. The whole idea behind international friendship and good will would be lost if we had to have the government police us with direction-finders and A-teams! If you know of an "animal" in your neighborhood, try to get him back on track by telling him politely or writing him a note. Maybe it is time to start writing about this stuff and mentioning the calls in the magazines?

Our signals — our picture

On the technical side of things, the most important thing to us should not be the strength of our signals, but the quality. This becomes especially important in the contests, where we have high density of stations fighting for weak signals.

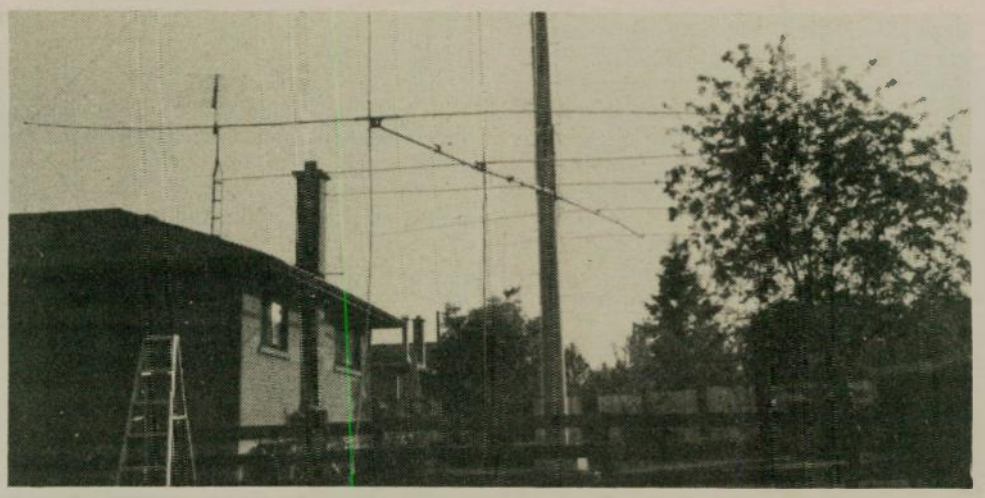
With the influx of commercial radios, we tend to become more like appliance operators. We should not be ignorant in technical aspects of our hobby; it is

havoc with our signals. There is a Doppler shift on signals (see VE3BMV article on propagation in June 1980 CQ Magazine) which tends to make our signals sound bassy and hollow. This, combined with heavy compression, makes it just about unreadable. When you notice signals like that, turn back compression and put as many heights into your speech as possible. There is a good chance the same propagation effects are distorting our signals. On CW we have to slow down to avoid smearing and blending of signals.

Another source of bad-sounding signals is an amplifier overdrive. If one runs 150W of drive into an SB220 amplifier, that makes things messy. Apparent increase seen on the power meter is not necessarily in the desirable signal, but it can go into the splatter, harmonics, etc. A good contest amplifier would run somewhere around 80 percent of its maximum power. It gives a clean signal, makes tubes last longer, and makes everybody on the band happy. It also gives a sharp picture of the proud owner of the clean signal.

So let's give an accurate report to the other station we are working. He might not be aware of it, and we will help him and ourselves by "cleaning up" our bands.

I had a problem recently in the CQ WW Phone contest. Being the proud owner of a TS-930 with super Fox Tango filters, I found myself in a dilemma. The FT filters are very sharp and narrow — 2.1 kHz. The "problem" is that they narrow the transmit signal, too. So you have nice narrow signals and guys with "garbage truck" signals get close to you. You don't bother them, but they bother you.



Sure looks bigger than the house! VE3BMV's RAZOR beam for 20 meters on the way down. Three quad and two Yagi elements on a 62 ft. boom helped to set new Canadian monoband records and No. 1 in the world on 20-meter CW in the CQ WW DX Contest 1982. Now, something unsightly will go up for the 40-meter band to make some more corrections to the Canadian monoband records, or — who knows — maybe even the world? The 40-meter stuff will have to be assembled on the tower. The lot is only 46 ft. wide, but there is lots of room "up there".

When I told one LZ — who was 10 kHz each side — that he was splattering, he came back and told me to get a better receiver! It left me speechless. I thought I had the best that is on today's market. He just QRZ'd his way through the rest of the contest.

Should I use 6 kHz-wide filters for transmit to keep him away next time? If more of us tell it the way it is, maybe it will help to clean the messy signals and make things more pleasant.

We have to be careful and be able to distinguish between our receiver overload (and/or noise blanker ON) and splatter. If one uses an old Hammarlund HQ — something with no filters — then everybody is wide. So let's be clean. Know how our signal is and use the true meaning of the signal report!

As far as contesters go, we have a tool to cure the bad signals. As far as I know, most of the countries have regulations prescribing the quality of SSB and CW signals — i.e., its width. If there is a station that is as wide as a barn door and he does not react to requests to fix his signal during the contest, he could be disqualified for violating the licensing rules of his country or contest. (Time to put a clause about signal quality into the contest rules?) A number of contest committee members are active during the contest and could make a report or recommendation to give a warning, or where "deserved", disqualify.

So let's not get "boiled". Let's wake up and keep our contesting and hobby clean. Let's be a shining example and not a "garbage truck"!

Clean signals combined with gentlemanly conduct will make us real "radio knights" on the bands and bring good people into the hobby, rather than poisoning and turning off those who are already in it.

We applaud the decision of the FCC not to abolish Morse code requirements. If one wants the privilege to operate and join the fraternity of those who treasure this privilege, he has to work for it, and then he will enjoy it more. If an 11-year-old girl can pass the exams for the highest class of U.S. license, why can't Ph.D.'s in electronics do the same? Otherwise, there is the "wonderful" world of CB, and we don't want that. One is enough! Have you checked our 10-meter band lately? They are creeping up! □

Train your dog!

Yes, you can train your dog with it. Or you can swat mosquitos. Just look how versatile it is — you can get a campfire going with it and also line a birdcage.

What else has so many varied uses? For example: it can wrap fish and also be made into a fireplace log. Pretty terrific, huh? You can use it to mask paint jobs or shield the sun from your eyes. Marvelous!

Just think about it. You could turn it into a kite and then put it at the bottom of the kitty litter box. Use it as fan during Field Day and then turn it into a glider.

Fantastic!

Pack glassware with it or use it for insulation. It can clean your windshield and spank your children. Use it to level a table.

Look at all the things you can do with it, and at such a low price. Think of it; you could use it as a napkin, for collages and many other uses.

And best of all, you could read it. Yes, look at all that **Worldradio** can do for you. Just see page 9. □

•••••

Check your license expiration date.

ARRL

(continued from page 1)

rected to sign, on behalf of the ARRL, an agreement between the ARRL and the FCC Field Operations Bureau to establish an amateur auxiliary to provide volunteer amateur assistance in on-the-air monitoring activities.

Second, the League will file a motion with the FCC to expedite the expansion of the telephony sub-bands at 75, 15 and 10 meters.

The Board approved adoption of a new constitution for the International Amateur Radio Union (IARU). (Ratification of the new constitution is currently being voted on by the IARU member-societies.)

A final selection of submissions in the Special Service Club (SSC) logo competition was made, with Jeff Duquette, K1BE, turning in the winning design. Runners-up were Roy Blackshear, KH6BAI; Mike Bokulich, K8US; N6JSV; and Mike Lowden, N9CRA.

Funding was approved for an Amateur Radio booth at the 1984 World's Fair in New Orleans, Louisiana.

A cooperative agreement between the QCWA and the ARRL was ratified. Endorsements for RTTY DXCC will be available, beginning 01 August 1984, for contacts made on or after 15 November 1945.

Questions on the legality, propriety of use and suitability for QST advertising of simplex autopatches will be addressed by a study of the Executive Committee.

Atlanta, Georgia was chosen as the site for the 1987 ARRL National Convention.

The complete minutes and a Board Meeting article appeared in the May 1984 issue of QST. □

THE STANDARD OF EXCELLENCE

The world of CW, RTTY, and new DUAL AMTOR is as close as your fingertips with the new brilliantly innovative state-of-the-art microcomputer controlled* **EXL-5000E.**

Automatic Sender/Receiver: Due to the most up to date computer technology, just a console and keyboard can accomplish complete automatic send/receive of Morse Code (CW), Baudot Code (RTTY), ASCII Code (RTTY) and new ARQ/FEC (AMTOR).
Code: Morse (CW includes Kana), Baudot (RTTY), ASCII (RTTY), JIS (RTTY), ARQ/FEC (AMTOR).
Characters: Alphabet, Figures, Symbols, Special Characters, Kana.
Built-in Monitor: 5" high resolution, delayed persistence green monitor — provides sharp clear image with no jiggle or jitter even under fluorescent lighting. Also has a provision for composite video signal output.
Time Clock: Displays Month, Date, Hour and Minute on the screen.
Time/Transmission/Receiving Feature: The built-in timer enables completely automatic TX/RX without operator's attendance.
Selcal (Selective Calling) System: With this feature, the unit only receives messages following a preset code. Built-in Demodulator for High Performance: Newly designed high speed RTTY demodulator has receiving capability of as fast as 300 Baud. Three-step shifts select either 170Hz, 425Hz or 850Hz shift with manual fine tune control of space channel for odd shifts. HIGH (Mark Frequency 2125Hz)/LOW (Mark Frequency 1275Hz) tone pair select. Mark only or Space only copy capability for selective fading. ARQ/FEC features incorporated.
Crystal Controlled AFSK Modulator: A transceiver without FSK function can transmit in RTTY mode by utilizing the high stability crystal-controlled modulator controlled by the computer.
Photocoupler CW, FSK Keyer built-in: Very high voltage, high current photocoupler keyer is provided for CW, FSK keying.
Convenient ASCII Key Arrangement: The keyboard layout is ASCII arrangement with function keys. Automatic insertion of LTR/FIG code makes operation a breeze.
Battery Back-up Memory: Data in the battery back-up memory, covering 72 characters x 7 channels and 24 characters x 8 channels, is retained even when the external power source is removed. Messages can be recalled from a keyboard instruction and some particular channels can be read out continuously. You can write messages into any channel while receiving.
Large Capacity Display Memory: Covers up to 1,280 characters. Screen Format contains 40 characters x 16 lines x 2 pages.
Screen Display Type-Ahead Buffer Memory: A 160-character buffer memory is displayed on the lower part of the screen. The characters move to the left erasing one by one as soon as they are transmitted. Messages can be written during the receiving state for transmission with battery back-up memory or SEND function.
Function Display System: Each function (mode, channel number, speed, etc.) is displayed on the screen.
Printer Interface: Centronics Para Compatible interface enables easy connection of a low-cost dot printer for hard copy.
Wide Range of Transmitting and Receiving: Morse Code transmitting speed can be set from the keyboard at any rate between 5-100 WPM (every word per minute). AUTOTRACK on receive. For communication in Baudot and ASCII Codes, rate is variable by a keyboard instruction between 12-300 Baud when using RTTY Modem and between 12-600 Baud when using TTL level. The variable speed feature makes the unit ideal for amateur, business and commercial use.
Pre-load Function: The buffer memory can store the messages written from the keyboard instead of sending them immediately. The stored messages can be sent with a keyboard command.
"RUB-OUT" Function: You can correct mistakes while writing messages in the buffer memory. Misspellings can also be erased while the information is still in the buffer memory.
Automatic CR/LF: While transmitting, CR/LF automatically sent every 64, 72 or 80 characters.
WORD MODE operation: Characters can be transmitted by word groupings, not every character, from the buffer memory with keyboard instruction.
LINE MODE operation: Characters can be transmitted by line groupings from the buffer memory.
WORD-WRAP-AROUND operation: In receive mode, WORD-WRAP-AROUND prevents the last word of the line from splitting in two and makes the screen easily read.
"ECHO" Function: With a keyboard instruction, received data can be read and sent out at the same time. This function enables a cassette tape recorder to be used as a back-up memory, and a system can be created just like telex which uses paper tape.
Cursor Control Function: Full cursor control (up/down, left/right) is available from the keyboard. Test Message Function: "RY" and "QBF" test messages can be repeated with this function.
MARK-AND-BREAK (SPACE-AND-BREAK) System: Either mark or space tone can be used to copy RTTY.
Variable CW weights: For CW transmission, weights (ratio of dot to dash) can be changed within the limits of 1:3-1:6.
Audio Monitor Circuit: A built-in audio monitor circuit with an automatic transmit/receive switch enables checking of the transmitting and receiving state. In receive mode, it is possible to check the output of the mark filter, the space filter and AGC amplifier prior to the filters.

CW Practice Function: The unit reads data from the hand key and displays the characters on the screen. CW keying output circuit works according to the key operation.
CW Random Generator: Output of CW random signal can be used as CW reading practice. **Bargraph LED Meter for Tuning:** Tuning of CW and RTTY is very easy with the bargraph LED meter. In addition, provision has been made for attachment of an oscilloscope to aid tuning.
Built-in AC/DC: Power supply is switchable as required; 100-120 VAC; 220-240 VAC/ 50/60Hz + 13.8VDC.
Color: Light grey with dark grey trim — matches most current transceivers. **Dimensions:** 363(W) x 121(H) x 351(D) mm: Terminal Unit.
Warranty: One Year Limited

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DX WORLD

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

Activities Calendar

26-27 May	CQ World Wide WPX Contest (CW)
09-10 June	GACW World Wide South America Contest (CW)
16-17 June	JARL All Asia Contest (SSB)
07-08 July	Venezuelan Contest (SSB)
14-15 July	IARU Radiosport
14-21 July	CORA Tiurai
28-29 July	Venezuelan Contest (CW)
11-12 August	DARC European DX Contest (CW)
25-26 August	JARL All Asia Contest (CW)
08-09 September	DARC European DX Contest (SSB)
13-14 October	PPC Rio DX Party (CW)

W-100-N

Applications for **Worldradio's** Worked 100 Nations Award this month include:

230. **KO1R** **Joseph Krakol**
231. **KA6JDH** **Robert T. Lay**

In the next couple of months, we will print the rules and the list of Nations that will apply for this award.

1984 Clipperton Expedition (by Kip Edwards, W6SZN)

By now, you have all probably heard that the 1984 expedition to Clipperton Island did not make it to the island. Because of the worldwide interest in this expedition, I am writing to inform the DX community of exactly what happened.

First, some background information. Planning and organization of this expedition began over two years ago. Once the landing permission and license were obtained, the effort necessary for a 14-operator, six-transmitter multi-national expedition became almost a full-time job. Literally thousands of hours and dollars were spent by the operators to insure a safe and successful operation.

In early November, we signed the charter contract for the *Svanen*, a 90 ft. sailboat. The boat was then in Venezuela, leaving it more than sufficient time to arrive at Acapulco for the March 5 departure.

At the end of January, we learned that the *Svanen* had encountered serious engine trouble and would not be able to make the trip. As a result of this news, our charter agent began an intensive search in Mexico for an alternative boat.

In mid-February, we located the *Black Eyes*, a 92 ft. steel-hulled schooner. The boat was then in Panama and we were assured that it could arrive in Manzanillo by 05 March. Based on these assurances, DJ9ZB, F6GXB, F9XL, FO8IW, FO8HL and FO8GW left their respective countries and arrived in California 01-03 March.

On 02 March, we learned that *Black Eyes* had been delayed by a few days, but was expected to arrive in Manzanillo on 10 or 11 March. We delayed our departure from California for a few days and left for Manzanillo on 08 March, arriving that night.

After making arrangements in Manzanillo to obtain the last remaining items for the expedition, we began the long wait for *Black Eyes*. The boat had not been in communication with the charter agent (or anyone else) for several days, and we were left to guess when it might arrive.

On 12 March, with no news about *Black Eyes*, we began our search for alternatives. Over the next six days, we scoured the Mexican coastline for suitable boats, but none was found. We had numerous meetings with the Mexican military, with representatives of Productos Pesqueros Mexicanos — a state-owned fishing fleet, and with owners or skippers of private boats, but suitable arrangements could not be made. The six days were an emotional roller coaster for the operators, as one boat after another initially appeared suitable and available and then fell through.

On 14 March, we learned that *Black Eyes* was about 200 miles south of Acapulco (550 miles from Manzanillo), becalmed and with a busted engine. On 16 March, Stanislaw Wisniewski, FO8IW, and Wilber Trafton, FO8GW, flew to Mexico City to discuss the matter with officials of the French Embassy and with members of the Mexican ARC.

They returned on 17 March with news of our last chance: a 120 ft. motor sailer named *Sara Lee* that was supposedly located somewhere about 75 km north of Manzanillo. Six of us piled into a small car and spent the day searching every bay from Manzanillo to a point about 100 km north. No boat was found. With no other alternative, we returned to California on 18 March, bitterly disappointed.

Even before leaving Manzanillo, we began discussing another expedition to Clipperton. Those discussions are continuing and details will be distributed to the DX community as they are worked out. We will be writing individually to those who contributed to the expedition, offering the full refund of each contribution.

Here is the Clipperton Island DXpedition team, assembled on 08 March at the San Francisco (California) Airport. From left to right: Kip Edwards, W6SZN; Wayne Mills, N7NG; Bill Zachman, W6TPH; Jim Hicks, KK6X; Franz Langner, DJ9ZB; Jacques Calvo, F6GXB; Jean Joveneau, F9LX; and Stanislaw Wisniewski, FO8IW. Bottom row: Lyle Meek, N6BLN; Wilber Trafton, FO8GW; Richard Ley, FO8HL; Rusty Epps, W6OAT; and Bob Vallio, W6RGG. I'm sure many DX'ers were disappointed that the team never got to the island, and I can imagine the frustrations the team must have gone through waiting to sail, which never happened — not to mention the expense. ***(Photo courtesy of Gordon Girton, W6NLG, via the Southern California DX Club)***

While we hope that those who contributed will elect to leave their contributions in the Clipperton fund for the next attempt, we have no guarantees at this time that there will be another expedition, at least in the near future. The Clipperton expedition operators wish to express their sincere appreciation to all who supported our efforts.

Papua New Guinea (P29)

Much activity has been reported from this one, most of the activity during the hours most of us are in the sack. This country was formed back in 1975 with the merger of the former Australian holdings, Papua Territory and the Territory of New Guinea.

These active PNG stations include P29FG, who has been found on 20 meters SSB near 14.200 MHz after 1400 UTC. This station has also been reported near the same frequency at 0400 and 0700 UTC. Also on this band P29GB has been reported on 14.218 MHz at 1200 UTC.

On 15 meters, look for P29JM, who has been worked on 21.291 MHz after 2000 UTC; on 10 meters, P29NPL has been reported on 28.513 MHz at 0100 UTC.

P29KY offers 40-meter activity for the deserving and can be found near 7.005 MHz from 1100 UTC, and has also been on 80 meters on 3.506 MHz after 1400 UTC.

Several other calls have also been reported by European stations that include P29AF on 21.268 MHz at 1230 UTC and 14.137 MHz at 0900 UTC, P29BR on 14.028 MHz at 0800 UTC, P29NBC on 28.181 MHz at 1000 UTC, P29PR on 3.507 MHz at 2000 UTC and 14.020 MHz at 0900 UTC, and P29SO on 28.514 MHz at 1030 UTC.

Iraq (YI1)

The only station from this country is YI1BGD, and it has been active every day except Friday. They are mostly active on 20 meters SSB between 14.200 and 14.230 from 0400 to 1200 UTC. The *Long Island DX Bulletin* reports that on Wednesday and Sunday they operated on 15 meters between 21.290 and 21.320 MHz from 1400 to 1700 UTC. The station should also be active on 40 and 80 meters by the time you read this.

Other frequencies and times the station has been reported include 21.206 MHz at 1100 UTC, 28.520 MHz at 1215 UTC and 3.501 MHz at 2230 UTC. These last three reports are European reports.

Lord Howe Island (VK9L)

Amateur Radio Action ('DX Notes', Tony Gilbert, VK3CE) reports that Lord Howe Island has been assigned the call sign series VK9LA to VK9LZ. Stations from Australia will no longer be signing their calls appended with "LH". This was instigated by the Down Under DX'ers Contest Club.

Laccadive Islands (VU7)

The QSL cards from the second VU7WCY operation should have all been distributed by now. (Mine was mailed from Ohio.) Gopal VU2GDG stated that

the cards had a better chance of reaching you if they were mailed outside of India. It seems that the cost of postage to mail a card outside of India would be a tempting item for the dishonest to pilfer and cash in on.

Gopal would like to know if you received your QSL card, so if you run across him on the air, let him know. Kurt Heidergott, K7UU, president of the Western Washington DX Club, adds some additional notes where it might be a good idea to let Gopal know how smooth the operation ran. Gopal intends to use this information to convince government authorities to grant a license for an Andaman Island DXpedition sometime in the future.

But please, no complaints to the fact that you sent a "green stamp" and your QSL card was mailed from stateside costing only 20 cents. You got your card didn't you?

Gabon (TR8)

Look for TR8DR, who has been reported several times. This station has been active both on CW and SSB. On CW, look for him on 14.010 MHz after 2400 UTC, 21.020 MHz after 2100 UTC, and 28.020 MHz around 1700 UTC. On SSB, check 28.516 MHz after 2100 UTC.

Three other stations have also been reported, which include TR8SJC on 7.044 MHz at 2000 UTC working Europeans, TR8IG on 7.005 MHz from 2300 UTC, and TR8JLD on 14.011 MHz after 0100 UTC, as well as 3.502 MHz from 0100 UTC.

Gabon is western Africa's second largest crude oil producer and is highly dependent on the petroleum industry. Gabon, with an area about the size of Colorado and 75 to 85 percent of its interior covered by forest, has an estimated population of 1.3 million. They have the highest per-capita income — $3,680 — in black Africa.

Beautifying the shack is Jo Akers, ZS2W, Al's XYL. ***(Photo courtesy of Dave Church, WA2HZR)***

Cameroon (TJ1)

We have reports for at least three stations found on the bands from this African country of Cameroon. Look for Lee TJ1AF, who has been found regularly near 21.290 MHz from 2100 UTC, TJ1MK on 14.127 MHz around 1745 UTC working Europeans, and TJ1QS on 14.020 MHz at 0630 UTC and 7.001 MHz at 0500 UTC.

Spratly Islands (1S)

Now that the ARRL will accept QSL cards for the recent 1S1CK operation, the chances are good for continued DXpeditions to that group, as the Philippine government makes claim to the island group — along with a few other governments. By the time you read this, Chito Kintanar, DU1CK, will have completed another DXpedition to the Spratly group, using the call 1S2CK.

China (BY)

The North American DXpedition to China led by Tom Wong, VE7BC; Chip Margelli, K7JA, and his XYL Janet WA7WMB; and Fred Hammond, VE3HC, handed out many SSB contacts to DX'ers needing this one on phone. During the evening of 26 March (27 March UTC), we sat in our shack listening to Tom operating from BY4AA, working his fellow DX'ers from Vancouver. We just sat there and kind of wished we were a VE7. What was most enjoyable was listening to his own station in Burnaby, which was activated for the benefit of his XYL Alice, so she could talk to her husband. One problem she had was with their swimming pool, which Tom solved for her. Interesting it is — here is Tom in Shanghai, Red China, discussing luxury items such as a swimming pool with his wife back home in Canada.

Tom didn't spend the whole night discussing swimming pools with Alice and working local Vancouver friends on his frequency. Back to normal DX'ing and split frequency, he made many DX'ers happy that evening. Me too.

Kermadec Island (ZL8)

A lot of DX'ers flipped the end of March. If it wasn't Tom Wong and his team to China, or the ZK1XL DXpedition to the North Cook Islands, it was the highly successful Kermadec Islands DXpedition. The group consisted of four operators — ZL1AMO, ZL1BQD, ZL1AAS and ZL0AJW — using their own calls with their own suffixes with the ZL8 prefix, (except for ZL0AJW, where it was ZL0AJW/8).

During their stay, their boat was sunk offshore during a storm. They initially thought they would be there for an extended stay, but no need to worry as they had plenty of food and fuel for the generator. But then they hitched a ride on a passing ship and ended the operation 25 March.

They must have really filled the need for this one. I came across Warwick ZL8AFH one Sunday afternoon in early April on 10 meters and there were very few takers.

Operation Ciskei

Dave Church, WA2HZR, submitted the following article written by Al Akers, ZS2U, about his operation from one of the new South African homelands.

"Al ZS2U and Jo ZS2W spent some time with their son in a post office construction camp in Alice, from the 24th of December 1981, to the 2nd of January 1982. Al helped to put the Ciskei on the map by working some 126 stations. Operation was almost exclusively CW. The rig used was a Yaesu FT7B, (100 watts input).

"Two antennas were used — a trap dipole for 40, 20 and 10 meters at 27 feet, and a groundplane for 15 meters at 24 feet. Alice, and particularly the camp, is unfortunately in a hollow, which was a bit of a handicap. The call used was ZS2W/S4. Contacts included 30 countries on all six continents."

Dave WA2HZR also went on a DXpedition to Ciskei, and is in the process of making up an article on his December 1983 operation as S42HZR.

3V8 activity

The *DX News Sheet* reports that the Italian national Amateur Radio society has received a letter from the Tunisian Ministry of Communications, which claimed that apart from a few temporary licenses, the Amateur Radio service in Tunisia has been suspended since 1958. As of November 1983, only 3V8PS is a genuine call.

Other points included in the letter were that no TS8 prefix calls have been issued in that country, and the operators of the calls 3V8AA and 3V8JYC do not have official licenses. The letter requests that the Italian society contact the QSL managers of these stations in order "to stop these violations of international regulation which reflect badly on Amateur Radio."

Quote of the month

"The big gun snags a good one on 75 meters and makes a contact. At this point he immediately suggests that the station QSY to, say, 160 meters so he can get a new one on that band. Result:

Propagation

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

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

You can get a free *complete* set of these predictions for both high and low angle antennas, Maximum Usable Frequency (MUF) and Frequency of Optimum Transmission (FOT). Requests should be sent to Bill Welsh, W6LS, 2814 Empire, Burbank, CA 91504. Each request should be accompanied by a self-addressed stamped (54¢) envelope at least 9" × 11½".

JULY 1984

UTC	AFRI	ASIA	OCEA	EURO	SO AM
0100	15.4	20.2	25.7	15.0	21.1
0200	13.5	20.5	25.4	14.3	21.1
0300	13.3	21.4	25.5	14.9	19.9
0400	17.1	21.5	25.6	15.1	18.4
0500	17.1	20.3	24.7	14.6	17.0
0600	15.3	18.7	22.5	14.7	15.4
0700	13.6	18.0	19.9	13.7	13.1
0800	11.9	17.8	17.3	13.6	11.5
0900	10.8	17.1	15.1	11.8	11.9
1000	10.7	15.7	13.6	12.2	14.8
1100	11.4	14.5	13.1	12.5	14.6
1200	12.8	13.8	13.0	13.5	15.0
1300	14.6	13.9	13.0	15.2	17.1
1400	16.2	15.0	13.2	17.1	19.5
1500	17.3	17.2	13.8	18.5	20.3
1600	17.6	17.4	13.9	18.8	19.9
1700	17.8	17.1	13.0	18.9	20.1
1800	18.2	17.1	12.0	19.3	21.9
1900	18.6	17.8	12.8	19.8	23.8
2000	18.7	19.6	16.0	20.0	24.7
2100	18.7	21.6	20.0	19.7	24.7
2200	18.6	21.8	23.2	18.7	23.4
2300	17.7	21.5	25.0	17.6	21.3
2400	16.9	20.8	25.7	16.8	20.6

you don't get to work anything. I'm keeping a list of these selfish turkeys for my next trip to Bouvet — then I'll show em!"

Credit for the above quotes goes to Steve Gecewicz, K0CS, Secretary of the Kansas City DX Club, which Steve calls a New 75-Meter DX Trend.

Another viewpoint on lists

Bob Truhlar, W9LNQ, a regular contributor to our DX column, responds to my comments concerning list operations in recent issues of **Worldradio.**

Bob writes, "I am not really that uptight on DX per se (being on the Honor Roll, etc.), but we have to understand the guy running 100 watts and a dipole and the DXer's preference, (possibly due to the rude treatment accorded him by the avid DX'er).

"Some of the little cliches I have noted in the past years is that when a DX station is trying to operate alone and attempting to make some order out of the chaos is that three-quarters of the stations calling are deaf. (What a great opportunity for a hearing aid salesman.) That is, when he calls for a W1, everybody calls, or when he calls for a specific station with the letters 'GM' everybody calls. So what happens? He QRT's and nobody wins.

"Another little item, make a phone call to a ham in the DX'ers area, set up skeds, etc. These, together with the sophisticated 2-meter DX nets that are set up, leaves the little guy out in the cold. So, John, I have to give those little fellas that run the nets a bit of credit for taking their time to allow many other hams their share of DX and I can't believe it's a so-called ego trip."

Bob also sent us some additional news clippings in support of list operations, which claim that the anti-list types have: 1) big expensive antennas, 2) mountain or beach locations, 3) East Coast houses, or not quite as good West Coast houses, and 4) spent at least $4,000 on DX-related equipment.

Thanks for your views, Bob, but my comments still hold. I am not completely against lists, as they do have their place at times. I don't have a super station here. All my equipment consists of is an ICOM IC-740 running about 100 watts and an old TH6DXX. On 40 and 80 meters I use dipoles.

I may offend a lot of so-called DX'ers, but most who chase DX via lists are downright lazy. And many of those list types are not running low power, either. This seems to be the general attitude today, as in everything else. Everyone wants to be at the top right away with the least amount of effort. There is more to getting on the Honor Roll than having big beams and a kilowatt. It takes skill — and that, my friends is something you don't learn overnight. You will never learn it working DX from a list.

In a couple of months I will include some interesting facts compiled by Bradley Wells, KR7L, of the Western Washington DX Club. Look for it this summer.

Tiurai 1984

Mark your calendars for Tiurai, 14-21 July. Tiurai — sponsored by CORA, the Radio Club of French Polynesia — coincides with the French Bastille Day activities. Special certificates will be awarded for working a required number of stations operating from French Polynesia plus a trophy for the station who works the most. More information on this one will follow in two months.

All Asia Contest

The JARL has announced the winners for the CW portion of last August's All Asia contest. Entries were quite numerous and only the North American certificate winners are listed below. The order goes: band, contacts, multipliers and total score.

HI8LC	M	31	25	775
HP1AC	M	90	59	5,310
KL7AN	14.0	24	19	456
OX3OA	M	128	54	6,912
VE1BNN	14.0	63	35	2,205
VX1AW	14.0	92	44	4,048
W7QID	1.9	6	3	18
N6RO	3.5	300	41	12,300
W7DRA	3.5	10	5	50
W6OWQ	7.0	440	61	26,840
N7AM	7.0	230	54	12,420
K1XM	7.0	51	24	1,479
W6SZN	14.0	381	66	25,146
K1KI	14.0	199	54	10,746
N4MM	14.0	160	51	8,160
KO7G	14.0	140	40	5,600
WB9MSV	14.0	110	37	4,070
K3TW	14.0	100	35	3,500
W8EX	14.0	41	27	1,647
WA0TKJ	14.0	50	25	1,250
W5TVX	14.0	64	4	256
K4RZ	21.0	158	41	6,478
K6OMB	21.0	128	38	4,864
K5BDX	21.0	107	34	3,638
N0CKC	21.0	22	17	374
WA2LWT	21.0	7	7	49
N6QR	M	1266	210	265,860
NI6W	M	1074	194	208,356
K6XT	M	948	203	192,444
KB7G	M	747	178	132,966
W3GM	M	346	114	39,444
W1RM	M	359	108	38,772
N5JB	M	326	107	34,882
W8UVZ	M	269	102	27,438
W3VT/4	M	168	74	12,432
K9BG	M	164	62	10,168
K0OST	M	75	41	3,075
KA2BBZ	M	34	23	782
W0RSG	Mop	737	160	117,920
KW2J	Mop	37	24	888

Of course, there were many stations who had higher scores than those who received certificates, but winning a certificate was a function of call area and score.

This year's event, the 25th All Asian DX Contest, will be held the weekend of 16-17 June for SSB, and 25-26 August for CW.

European DX Contest

Another interesting DX contest is the European DX Contest, sponsored by the Deutscher ARC, the West German national society. In this contest, one can collect additional points by transmitting QTC's, which contain information of previous contacts other than the station to which you are forwarding the information. Transmitting these QTC's is a good test of your operating skills. There are three different European DX contests this season: CW in August, SSB in September and RTTY in November.

Antique QSL Department

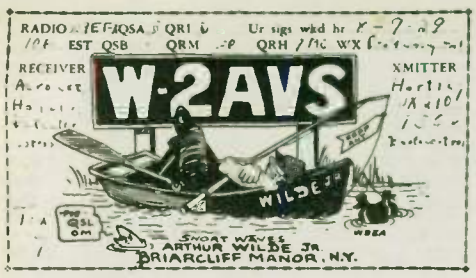
Fred Seifert, W5FS, sent us an interesting note in regard to my comments concerning the original holder of the call W8EA. (See my column for April 1984, page 24, and March 1984, page 25.) Fred writes, "As the enclosed QSL's show, the W8EA of early days was Otto Eppers of Clearfield, Pennsylvania (at that time, Western Pennsylvania was in the 8th call area).

"If I remember correctly, Otto also had some of his ham cartoons printed in QST or one of the other ham radio publications of the 1920's and 1930's. However, I can't verify, as my copies are long gone.

"Surprisingly, Otto's personal QSL employed none of his art work, although his writing on the QSL displays an artistic flair."

Many thanks, Fred, for taking the time to research the original holder of W8EA. Although the following are not DX QSL cards, they are classified as "antique" as they date back to 1929. Fred was operating as W9EFX in Milwaukee at the time. It only cost a penny to mail a QSL card in those days.

Also, notice that the W2AVS QSL has that personal touch of the cartoonist. It was designed especially for Art Wilde, the operator of W2AVS. Lots of QSL



cards around with cartoons today, but most are not personalized.

Fred wasn't the only reader to respond on our W8EA confusion. Don Klingler, W3KBR, adds an interesting note regarding Otto and says, "Otto was originally from Brooklyn, New York, and his claim to fame was his jump off the Brooklyn Bridge and lived to tell about it, Hi. Otto was the cartoonist for Uncle Dave's Radio Shack of Albany. Uncle Dave was the 'original' Radio Shack and was known by all hams in the eastern United States."

You might be interested in this letter from Otto Geyer, the present holder of W8EA, who writes, "He later became W2EA and worked for Harrison Radio and was one of the charter members of QCWA. Mr. Eppers also designed the QCWA emblem as shown on *QCWA News*." Otto, the present Otto of the present W8EA that is, first became licensed in 1924 with the call 8CBI, then in the early 1930's, became W8LEA. Then in 1972, since he held the Extra Class ticket and had been licensed for over 25 years, he was able to obtain the call W8EA. Otto says, "In other words, the FCC knocked the 'L' out of my call."

I hope we've set the record straight. Otto Eppers was the holder of the original W8EA and the cartoonist, and Otto Geyer is the present holder of that call and has held the call since 1972.

QSL routes

AH3AA/KH9	—W1ISD	LA5DW/OY	—LA5VAA
BY1PK	—VE7BC *(See Note 1)*	LA5VAA/OY	—LA5VAA
		N8DCJ/8P6	—KZ8Y
BY4AA	—VE7BC *(See Note 1)*	OD5OA	—F0DDA
		R1Z	—UK1ZAA
C30LAZ	EA3DDP	T26FE	—DL4BC
CE8ABF	—LU8DPM	T15MRC	—VE3MR
CP6HK	—WB4LFM	TI9WI	—TI2J
CP6IF	—WB4LFM	TJ1AF	—WA4VDE
CP6JX	—DK3HL	TL8YD	—F6FYD
CQ1BWY	—WD4HRO	TU73	—AK3F
CQ1OF	—WA3HUP	VE7BBC/KH8	—VE7CXN
CQ0LN	—CT1LN	VP2VEB	—W0DVZ
CS0AAW	—CT1AAW	VP9KA	—W1BPM
CS0BI	—CT4UW	VQ9AC	—KA3EDN
CS0CJC	—CT4FU	VS6KR	—W6XR
CT0BI	—CT4NH	XE2FU	—K5RK
CX6CK	—WA1BXP	YU3KI/5N0	—YU3KI
FB8WJ	—W4FRU *(See Note 2)*	ZF2AH	—N6ADI
		ZF2FL	—N6RJ
FB8YK	—F6EMY	ZF2GW	—W2HPF
FG0BKZ/FS7	—F6AJA	ZK1DC	—3D2ES
FG0IHU/FS7	—F6EYS	ZL7OY	—VK3DW
FK8CE	—K2ROR	ZL8AFH	—ZL3AFH *(See Note 3)*
FK0AQ	—F2BS	ZL8AMO	—ZL1AMO
FO8JP	—W1BBD	ZL8BQD	—ZL1BQD
GB4ANT	—G4ANT	ZL0AJW/8	—ZL1BQD
H44R	—H44DX	ZM7VU	—F6DYG
HC1OT	—W2KF	ZP5LET	—ZP5CVE
HR1DAP	—K8CC	3D2DX	—VE5RA
HR5SB/2	—WB0MZB	3V8PS	—IN3RZY
HP1XXO	—WB5HXO	3X4Z	—W4LZZ
JT1BR	—Bureau	5V7NG	—WB4LFM
K9KU/HP1	—N9AVY	5W1EJ	—W0WP
KC6HA	—K6EDV	5Z4ED	—JH6FMU
KG9N/C6A	—KG9N	7P8CL	—SM5DGA
KK7K/DU2	—WB7NOB	9X5WP	—WB6VKD
KR4C/PJ7	—KR4C	9Y4XX	—N6MM
KX6LA	—WB4PRU	9Y5DK	—N4BPP
KZ8Y/8P6	—KZ8Y	9Y50LL	—K2QIE

AH9AB —Kniss, P.O. Box 248, Wake Island 96898
CP1GH —P.O. Box 5968, La Paz, BOLIVIA
EA8ADP —P.O. Box 2187, Las Palmas, Canary Islands, SPAIN
ET3PS —P.O. Box 6128, Addis Ababba, ETHIOPIA
FM7CX —P.O. Box 604, Fort de France, MARTINIQUE
HP1XGL —APO 1120, Miami, FL 34002
OY8R —P.O. Box 343, Torshaven 3800, FAROE ISLANDS

Notes

1. Contacts made with BY1PK and BY4AA during the recent DXpedition by the "Big Cookie" may be sent to Tom Wong, VE7BC, 220 North Grosvenor Avenue, Burnaby, BC, CANADA V5B 1J4. This applies for SSB contacts only. It costs 37 cents to return your QSL card to the U.S. from Burnaby, so be sure to include enough funds.

2. Only contacts made with FB8WJ by U.S. amateurs are handled by W4FRU; all others should send their QSL requests via F8RV.

3. The street address for ZL3AFH should read 168 MacKenzie Avenue.

Contributors this month include W9LNQ, W5FS, W3BBL, WA2HZR, W8EA, W3KBR, WB6GFJ, Deutscher ARC (DARC), Japan Amateur Radio League (JARL), Kansas City DX Club, Redwood Empire DX Association, Northern California DX Club, Southern California DX Club, Western Washington DX Club, *Span* (Standard Oil Company of Indiana), *Amateur Radio Action*, *The Long Island DX Bulletin*, *DX News Sheet* and *The DX Bulletin*.

In addition to **Worldradio** having a booth at the National Convention in New York City, we will also be at the Michigan State Convention in Livonia. If you attend either of the conventions, stop by the booth and say hello. Very 73, de John, N6JM. □

New 80M beacon

Look for a new 80-meter beacon on 3559 kHz. The 25 watt CW signal will be from Robert Baillargeon, VE3MPG, in Ottawa from 0400 to 0730 hours and between 1900 and midnight, EST.
— *Canadian Amateur Radio Federation* □

West Virginia hamfests and convention

The dates for the annual West Virginia State ARRL Convention and hamfest this year are Saturday, 30 June, and Sunday, 01 July. For years, the convention/hamfest at Jackson's Mill, near Weston, has been "the first full weekend in July," but this year is different.

The 1984 Wheeling, West Virginia Hamfest will be on Sunday, 22 July.

The West Virginia Fone Net (WVFN) has decided to remain on 3990 kHz. The net meets nightly at 2300 UTC. □

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AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

Amateur Radio in space seems to be a recurring theme in current discussions of "Where do we go from here?" in the future of amateur satellite and space communications.

Tony England, W0ORE — an astronaut, scheduled to fly in the shuttle later this year — has indicated an intention to operate Amateur Radio from space if he can obtain permission from NASA. It is expected that this will be in the Shuttle 51B carrying Spacelab III. England would also like to add to the 2-meter operation which Dr. Owen Garriott, W5LFL, engaged in, and include a 10-meter transceiver. W5LFL feels a 10-meter communicator would give worldwide coverage from almost any spot in orbit.

Another plan for the proposed ham in space activity is to automate the 2-meter system to permit unattended operation when the astronaut "ham" is busy with other duties. Some of the plans suggest a beacon operation or a completely automated two-way station. If a beacon mode is used, it could be so as to solicit SWL reports.

In his discussions following his STS-9 operation, W5LFL suggested that an antenna outside the shuttle, perhaps in the cargo bay, would improve the downlink signal. The connectors are available to coax lines in the cargo bay.

Oddly enough, Spacelab II will fly later than Spacelab III. Another "ham in space" may fly on that mission in March 1985. An astronaut in the ESA Spacelab crew from the Netherlands is expected to seek permission from NASA to operate from space in the same manner as Dr. Owen Garriot did.

Another interesting story heard by this correspondent was that a group of well-heeled DX'ers are collecting funds for a geostationary amateur satellite repeater, which they hope to launch at the group's expense in the not too distant future. From what we hear, the satellite is to include a PL access for the sponsoring group's own use.

Another development in this area is that a Florida-based satellite communications group has proposed to permit one transponder in its planned geostationary communications satellite to be set aside exclusively for use as an amateur repeater in the sky.

AMSAT has reported it has plans for future PACSAT activities. Also in the works is the Phase IIIC, for which a launch opportunity is being sought. The ESA launch which had recently been planned to carry Phase IIIC will not be able to do so. The shuttle is one future possibility as a launch vehicle. Discussions are underway in this area.

Harry Janeda, JA1ANG, has been given material by AMSAT regarding the U.S. FCC formalities which are to be met for amateur satellites. Harry will carry these back to Japan as guidelines for the Japanese equivalent of the FCC to follow in their approval procedures for the forthcoming JAS-1 Amateur satellite.

Reports of increased signal strength from AMSAT/OSCAR-10 are being widely received. Could it be that the slowing down of activity on the satellite is bringing with it less reduction in the signal passband due to excessive power from uplink signals? Remember that higher power transmissions into the satellite receiver reduce the overall downlink power so that lower powered signals are overwhelmed.

A/O-10 Mode L is active two hours before apogee and two hours after apogee on QRP days (Mondays).

As this is being written, no new activity is reported on UO-11. SRI's 150 ft. dish is to be tried. Several unsuccessful attempts have been reported using the huge Jodrell Bank antenna in England.

The following is a report from Martin Sweeting received by G3AAJ on 31 March:

UOSAT-2 Status Report/30 March 1984

I have spent the last few days up here at Jodrell Bank Radio Telescope on the 85 ft. antenna with a crossed-dipole feed on 145 MHz, listening for anything emanating from UOSAT-2 — both within a narrow 2.5 kHz bandwidth and ± 100 kHz wideband.

The receiver and antenna system have been checked using UOSAT-1, the sun and Cassiopeia, and appear to be performing well. We have probably got the best UOSAT-1 data we are ever likely to see! The UOSAT-1 signal was peaking +75dB above the minimum discernible signal level here, so I feel we should be able to hear something if UOSAT-2 is radiating anything on the nominal frequency. The wide-band signal performance is about 20-30dB worse.

We also tracked OSCAR-10 and received a good signal from out at 42,000km with the 145.810 MHz beacon peaking at +55dB above noise - the passband noise was also detectable at some 10-15dB above the RX noise. Some good SSB signals were also copied.

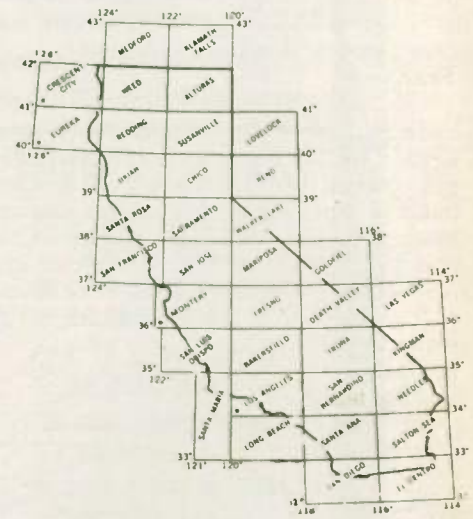
We tracked UOSAT-2 last Thursday evening and Friday morning passes without anything detected at all that can be relied on; there were two bursts of carrier on the noise level, each of about 10 seconds duration, but these could not be identified positively and were most probably from other amateur activities.

We shall continue with further tests on tonight's pass (Friday) and, unless anything interesting is heard, shall then head home to Surrey and have a council of war. We do have access to this facility until Thursday next week.

Roger and Neville have remained at Surrey to carry out command functions whilst the listening tests are carried out at Jodrell.

•

AMSAT has a contest underway to reward contacts or SWL reports of contacts through the AO-10 satellite. The user making the greatest number of contacts, each in a different grid square area, will receive an award. For detailed information, contact AMSAT, P.O. Box 27, Washington, D.C. 20044.



Grid square map of California *(from U.S. Geological Survey)*

A grid square is an area 2 degrees in longitude by 1 degree in latitude. It is the dimension you will find on a real estate plat map. The maximum number of such grid squares is 19,440. But you can be sure not every one of the grid squares has an amateur station in it. Good luck!

If you have a moonbounce type of antenna with a lot of gain, you may be of great help to the AMSAT/UK crew at University of Surrey, England. With such equipment you may be able to track AMSAT/UK's UOSAT-2 on 145.825.

As you may have noted, UOSAT-2 (UO-11) is on the same beacon frequency as UO-9, so don't confuse the two if you are able to track the satellites and do receive any signals from UO-11. Should you do so, Ron Broadbent, G3AAJ, at AMSAT UK London, E12 5EQ ENGLAND. ☐

Midwest convention

More than 500 people from Nebraska, Iowa, Missouri and Kansas — as well as other locations across the country — gathered at the Holiday Inn at Kearney, Nebraska the weekend of 31 March-01 April, for the Midwest Amateur Radio Convention. It was the first time the Midwest convention had been held in a city the size of Kearney.

The local 30-member radio club — Midway ARC — hosted the convention, which was held in Sioux City, Iowa last year. Midway ARC's first convention, held seven years ago, drew 75 people. *— Information from Kearney Daily Hub; submitted by Keith Erickson, KØGNW* ☐

TEACHER

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

(Part II)

This is the second of a four-part series on how our Fall 1983 educational program was developed and implemented.

Teachers

Now comes the worst part of my job as the organizer of the ham classes. I have already mailed out a questionnaire to all past instructors. I have asked them to indicate what class they would like to teach this year. I promise I will never do this again. None of them ever respond. No one ever calls to volunteer to help. I've realized that the instructors must enjoy tormenting me or they just enjoy me calling them up every year, begging them to teach a ham class.

I'm tired of calling up 30 guys to get two or four to say yes. In the future, I've promised myself to use only the volunteers who take the time to call me up and say, "Sure Alan, I'll be glad to teach a Novice class." Yes, no more begging and pleading for teachers.

This year has not been any different. Six amateurs made a commitment to help out, only three meant it. By now, I should know the pattern. The result is that the Advanced and Extra Class gets cancelled three weeks prior to class starting — hopefully to be postponed until the winter snow melts, when someone volunteers to teach it.

Of course, you probably can guess this one. Two days after I cancel the Advanced and Extra class, I get a call from a potential instructor. Although there are 10 disappointed students, I convince him to wait till the springtime to help us out.

Timing

Class timing is critical. Here in New England, our summer months are very precious. They are spent at the beaches, in our boats, and recreating in general. Our winter season can bring brutal driving conditions, so you don't want classes held during the tough, winter months. When you add the Thanksgiving and Christmas holidays to that, it doesn't leave much time to sneak in a few 10-week Amateur Radio courses.

I try to start the first session of classes the last week in September or the first week in October and end up just before Christmas. This leaves the dead of winter free. The springtime class fits in between the end of winter and the start of our boating season — maybe early March to middle of May.

This year's Novice class will finish up sooner than expected. The class and instructor decided to meet two nights — Tuesdays and Thursdays — to speed up the learning process. As the class is a big one (over 30 students), everyone should be able to learn all the Novice material in about six weeks.

Rooms

As soon as public school opened, I contacted the rental agent to arrange for the use of the same rooms as last year. As the high school has agreed to let us use a small utility closet for our station area, some dialogue revolves around this room. Getting permission to use the rooms is really very simple; it's just a matter of signing a lease agreement for 10 weeks. We agree not to make a mess, and they agree not to charge us any money.

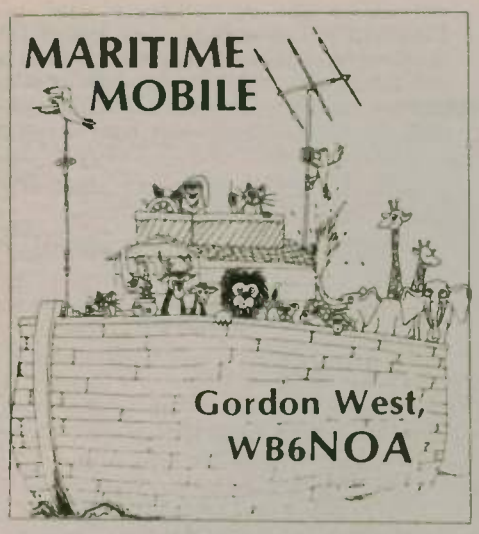
The rental agent at the school superintendent's office implied it would be in our best interest to use the room our station was to be located in as much as possible in the daytime, besides the Thursday night of class. It seemed that space is at a premium, and many had asked why the room was vacant during the past summer months.

Our club is lucky to have a member who works at the school as the head of the audio-visual department. He was instrumental in securing the new station room for us. Over the summer, he installed both a Morgain Dipole and a Ringo Ranger for the station's use. He and I discussed the situation and decided that, if possible, we would have to have the low-band station manned during the school day.

A daytime program was developing, and I wasn't prepared for it. A few quick calls on the repeater, and no one volunteered to come over to operate the station. We asked for help on the weekly net for two weeks, with no response. We might just have to give up the station room.

One morning at work, a customer came in to buy a rare part for his ladder, and I waited on him. I didn't know the customer was a ham till he said I could bring the part to the first night of class.

(*please turn to page 38*)



The legal alternative

This month, let's talk about a subject that is an illegal top secret — converting the Kenwood 430 and the Yaesu 757 over to marine transmit frequencies. We all know it's taboo, but nonetheless, most mariners would like to make this modification so they can use their new ham set on marine frequencies.

Technically, the operation is easy. On the Kenwood, you squash two diodes that unlock the transmitter section to transmit on any frequency between 2 and 30 MHz. On the Yaesu set, it's easier — locate the secret slide switch and "click", you are in.

So why doesn't the FCC make ham radios legal on marine frequencies, you ask? They seem to work just as well, don't they? You bet they do.

However, ham sets may not have the harmonic suppression, stability and general transmitted signal "cleanliness" that the FCC demands before type-accepting a transceiver to be operated on marine frequencies. (Part 83).

"We wouldn't begin to consider putting one of our ham radios through type-acceptance procedures for the limited marine single sideband market," comments one Amateur Radio manufacturer. "It takes thousands of dollars and a thousand headaches to get a piece of gear through the testing procedure — and the market just isn't there," adds our manufacturer.

It's not that your unlocked ham radio will transmit anywhere that the FCC objects to. New synthesized, type-accepted marine single sideband sets will transmit anywhere, too. It's just that the unit does not carry the Part 83 type-acceptance, and is legally not allowed on marine frequencies, except in an emergency.

Can the monitoring office tell whether or not you are on a marine SSB set or a ham radio on the marine channels? Probably not, if you dial up each frequency carefully. The ham sets sound exactly the same as an authorized marine SSB set.

A better idea

Instead of trying to bootleg an Amateur Radio on marine frequencies and driving yourself crazy trying to painfully dial in those duplex telephone channels, why not consider a quality marine SSB set and use it on ham frequencies?

That's right, there are over 10 type-accepted marine single sideband sets that are fully synthesized that will work quite well and quite legally on both marine single sideband channels and on any ham frequencies. With this type of equipment, instead of having to laboriously spin the dial to change marine channels, you can instantly tune into any marine channel by its channel number or by the actual frequency. This will save you some real needed time in an emergency.

This marine set works on ham SSB frequencies.

Most marine sets also have a single sideband automatic antenna tuner that automatically resonates your antenna system on any frequency you may dial up. No knobs to twiddle, no low-power tune-up procedures; just change frequencies, say one syllable, and you are on the air with over 100 watts.

By the way, most marine SSB sets have wonderful transmit audio processing. Quite regularly, someone will think you're running the Collins S Line! The receive audio is also pleasing, and sensitivity and selectivity are as good as, if not better than, most ham sets.

Raytheon's RAY 1285 SSB Marine Radiotelephone, which also works on ham frequencies.

As you probably know, all marine frequencies are upper sideband. They use no lower sideband channels. Marine SSB sets all have the capability of working lower sideband on 40 and 80 meters ham if you simply ask for the LSB modification when you purchase the unit.

Tuning across the ham frequencies is almost as easy as using a regular ham set with a big VFO tuning knob. On some marine sets, you keyboard enter the ham frequencies. Other marine SSB sets allow you to advance up or down through the frequencies in 1 kHz steps. Don't get shook up — 1 kHz stepping is not all that bad in being able to tune in on a ham signal and zero beat it.

Yes, the sets are indeed more expensive than regular ham sets bootlegged on marine frequencies. However, open up the covers and gaze upon plug-in circuit boards with gold-plated contacts, precision-engineered wiring harnesses and individually shielded RF compartments. Of course, the new sets are all solid-state, and usually deliver a healthy 140 watts *output*. They generally use transistors that will deliver at least one-and-a quarter times the power of conventional ham sets.

Finally, the new marine sets that can be used on ham frequencies are built to take the rugged marine wet weather environment.

So the choice is yours — you may operate illegally on marine frequencies with a ham set, or do it up right and operate the more expensive marine SSB on both marine and ham frequencies very legally. Something to think about.

Incidentally, ICOM has just introduced a Part 83 type-accepted marine SSB set, model M700, that works quite nicely on ham frequencies, too — and it's not much more expensive than their top-of-the-line, ham-only equipment.

Maritime nets

Several net control operators echoed my exact sentiments about abusing the phone patch system that we talked about last month. They agree that a phone patch a day on the same net on a yearly basis is simply asking too much when the patchers don't offer any other interest in their ham radio than just making a phone call.

Maritime mobile nets have been developed to keep amateurs in touch with each other as they sail across the waters and to provide assistance to other amateurs in their general vicinity. Maritime amateur operators who only use the nets to make phone calls and don't hang around long enough to see whether or not they can help out at their distant end are not welcome in my book.

If you passed your ham test and bought Amateur Radio equipment just to make phone calls on a free-of-charge basis through the ham maritime mobile network, and don't actively pursue all of the other communication areas of operating maritime mobile through a maritime net, then why don't you go buy yourself a marine single sideband and take your quasi-business phone call traffic on to some other airwaves?

If you are indeed interested in participating in a maritime mobile net, other than just making phone calls, try giving the net control operator local weather conditions, the number of American

The KMC 95R with KMC 95 HF SSB, from KING, which works on ham frequencies, too

boats in your particular harbor, and offer to relay messages to vessels in your area that might not be tuned in or have ham radio onboard.

In other words, get truly involved with the net and bear some of the responsibility we all share to keep our Amateur Radio maritime mobile nets on the air.

15-meter Pacific Maritime Net

Chairman of this net is Bill Donohue, W6SYQ; Mike W6CRD, Vice Chairman; and net manager Odia Howe, KH6CO. Here is their report on how this worldwide net operates, from Bill Donohue:

The net has grown over these past seven-plus years and presently consists of approximately 129 active MM check-ins, 42 regular base station check-ins and 145 inactive MM's. The net caters primarily to MM's, the Pacific Islands and Alaska. The majority of the MM check-ins are in Region 2 and 3 of the Pacific Ocean, although we do get a few check-ins from the Gulf of California (Sea of Cortez), the Caribbean and Region 2 in the Atlantic.

When MM's check in to the PMN, we always get their location and/or their position report, the reason being that inasmuch as we are a Public Service Net, we feel it is to the interest of safety of life and property not only to that individual but to any others nearby who may be in need of help.

When responding to the NCS call for MM check-ins, the NCS only wants the call sign of the MM and their region, upon recognizing the MM check-in, the NCS (or a designated relay) will first ask for their position, their status (are they OK, need any advice or what have you), and do they have any traffic, and if so, where is it bound. Once the aforementioned have been resolved, the NCS will have the MM move off the net frequency to handle any traffic with the base station that is most practical to handle that traffic.

Due to a variety of reasons, there is a number of MM's who have traffic for the same place everyday. In cases such as this, we encourage that particular individual to make arrangements for a ham in or near that place to meet him/her on the net frequency to handle their traffic. Many of the MM's on the PMN do just that. The reason for this is that it just isn't fair to the other MM's on the net to have an avenue of traffic tied up everyday by one or two individuals. As stated on page 4 of the Guidelines/and PMN Operating Procedures (last paragraph), there are some locales that handle a preponderance of traffic for MM's because of the fact they are located in densely populated areas. *Give the other MM's a chance to have their traffic taken care of.*

One other thing that some individuals do is take a base station off the net and involve them in a half-hour to ¾-hour PP. This practice just isn't fair to another MM that is waiting to get into that area. We request that all PP's be kept under the 10 minute time frame, and in most cases you can handle everything you want in five minutes. *Give the other MM's a chance to have their traffic taken care of.*

When an individual lists traffic for a particular station or place and you happen to hear that station or place check-in, don't barge in and try to move that station off the net. The NCS will get to you in a few moments, and besides, there may be traffic listed for that station that you are unaware of, or there may be some other MM that has been listed for that station or place prior to the time you checked. The net is a Directed Net. Let the NCS handle the routing of all traffic. *Give the other MM's a chance to have their traffic taken care of.*

When NCS has reason to believe that an *EMERGENCY* exists on or near the net frequency, he/she shall suspend all net operations not directly involved in the *EMERGENCY*. NCS or his designated base station will control the net frequency until said *EMERGENCY* is resolved. Any station MM or otherwise shall remain on the frequency and monitor in case the NCS has need of their services. See pages 6, 7 and 8. *Give the other MM who has an EMERGENCY the chance to have his/her EMERGENCY TRAFFIC handled in the manner you would expect your EMERGENCY TRAFFIC handled.*

I heartily congratulate the hard-working net operators, as well as those mariners who actively participate in the net in traffic handling, position reporting, relays and assistance to fellow mariners. There really is a lot more to maritime mobile nets than simply using them as your private telephone booth. □

Santa Cruz students look to future

Gina Keating and Jennifer Johnson

An incredible variety of accomplishments has been achieved by Del Mar Middle School's 8th grade science class during the 1983-84 school year. Our class is taught by faculty member Gary Frederick, who will soon acquire his Novice license, and by Mary Duffield, WA6KFA, a retired Santa Cruz high school teacher. We have 12 new Novices waiting eagerly for their licenses to come in the mail.

Since our fame has spread, we have been asked to make many presentations of our radio skills and our Planetary Citizen activities to different organizations, including Loma Prieta High School, the Santa Cruz Blind Club and the Santa Cruz Women's Club.

The University of California at Santa Cruz has singled out the Del Mar school program for special events, interfacing their networking through their Peace Satellite terminal, with our ham station. The class also has access to an Atari 800 computer, and Kantronics is helping us to learn how to interface our station with the computer.

We are deeply grateful to the wonderful amateurs who have helped us so much. Ben Deovlet, W6FDU, has donated many radios, which he has restored to top shape, enabling our new Novices to take home some equipment for their own stations. These include: Gene Piety, KH6PP; Phil Hensley, W9OYO; Hal Barton, W6ZZD; Phil Maslin, N6GKE; Susann Tracy, W6OCV; Al Johnson, W6RPL.

Many electronic messages will utilize an oceanic mailbox when we sail out in Duffield's and Frederick's sailboats and toss a bottle with our "message in a bottle," into the Pacific Ocean. We've made these cassette tapes telling how we feel about co-creating our future, plus many interviews of students we've talked to via the radio, asking them about how *they* would like to change the future.

We plan to put our station and our skills at the service of our community for sending traffic, for emergency situations, etc.

Our class has exchanged tapes with many other schools, worldwide. When we heard about how poor the schools in Nicaragua were, we collected dictionaries, readers, pens, toys, etc. to send to them. W6FDU has donated a suitable Amateur Radio receiver so the kids in Jalapa, Nicaragua can listen to us and be learning about Amateur Radio.

We just received a tape from students in New Zealand in answer to our tape, full of exciting ideas about how kids being friends around the world can help world tensions by solving their conflicts non-violently. Last year, we were visited by a boy from Milan, Italy, who showed us a pledge he had asked his schoolmates to sign, promising never to take a job that would bring harm to anyone anywhere in the world.

One of our school contacts in Hong Kong is planning to come sailing with us this summer. An 11-year-old girl from Helsinki says, "I wish everyone in the world would have a crystal ball so they could see what wonderful things my generation is going to bring the world."

Well, this is just a summary of all the things we are doing. We want to keep skeds with schools everywhere. Our class meets weekdays from 1720 UTC to 1800 UTC. But often 40 meters and 15 meters (our two best bands) are not as open as we'd like them to be, so we plan to keep skeds during our lunch periods, Monday and Wednesday, from 12:30 to 13:00 PST. We'll be calling "CQ schools", signing WA6KFA, or ?, depending upon the control operator. □

QUARTER CENTURY WIRELESS ASSOCIATION INC.

Esther Given, W6BDE

A major concern in our society today is the dropout syndrome. It is distressing when young people reject educational advantages and drop out of school. Businesses suffer loss of customers, churches lose communicants, publishers lose subscribers and organizations lose members.

From the dropout's point of view, there are myriad reasons or excuses: apathy, disinterest, displeasure, indifference, monetary limitations or, most common of all, unintentional forgetfulness.

Whatever the excuse and no matter how justified it seems at the time, the dropout creates a headache for every level of business and society. Leaders ask themselves: "How did we fail?", "Where did we go wrong?", and most importantly, "What can we do to reverse this negative reaction?" They respond by planning ingenious ways to regain students, customers, congregations, subscribers or members and hold their allegiance.

QCWA and its chapters suffer from the dropout syndrome too. In its 27 years of existence, QCWA International has enrolled over 17,500 members. In that time, many have become Silent Keys, but there are former members who — for whatever reasons — have faded into oblivion. Like all other organizations facing this problem, QCWA's officers and directors are constantly upgrading and restructuring programs, activities and goals which will further the purposes of the organization.

QCWA dropouts are encouraged to consider the advantages of rejoining. QCWA offers friendship, cooperation, a wealth of knowledge and recall of many years of experience in the development and growth of electronic arts. Now is the time to "drop out" of the state of delinquency and return to the QCWA family. QCWA Headquarters, 1409 Cooper Dr., Irving, TX 75061 looks forward to welcoming reinstating members.

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QCWA welcomes Hernando Chapter, #148. Centered in Brooksville, Hernando County, Florida, the new chapter will serve QCWA members in the Gulf Coast area, about 40 miles north of Tampa. Twenty members signed the charter, which became effective 01 March 1984.

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A recent migration to the realm of Silent Keys has been reported by the German Chapter 106 of QCWA. Hans Schleifenbaum, DL1YA, organizer, founder and charter member of that chapter, had suffered for 25 years from Bechterew disease, an illness involving curvature of the spine and spinal cord.

Hans was first licensed in 1933 as D4KQF and held countless awards. In recent years, he had collected early day Amateur Radio equipment to be displayed for public interest and enjoyment. Hans was considered not only the spark plug but the motor of QCWA's first overseas chapter, which at his death boasted a membership of over 200 representing 11 European countries.

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The QCWA Silent Key Memorial Scholarship Fund recently received a generous donation exceeding $5,000 in memory of Robert Cresap, W9LRI. The gift was made by his widow, Lavinia Cresap, and provides funding in full for a perpetual scholarship to be awarded annually in her husband's name.

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NOTE: Readers are reminded that QCWA awards and certificates mentioned in previous articles in this column are available only to members of QCWA.

VISIT YOUR LOCAL RADIO CLUB.

ARIZONA

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

Amador County Amateur Radio Club
P.O. Box 1094, Pine Grove, CA 95665, Pioneer Elementary School, Pioneer, CA • 1st Thurs/monthly 7:30 p.m.
WA6WIY Rptr. — 146.835, 146.235.
Net Tues. 7:30 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
164 W. Hillcrest Drive
Thousand Oaks, CA
1st Thursday/monthly — 8:00 p.m.

Electronic Museum ARC
Foothills College, Los Altos
Last Monday/monthly - 7:30 p.m.
(except January and December)

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

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

Livermore Amateur Radio Klub
3508 Gresham Ct., Pleasanton, CA 94566
Meets: Valley Memorial Hospital
Multi-purpose room, Livermore, CA
2nd Saturday/monthly - 9:30 a.m.

Sacramento Amateur Radio Club, Inc.
Contact: Norm Nelson, KA6YRC, (916) 428-7122
after 6 p.m. Meets: Army Reserve Ctr., Army Depot, Fruitridge and 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.

Santa Cruz County ARC
PO Box 238, Santa Cruz, CA 95061
Last Friday/monthly — 7:30 p.m.
San Fran. Fed. Savings, 1995 41st Ave., Capitola
K6BJ repeater 146.19/146.79

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

South Bay Amateur Radio 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 Tues./monthly 7:30 p.m.
145.39 MHz WD6EJF

Ukiah Amateur Radio Club
P.O. Box 1373, Ukiah, CA 95482
Meets: Carpenters Union Hall
2nd Monday/Monthly 7:30 p.m.
President: Bob Rowe - KA6CXM (707) 485-7147

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

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 Amateur Radio Club
American Legion Hall Post #826
5320 Fallbrook Ave.
Woodland Hills, CA
2nd Thursday/monthly — 7:30 p.m.

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

Yolo Amateur Radio Society (YARS)
Rolind Mahan, AJ6P (916) 756-0882
Heart Federal S&L, Conf. Rm.
3rd & F Sts. (opposite Davis PD)
Davis, CA 95616

FLORIDA

Platinum Coast Amateur Radio Society
1150 S. Hickory St., P.O. Box 1004
Melbourne, FL 32902-1004
Meets: 2nd Monday/monthly at Melbourne Red Cross
Talk-in on 146.25/85 or 146.01/61 rptr.

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

Vero Beach Amateur Radio Club W4OT
Walter Camuso, W1ESN, President
Meets second Thursday/monthly - 8:00 p.m.
American Red Cross Bldg.
2506 17th Ave. • Vero Beach, FL 32960

HAWAII

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

ILLINOIS

Bolingbrook Amateur Radio Society
215 Monroe, Bolingbrook
(312) 739-0045 / call in 147.93/33
3rd Monday/monthly - 7:00 p.m.

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

Dupage Amateur Radio Club
Mid-America Savings and Loan
55th & Holmes (55th St. near RT 83)
Clarendon Hill, Il.
4th Monday/monthly 7:30 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.

Solo sailing not lonely with Radio

Bob Krauss

If solo yachtsman Katsuya Sakai, JA5WYC, ever gets into real trouble in the middle of the Pacific Ocean, there will be the biggest traffic jam of fishing boats you have ever seen. All coming to his rescue.

Meanwhile, radio operators from India to Argentina will flash his distress signal around the world to more than 100 friends who watch out for the 63-year-old yachtsman. That's why the retired Japanese industrialist has no qualms as he prepares to set out from Honolulu to Japan in a 27-foot sloop.

Sakai has used Amateur Radio to turn the world's largest ocean into a coffee klatch. While American yachtsmen tend to rely on technology (radio direction-finders, loran, satellite weather reports) to aid them in navigation, Sakai relies on friends. He simply picks up the microphone and calls somebody.

Say he wants information on the weather. He doesn't bother with a satellite report. Sakai says it's quicker to get reports on storms from Japanese fishing boats, of which there are more than 100 in the Pacific.

"Big fishing boat no good," he explained. "Small boat always watch, watch weather. Very nice. All fishing boats know me. My name famous."

Katsuya Sakai, JA5WYC, in front of his yacht — *Naruto.*

Sakai says he doesn't understand why more American pleasure sailors don't use ham radios.

He was puzzled, he said, when a woman recently got in trouble near Hawaii when she became ill on her boat.

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.

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

Six Meter Club of Chicago, Inc. - K9ONA
Land of Lincoln Savings & Loan
6655 W. Cermak Rd.
Berwyn, IL 60402
2nd Friday/monthly 8:00 p.m. Rptr. 146.37/97

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
146.10/70 147.72/12 146.625/025

Northeastern Indiana ARC
Jim Sellers
P.O. Box 745, Auburn, IN 46706
Daily 6 p.m. net on 147.96/.36
2nd Tuesday/monthly - 7:30 p.m.

IOWA

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
Old Frederick Court House
Rick Ogden N3RO
(301) 845-2670
Meets: 2nd Tuesday/monthly - 8 p.m.

MICHIGAN

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.

South Eastern Michigan A.R.A.
Meets: 1st Fri./monthly 7:30 p.m. K8FC Rptr. 147.75/15
Grosse Pointe North High School
Building C, Cafeteria Commons
Info. Contact WB5YKO (313) 774-2531

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
American Red Cross
3521 Broadway
(816) 756-2365 x65
3rd Tuesday — 7:30 p.m.

NEW HAMPSHIRE

Great Bay Radio Assn., WB1CAG
P.O. Box 911, Dover, NH 03820
(603) 742-0130/332-8667
2nd Sunday/monthly - 7:00 p.m.
Dover Dist. Court. Talk-in 147.57

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

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: Woody Gerstner, WB2IAP, 42 Mohawk Ave.,
E. Atlantic Bch., NY 11561. 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 3rd Tues. monthly, 8 p.m.
Bohemia Recreation Center
Smithtown Ave., Bohemia, Long Island
More info! Dave Potter, W2GZD, (516) 472-2394

OHIO

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

C.A.R.S. (The Clyde Amateur Radio Society)
Ervin Remaley, KA8CAS, Secretary
2nd Tuesday/monthly - 7:30 p.m.
Community Rm., City Building, Clyde, OH
Repeater 144.75/145.35

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

OREGON

Oregon Tualatin Valley ARC
Beaverton Elks Lodge
3500 SW 104th Ave.
Beaverton, Oregon
2nd Wednesday/monthly - 7:00 p.m.

SOUTH CAROLINA

Trident Amateur Radio Club (TARC)
P.O. Box 73, Summerville, S.C. 29484-0073
Meet-Park Circle Presbyterian Church
North Charleston, S.C.
3rd Monday — 7:30 p.m./Nets — Tuesday 8 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 - K4DHO/R
Salvation Army Community Center (Big Bethel Rd.)
Hampton, VA
1st and 3rd Tuesday/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.

Sakai carries medicines which are numbered, he said. When he gets sick, he calls his doctor, who tells him what number to take.

If the weather around Kyushu prevents radio reception, a friend in Peru, Tonga, San Francisco, Argentina or Uruguay will get on the air and make the call for him.

In addition to land-based radio hams, Sakai is in regular contact with yachting sailors in Florida, Chile, Australia and India.

The other day, while trying to contact Japan, he first talked to a boat on the Amazon River, then to somebody in Peru — all in Japanese.

Sakai said he didn't have time for much besides a little golf and a lot of sake wine while he was president of the Matsuyama Shipyard.

"I busy, busy, busy," he explained.

Then he sold the shipyard and retired, but he kept a few ships to operate so he'd have something to do. He also took up poetry, music and painting. His art teacher is Usabro Ihara, whose work is in the Honolulu Academy of Arts.

And he returned to an old hobby — single-handed yachting. He said the reports of his solo voyages to Taiwan, Korea, Okinawa and all around Japan, published in the Asahi Shimbun and other newspapers, have made him the most famous solo yachtsman of his age in Japan.

There are many younger single-handers in the country, but few are retired, successful industrialists.

He said he sometimes became frightened on voyages when he was younger. But after the seven or eight years he's been in radio contact with friends all over the world, he feels much more confident.

His present voyage began in 1981, when he shipped his little boat to San Francisco and sailed to Honolulu.

In 1982, he set out for Japan by way of the Marshall Islands, but ran into a typhoon that knocked out one of his radios and drowned his batteries. So he put into Majuro, then returned to Honolulu.

He is now (late November 1983) waiting for a radio that he sent to Japan for repair. When it arrives, he'll set sail for home via Kiribati (the Gilbert Islands). From there, it's anybody's guess.

Tahiti? Hmmmmmm. Rarotonga? Maybe.

For his next voyage, he said, he wants to sail in the 1984 Singlehanded Transpacific Race from Los Angeles to Honolulu. Then, in about three years, he'll enter the Single-handed Race Around the World.

—The Advertiser. submitted by Rufus McCracken, KH6QL □

ATTN: Rainbow Family

Any member of the Rainbow Family wishing to form a net, please contact Ulis Fleming, WB3LUI, at P.O. Box 122, Odenton, MD 21113. We need interested amateurs to help provide emergency communications at the Rainbow gathering in California. □

Russians change call letter scheme

Peter Onnigian, W6QEU

Last February, the Russian State Telecommunications Inspectorate issued a revised plan to change the Amateur Radio call signs in Russia, effective 01 May 1984.

The stated purpose is to increase the number of call signs available and more clearly identify the various political areas within the Soviet Union. Another purpose is to identify the various oblasts and krays.

Currently, "U" prefixes are assigned to radio clubs and individually licensed stations, while "R" is given to the Novices and Novice club stations. Digits from 1 through 0 are assigned to the Russian Soviet Federated Socialist Republic, extending from Leningrad all the way through Siberia. Fourteen suffix identifiers are used for the non-autonomous republics. These are shown in the list below.

Some existing stations will change their calls, while all club stations calls will be re-assigned. Individual calls will be changed when the licensee moves to a new oblast. Those using 200 watts or more may get new two-letter suffix calls if they apply for them.

The first letter in the Russian call for RSFSR and the Ukrainian assigned calls will indicate the oblast in combination with the digit. The fourth, and the fifth (if used), letters have other minor geographical indicators.

The first letter in the prefix will always be "R" or "U". The second letter is the very important new change, as it will indicate the geographical-political area or republic. This plan was not uniformly applied in the past.

Geographical location: "Country"	Second letter: "Identifier"
RSFSR	A-N-V-W-Z
Ukraine	B-T-Y
Byelorussia	C
Azerbaijan	D
Georgia	F
Armenia	G
Turkoman	H
Uzbek	I
Tadzhik	J
Kazakh	L
Kirghiz	M
Moldavia	O
Lithuania	P
Latvia	Q
Estonia	R

The letters E, K, S, U and X are not assigned in the second letter. An example of this new call sign procedure would be UG6AB, now assigned to O.G. Avakian in Erevan, Armenia. After 01 May, his call may become UG1AB or UG8AB. We would know, however, that he is located in Armenia because the second prefix letter is G!

The UK6 series of calls are currently assigned to Armenia. These would also change to UG because the K letter will no longer be used as the second letter in the prefix.

While UG1AB is in Armenia, UF1AB in Georgia, UA1AB in RSFSR, and UB1AB will be in the Ukraine! This should simplify the lists in the Callbooks, under the second-letter identifiers for DXCC "countries" in the Russian section. The unusual special calls will still be assigned to the Arctic and Antarctic areas for Soviet operators.

More information will be forthcoming, to further clarify the Russian call letter assignment plan in the months to come.

TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

Tactical procedure

The recent storm in the Carolinas pointed up a problem often addressed by Don Simon, NI6A, and the others in California who are urging an overhaul of our emergency communication concepts — that the two branches of our public-service arm are often out of touch with each other.

There was friction between a net manager and an emergency coordinator over proper procedure and over who was in charge of the operation.

Specifically, ARRL traffic literature insists that adherence to proper procedure and to standard message form is essential in an emergency. In fact, it was especially with emergency communication in mind that they have been developed. And here comes a local emergency coordinator saying something about tactical procedure — something unheard of, which simply does away with all the formalities and reduces everything to a CB type of operation. A heck of a way to run an emergency net. The net manager should call the guy to order.

But the emergency coordinator finds it all spelled out in his workbook — tactical procedure for use when no relaying is needed, and a clear statement that the disaster zone emergency coordinator is the one who calls the shots. A perfect set-up for a fight.

Both viewpoints are correct as far as they go, but they conflict if either is taken as an absolute. But what is the poor net manager or emergency coordinator to do with only half the picture?

When traffic is to be relayed, proper message form is indeed necessary and should be insisted upon. But in many cases, it would only serve to delay operations when two stations are in direct contact. In such cases, it may be better to use tactical procedure, which is simply informal communication like a telephone conversation. Even here, however, anything that should be kept as a permanent record is better handled as formal traffic. Here is where it's for the emergency coordinator to decide. The net provides the emergency coordinator with a channel of communication, but it's his decision as to how it is used.

One element of procedure is not changed, however. In fact, it must be all the more rigidly observed during an emergency: the net control station is in charge of the actual net functioning, deciding who may talk to whom.

Another bone of contention during emergencies (fortunately, it did not arise during this one) is when a net manager, in an effort to maintain proper procedure, insists that all traffic be routed by the standard National Traffic System (NTS) scheme. Quite the contrary: this is one place where the procedure itself makes an exception.

During an emergency, or for that matter whenever the NTS is overloaded, handle your traffic by whatever routes are available. In particular, don't hesitate to short-cut standard routings if you have traffic of precedence above routine and can do so without delaying other traffic. If the traffic gets heavy, you may have to set up special schedules and dispense entirely with the NTS concept yourself. Just keep the traffic moving, letting the stations outside the disaster zone put it into appropriate NTS nets, or handle it otherwise.

Sporadic E

The article by Jim Stewart, WA4MVI, in February 1984 QST, showing a correlation between occurrences of long-haul VHF contacts by sporadic E (Es) ionization and severe thunderstorms such as the 28 March tornado, suggests a possible opportunity for mutually beneficial cooperation between Amateur Radio and the National Weather Service.

Amateurs would get tips on band openings, and the Weather Service would be able to use reports of Es DX to identify areas of severe weather. More important for the Amateur Service, even if not appreciated by many amateurs, is the fact that the discovery of this correlation would be a significant scientific contribution by amateurs if subsequent studies confirm it, in the best tradition of earlier amateurs who discovered worldwide HF communication and several new modes of VHF propagation, including sporadic E.

A net could be established for the interchange of reports of Es contacts, perhaps on 14 MHz, with someone in the Kansas City area to correlate them, report their occurrence to the Severe Storms Center there, and inform amateurs of the location of sporadic E clouds and of areas where severe weather has been reported or is expected. Amateurs would have this help in adding to their collection of grid locations, and the meteorologists would have an additional tool to help them forecast.

Stations would report time of contact and the grid locations of the two stations. (See John Lindholm, W1XX, in January 1983 QST, for a full explanation of the VHF grid.) The coordinator would plot the mid-points of the various paths, and thereby identify the position of the Es cloud, or perhaps do it more accurately by finding where lines joining pairs of stations cross. Anyone want to take up the idea?

In praise of CW

Jan Scheuerman, WB2JCE, writes in the March-April issue of the *New Jersey Traffic Bulletin:*

"How do you communicate when your mouth and tongue are grossly swollen, your jaw is wired closed, and you're too weak to write on a pad? Why, you use CW, of course."

Doctors and nurses were more than mildly interested when her husband, Hugo WB2IGD, checked into the American Oncologic Hospital carrying a code-practice oscillator. He not only conversed with Jan by code, but she was able to translate his needs and requests to hospital personnel caring for him after extensive facial surgery and complete reconstruction of his lower jaw.

This was a first for these people who have dealt daily with hundreds of patients unable to speak, and they agree that this means of communication played an important role in his recuperation. He tapped out on the oscillator, "U cant imagine the frustration of one day being able to communicate normally es the next day complete silence."

Had the FCC not required code as part of the licensing exam, in all probability this means of communication would have been closed to Hugo and Jan. Hugo says he's never considered CW his favorite mode of operation on the air, but is now convinced that it should definitely be a required part of the test. Until this major crisis in his life, he had been an advocate of a no-code license.

Until he regains his ability to speak, Hugo expects to use the oscillator daily. He has been discharged from the hospital and is currently in a rehab center, no doubt teaching his therapists the code.

Jan concludes, "It's been rough, to say the least, but THANK GOD for that code-practice oscillator!"

Olympics, 1984

Amateur Radio has been admitted to the three Olympic villages in Los Angeles this summer to provide service for the visiting athletes. This was a long time in coming, because Olympic officials are understandably very concerned about security, given the current epidemic of international terrorism.

Only a very limited number of amateurs will be given passes, and these amateurs will have to have a security clearance. Because of the small number of operators, each will have to carry a heavy schedule.

Operators interested in volunteering for this service should contact Los Angeles Section Manager, Stan Brokl, N2YQ, 2645 North Marengo Ave., Altadena, CA 91001; phone (213) 798-8827.

These few operators will, of course, need adequate support in the form of amateurs to receive the traffic and forward it. Stan would like to hear from you, too, if you can help in this way, and will put you in touch with those arranging the schedules. It's an opportunity for public service, and also for publicity for Amateur Radio.

As this is being written, nothing official has been said, but it is believed that work is under way to arrange special temporary agreements for third-party traffic with countries not normally permitting amateurs to handle it.

Presumably, some traffic will be originated in languages other than English. Should you refuse it if you don't understand it?

If you are originating the traffic, you should at least understand it enough to know it is legal to handle it by Amateur Radio. If you receive it on the air, you can leave the responsibility for that to the originating station, and simply pass it on *exactly* as received (sometimes difficult in a strange language). □

Learn code on the air

Fred Silveira, K6RAU, has announced that his code course is once again on the air, with two major changes.

1) The frequency has been moved from 3780 kHz to 3865 kHz, to help reduce interference and conflicts with the popular DX activity now present in the Extra Class section of 75 meters at the time the course is transmitted.

2) The course is now being transmitted *12 months* of the year, rather than six.

The time to listen for the course is 0630-0700 California local time, Monday through Friday, on 3865 kHz (±), A2/A3/LSB. This is a course for everyone, including friends and family members who don't know the difference between a dot and a dash. □

regulars who deserve special thanks.

The list is growing with Johnson Spacecraft Center in Houston, Texas, and Space Command Base Support Team members from Colorado Springs entering the System. The next phase now in process is with stations on the other side of the Atlantic that have a connection with the Space Division.

If you want to develop that special program for your group, establish a good working relationship with your hosts or your base in the area, and determine what the host needs that USAF MARS can supply.

To assure success, propose that program and follow through with a commitment of timeliness and professionalism.

He won't lose license

A Congressman was asked to look into the status of the fine levied by the FCC against Eugene B. Sykes, W4BRB/W4OO, of West Palm Beach, Florida. Sykes was fined $550 a year ago for operating on the Novice band with excessive power.

A neighboring ham — Henry Luhrman, W4PZV — said that Sykes was actually causing him intentional (second harmonic) interference by operating on 7123 MHz. Luhrman was operating on the 20-meter phone band.

The FCC never addressed the intentional interference issue since it is very difficult to prove, but did find Sykes operating with 540 watts (more than the 250 watt maximum allowed on Novice band) by taking nearby field strength readings. He was fined $550, which he has refused to pay.

The Congressman (Representative Daniel A. Mica of the 14th District, Florida) looked into the situation and found that the matter was turned over to the Attorney General's office on 02 February 1984, for collection. He also said that Sykes won't lose his amateur license, since only one penalty can be levied — that being the $550 "forfeiture".

— W5YI Report; submitted by Henry Luhrman, W4PZV □

All is well with WDSN

Paul Turkheimer, AFF6P/WA6NKL

"This is the Worldwide Space Division Net, AGA6LA, Net Control. This is a directed net. All stations . . . ."

This is the typical initial call that emanates from the Space Division and the Los Angeles Air Force Stations MARS Facility at El Segundo, California. This net, under the direction of Deane Bouvier, AFA6SL, is not a traffic, phone patch or training net, but a net with the specific and exclusive mission to provide the essential backup HF communication to its host command — the Space Division.

Initiated in March 1981 as the result of an intense effort to match capability and need, the capability of this base support team at Los Angeles to meet the needs of the Space Division was its justification. The Division's requirement to have an alternate path for basic communications to its subordinate commands, which include the tracking stations worldwide, was the challenge to the local MARS group.

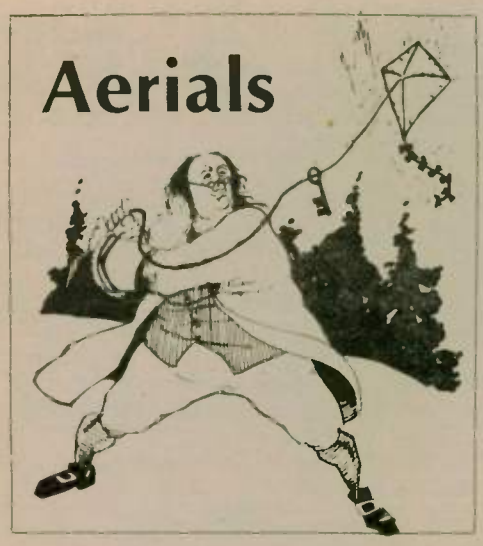
A detailed proposal, addressing the statements in this Air Force Division's plans for the MARS group's mission, had to be addressed. The resources had to be identified, and a step-by-step implementation plan was prepared. Several briefings to the Commander resulted in the implementation of the system as set forth in the proposal.

To make this a workable system, dedicated frequencies had to be reserved. These were selected, based upon the distances to be covered and the worldwide propagation phenomena. This was especially critical in view of the difficulties with the current 11-year cycle. Our headquarters understood the problems and provided full support.

Next was the phased approach. First, the Western Hemisphere stations were tied together, with AGA6LA as the master net control station. Patrick AFB, AGA2PA, was designated as the relay station to the Eastern Hemisphere. Without the effort of Audrey Bates, AGA2BW, this would have been very difficult. Nor would we have progressed very far toward the west, had it not been for "Mo" Mohica of AGA8HI. We are also continuously amazed when we can hear stations from Guam responding to our calls, sometimes at 2:00 a.m., their time.

The management of the Lockheed Space and Missile Company made available its Amateur Radio club, a "stone's throw" from the Air Force's Satellite Control Facility (SCF) at Sunnyvale, and it became the MARS station connecting the SCF into the system. Gil Morris, AFA6PZ, who organized the station, and Harold Yarian, AFA6GZ, have been the

Aerials



Kurt N. Sterba

Well, I see the *Newington News* had another technical glitch in an article. In a special feature aimed at the beginner, the magazine said that a balun matches the antenna to the feedline. That's all there was. That is called the sin of omission.

Lots of Novices have probably scurried to buy baluns, thinking such an item will automatically match the feedline to the antenna. And why not? That's what the famous publication said.

Let's take a look at reality. First, baluns come with *RATIOS* attached, depending on how they were configured or wound. One common ratio is 4 to 1. That would be the proper thing to use if your antenna was 288 ohms and your feedline was 72 ohms. Then you would have a match!

For example, if you had a folded dipole and wanted to match it to 72 ohm coax, the above 4 to 1 balun would be the proper one. That is, of course, assuming the folded dipole was at the height above ground that would cause it to be that particular impedance. If you had a 200 ohm antenna and 50 ohm coax, the 4 to 1 balun would again do the trick.

The next most common balun to be found is the 1 to 1. That one simply repeats the impedance found at the input to the output. And/or vice versa.

Such may be used to mesh a balanced antenna (dipole, for example) to an unbalanced feedline such as coax. For the purpose of illustration, it could also be used to mesh an unbalanced antenna (vertical) to a balanced feedline (open-wire).

However, in the case above, no *MATCHING* (as in converting impedances) would take place. Baluns can also be wound to be between and beyond the ratios mentioned above.

For the statement to be accurate, one *must* say: A balun matches the antenna to the feedline *if* the ratio of the balun corresponds to the ratio of the impedances of the antenna and the feedline. Should you have, let's say, a 600 ohm antenna and a 50 ohm coax, you would need a balun with a 12 to 1 ratio. Now you have the facts as they are.

Another magazine called the log-periodic a "dream" antenna. Sorry, it's not my dream antenna. We should clear up what may be a real misconception on the part of many hams. All those elements you see up there are *not* active elements. What the L-P is, really, is taking elements that would usually be stacked above each other, and putting them all in a row, on one boom.

The advantage in amateur operation is nil. Where the L-P has its true place is in military or commercial applications, where a wide band of frequencies is used and transmission takes place in what could be called "between the cracks."

The L-P is not some sort of super gain antenna at all. It is merely three elements on each band all up on one big, huge and expensive boom. It has no magical properties. You might as well stack them and run separate feedlines.

I'll tell you what my "dream" antenna is. Rhombics! Fifteen dB gain over a dipole. An entire "S" unit above the biggest Yagi made for the amateur service. You'll have your paratrooper boots on when using something like that.

You're saying, "takes up a lot of real estate." True. And you can't rotate it. True. But in the given direction!! And actually, there is more than just gain. There is angle of radiation. With a rhombic you can get down to 5 degrees. Plus, it will receive much better than a Yagi, multi-element and up high.

A bit less ambitious, with not all that much difference, is the "V" beam. Say, an apex angle of around 40 degrees and 1,000 feet on each leg. Get it up on some 50 ft. pop-up TV masts along the way, put it on 40 meters and you will be king. (Use a tuner and open-wire.)

A thousand feet? What you do is find some friendly farmer. Go out and use it during various contests or whenever you just want to pulverize Europe.

A "V" beam cut for 20 meters will work just fine on 15 and 10. Go out to your special location during a contest. If there is one of those big pests in your area (every town has one), find where he is in the pile-ups and you'll beat him out every time. What fun! Won't that just frustrate the clod when all the DX stations tell you that you're the loudest signal they've heard all day? Sure, you've got to spend a few bucks, but it will be worth it — every last cent.

If the only area you can get access to is a wooded one, a bow and arrow can get wires way up into trees — the higher the better. The great length will minimize fading as there is a diversity effect. You'll work stations your competitor won't even hear. This could be true joy!

When you do it, send me the results. I'll keep your secret.

Now that we've talked about the ultimate, let's go to the other end — tri-banders. Leaving aside front-to-back figures, let's just look at gain. Using one antenna, a 3-L Yagi on a 13 ft. boom, we see a forward gain on 20 of 7.4dB.

In order to increase but 1dB more, you'd have to go to a 5-L on an 18 ft. boom. That may not be what the textbooks say, but we are looking at the actual results from the manufactured beams. To pick up another whole dB (big deal!), we have to move up to a 7-L on a 25 ft. boom.

Let's look at quads. One manufacturer has a 2-L on an 8 ft. boom with 8.4dB gain. Another has a 4-L on a 30 ft. boom, and you get a gigantic 1.1dB more on 20. Is the flame worth the candle?

Those of you who have written in about my book reviews may be interested to know that I've been asked to write book reviews for another publication also.

If you enjoy books about the Spitfire, Patton, Chosin Reservoir, B-17's, etc., you'll like the new monthly publication **Military History Review**. An annual subscription is $9. The address is 2122-28th St., Sacramento, CA 95818. Right next door to good old **Worldradio**, and some of the same people are involved.

Don't forget, if you have questions about antennas, send them in and you'll receive a personal answer. Some of the queries I've received lately have really made me put on my thinking cap.

A long-time friend came to our town and visited with Lil and me. Over a long lunch, he made some interesting comments about antennas (we took notes) that you will find illuminating. Tune in next month.

(Kurt started writing this three years ago, even though his employer has a stern policy against any outside writing. They haven't caught on yet and we're glad.) □

Club is important link

Walter Wenzel, KA2RGI, of the Great South Bay ARC in Babylon, New York, has informed us that his club is recognized as the only communications link between Babylon Town and the local Coast Guard and Coast Guard Auxiliary.

They are erecting a 450 kHz repeater on 454.625/459.625, to assist with emergency coverage. □

See you in *Worldradio*

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

HW-8 QRP transceiver modifications

Joe Heyde, WB7TNH

Recently I swapped into an HW-8 transceiver. I had never worked QRP, and that facet of Amateur Radio fascinated me.

Working with an INPUT power of from 2.5 to 3.0 watts takes quite a bit of patience, concentration, and an op on the "other end" who also wants to dig out your signals from QRM and QRN. All in all, it takes a bit of doing. Needless to say, a dipole can be used; however, with just a watt or two output power, every bit of power should also be utilized. This can be best done with a beam antenna.

If you have ever had one of the many Heathkit rigs, you know they usually leave something to be desired: a good, narrow, CW filter, an S-meter, an RF output meter, RIT, dial light, etc. One good point for the Heath equipment, however, is that the Heath rigs are about the only rigs that have more modifications mentioned in amateur reading materials than any other brand of rig. (Maybe that's because Kenwood, Yaesu, ICOM, etc. already have all the "bells and whistles" an amateur wishes for.)

So if you have an HW-8 that you aren't satisfied with, and would like some mods for your rig, just ask. I am willing to share my mods and specs so you can get copies and do the work yourself. It's not too difficult, and, to say the least, very rewarding.

My HW-8 now has the following mods in it: *15M mod* — really makes 15 meters "come alive" about twice as good as at first. *Dial light* that makes reading a bit easier. *Internal speaker* so phones aren't needed all the time. *S-meter* for incoming signals. (The relative power output meter is still good for measuring output and tuning up. *RIT* that gives about 1 kHz of variable signal from the center frequency. *FULL COVERAGE* of 80M (3.5-4.5 MHz), 40M (7.0-7.5 MHz), 20M (14.0-14.5 MHz) and 15M (21.0-21.5 MHz). A *CW filter* with a center-frequency of 750 Hz, and quite a bit narrower than the wide-narrow filter that came with the rig.

Outwardly, the rig only appears to have a mini-toggle switch added to the front panel. The rear panel has a rotary switch knob, a toggle switch, and a phone jack added. The speaker grille consists of a series of holes in the top chassis cover. All the mods were built on DIP-1 PC boards, with almost all the parts being available through the local Radio Shack stores.

CQ Magazine has a QRP column by K8EEG that is very interesting and helpful, plus an article "Once in a while" in 73. The world of QRP is fast becoming larger.

If I can help you in any way, or share my mods with you, let me know. My address is 6000-2nd Ave. North, Great Falls, MT 59405.

— Great Falls Area ARC, MT

Discovery made by QRP operator

Mark Johnson, N7DYS

Having been a member of the scientific community at one time, (I took a biology course in college), I have always been interested in peculiar phenomena. It is with great pride that I reveal a bizarre phenomenon that is showing up on the amateur bands. I call it The Dinner Bell Syndrome.

This particular syndrome is really not new. Anyone who is familiar with the work of Pavlov and his drooling dogs will probably be able to identify this syndrome without much difficulty. As with Pavlov's dogs, certain stimuli create a "drooling" response in many Amateur Radio operators. This response is directly related to admitted QRP operation.

In order to study this phenomenon, I set some conditions that would be stringently followed during the experiment.

First, output power would be limited to only 2 watts at the most.

Second, only CW operation would be used in the initial experiment because of license restrictions and the attitude of the FCC in regard to Technicians using SSB in the HF bands.

Third, no admission of QRP operation would be made until the signal report was received from the other operator. If this report was over 569 I would advise the receiving operator of the low power level.

After only a brief period of operation, I discovered an unusual pattern developing. When I was given a signal report of 569 or more I would immediately respond with "TNX OM QRP HR ONLY 2 WTS OUT." In virtually every instance, this admission was followed with "SRI OM BUT XYL SEZ DINNER IS RDY."

What conclusions can be drawn from this experiment? First, the grocers of this nation will soon see a dramatic increase in

(*please turn to page 42*)

It is quite common with magazines and many other publications that material is read many weeks after it is written by the author. Such is the case with the columns you read here in **Worldradio**, and this one in the June issue in particular. Although you are reading this column in May, after the Dayton Hamvention, there is no news from Dayton. The reason is, of course, that I wrote this column in early April and had yet to go to Dayton. The Dayton report will be in next month's column.

For the past six months, I have participated in an SSTV survey along with nine other SSTV'ers. A smaller group of us did a similar survey last year, and I reported on it about a year ago in this column. There were more people involved this year than last year, but we cut down a bit on the data recorded.

For nearly a year, I have been compiling a list of active SSTV'ers. I'm interested in the SSTV equipment being used and the types of SSTV transmissions commonly in use. The other participants had various reasons for helping in the survey. Many had simply a genuine interest and curiosity in the statistical results and wanted to help compile that information.

Each participant has a copy of the survey data for his own use.

Survey guidelines

We set out to monitor the various SSTV frequencies over a six-month period. We wanted to determine how many different SSTV stations were active, what SSTV equipment they were using, and what types of SSTV transmissions were being sent.

Rather than monitor sporadically for six continuous months, we chose to monitor nearly continuously for one week out of each of six consecutive months — October 1983 through March 1984. This proved to be more reasonable on the participants in regards to scheduling and other activities.

We monitored the 10 and 20-meter SSTV frequencies for 18 continuous hours for seven consecutive days each month. We did some monitoring on 15 meters. Regional 40- and 75-meter SSTV frequencies were not monitored. We recorded only U.S. SSTV stations.

We recorded the call signs of the various active SSTV stations. We noted the SSTV equipment being used, and during QSO's, we logged the various SSTV transmission types. The resulting data is somewhat subjective in the area of SSTV transmission type.

SSTV QSO's last from minutes to hours. Stations come and go. Transmission types vary within the QSO.

We had logging guidelines to insure that the overall results would be accurate and representative. Generally, as stations came and went from a SSTV QSO but the transmission format remained essentially the same, that became one statistical QSO. When the transmission format changed to another type, even though some of the same stations remained in the QSO, a new statistical QSO was recorded.

Survey results

For the six-month period, a total of 314 different U.S. SSTV stations were logged. The following is a list of the SSTV equipment in use, along with their numbers and percentage of all equipment logged.

Equipment	Total	Percent
Robot 70/80	7	2.2%
Robot 400	128	40.8%
Robot 400/3000C	47	15.0%
Robot 400/ Colorscan 403	2	0.6%
Robot 400C	29	9.3%
Robot 450C	12	3.8%
TRS-80C/K6AEP	36	11.5%
Microcraft 1000	24	7.6%
Magnum CMJ-IF/TU	8	2.5%
Other	21	6.7%
Totals	314	100%

A total of 876 SSTV QSO's were logged during the survey. The following are the totals of the various SSTV transmission types and their percentages.

SSTV transmission	Total	Percent
8.5-second B&W	261	29.8%
17-second B&W	7	0.8%
34-second B&W	37	4.2%
R-G-B color	286	32.6%
25.5-second color	161	18.4%
51-second color	16	1.8%
Robot color	108	12.4%
Totals	876	100%

Conclusions

Space does not permit the publishing of an individual month's statistics. Trends and changes are not evident with just these figures. It is evident, however, that color SSTV is now more popular than B&W. Last year, B&W SSTV transmissions slightly out-numbered color SSTV.

Looking down the list of SSTV equipment in use, you should note that some of the equipment is new and just recently available. The Robot 400C was first available last fall. Both the Robot 450C and the Magnum CMJ-IF/TU have only been available since about 01 January 1984.

Over the period of this survey, color SSTV transmissions have slowly and steadily increased in popularity over B&W SSTV. Both standard 8.5-second B&W and high-resolution 34-second B&W SSTV will be around for a long time.

There has been a sharp drop in the use and popularity of 25.5-second single-frame color SSTV. This mode was very prone to being knocked out of color synchronization by QRM and QSB. Although a fix for this problem was promised some time ago, it never came. 51-second color was plagued by the same problems as the 25.5. It, however, just never caught on and has never accounted for more than 5 percent of color SSTV transmissions.

On the other side of the popularity charts, the new Robot color format has become increasingly popular in recent months. Their 12-second single-frame color composite format has been widely accepted and used, and is being incorporated in other systems.

For those genuinely interested in statistics or desiring the complete survey data, copies of the complete 1982-83 and 1983-84 surveys are available for a total of $10 postpaid from SSTV Survey, P.O. Box 39, Bangor, MI 49013. □

Teacher

(continued from page 29)

Bill Harding, KA1ICD, was a recent graduate of my General class, but was mike shy. He had wanted to call me and offer his sincere help, but had rarely used his General Class phone privileges. He and I had a long talk about retired hams, and that's where the potential was to solve problems.

For the first two weeks of school, Bill manned the newly set-up station everyday from 7:30 to 11:00 a.m. He very cautiously went on the local repeater. I called two of our handicapped members to make sure they worked him every morning on the 2-meter repeater. They helped him get over his mike shyness. Soon he was using the low-band gear and talking up the need for help. Three more retirees started coming over to run the station.

The room/closet is located in the main corridor of the high school. Many students have to walk by it on their way to the guidance offices and the library. The door is left open, and a few stop by and show some interest. It is a slow process. Everyday a new kid will start asking some pertinent Amateur Radio questions, and our retirees are there to answer them.

When the bands are dead, we have been leaving a videotape player in the hallway with the STD*9 tape in it. The high school kids like to watch it during their free periods. When the low bands are open, the station has been keeping regular schedules with many other school stations and nets.

The station is also good in that it gives newly licensed Novices and Generals a place to go and sit down with an Elmer to help them through their first few contacts. It is also being used for the nighttime Novice class.

Everyone seems to be happy with these arrangements, especially the retirees. It seems many of them, even though they have their Generals, have no stations. This is because they have moved to apartments or condos. □

WITH THE HANDI-HAMS

Maureen Pranghofer, KF0I

A friend and I were recently discussing the things we liked and didn't like about Amateur Radio — or more correctly, we were both talking about the next new frontier of hamdom we wanted to try. Even though we were both talking to each other, it sounded like two different conversations. It went something like this:

"You know I haven't heard you on very many traffic nets lately."

"Well, I think I kind of want to get out of the traffic business. It seems like once you get involved in traffic you have so many commitments. You know you have to be at a certain net so many times a week, and it starts to take over your life. It's kind of more than a hobby."

"Yeah, I guess that can happen, but you know, I really like nets. I'm excited about MARS and maybe I might start doing more with traffic."

"Well, you can have it, but I want to get in DX. Now there's something I think is really interesting."

"Well, you can have that, but I really want to figure out a way to get into RTTY."

"You know, I just love phone, and to sit and talk to someone out of the United States would be great."

"You know, I just love CW, and to have something which sort of is like super speed CW come out on a printer would be just neat."

We continued this parallel conversation until we both realized that I had no interest in DX and she had no interest in RTTY, and neither of us was listening to what the other was saying. Our parting was congenial with each of us summing the whole thing up by saying, "Isn't it great how Amateur Radio has something for everyone?"

Like everything else which is becoming more compartmentalized, I guess it is happening to the ham bands also. You have your DX chasers and CW rag-chewers, your RTTY fanatics, and those who wouldn't think of getting on the air unless they are county hunting or working OSCAR. But even these groups are becoming more selective. Take nets for example . . .

You might think this is just any group of people who have a specific purpose for getting together on one frequency which makes up a net. But in looking around the bands, you can find all kinds of nets. Here is a list of some of those I have run into when searching the bands.

Age-oriented nets. I've run into two types — those for seniors like the Geritol and pabulum nets, and those for youngsters like the homework net which used to meet on 40 meters. *Religious affiliated nets* to aid missionaries and assist specific church groups in disaster traffic; *Computer nets* which are even more specialized into Apples and Commodores; *DX nets; emergency nets,* set up for brief time periods to handle specific emergencies; *friendly nets,* which don't seem to have any specific purpose but to have folks get together. They don't necessarily take traffic but are sort of like organized round-tables.

There are *traffic nets* — I suppose all nets should fall into this category, but there are some who prefer to pass traffic onto NTS area and region nets where the "real" traffic pro's are; *occupation-oriented nets; maritime nets; contest nets,* like the YL and county hunters; *weather nets;* and *technical nets,* to name a few. And, of course, there are *mode-oriented nets* such as the Novice nets on CW and slow- and high-speed nets for other CW buffs. Anyway, it is easy to see how specialized some groups can get.

Here are some nets which may exist, but I've not run into them yet. (Let me know.)

1) *A slow-speed phone net.* How about a net to teach people about nets where information is given slow enough for the new ham so that everyone can easily copy?

2) *A remember CW net.* A mandatory net for all other net operators so they will know what a CW check-in is, should they ever get one while they are net controls. Sort of like teaching CW over phone.

(*please turn to page 40*)

Teepee antenna makes good smoke signals

Jerrold Swank, W8HXR

When I first drew up this antenna I had it vertical, for a single-support mounting, and it looked like a teepee, but I decided to lay it on its side. I almost called it an "A Frame" antenna, but the teepee sounded like more fun.

I put up a ¼" nylon rope on my TV tower at about 30 feet, and ran the other end to a 30 ft. mast made of 1½" tubing, and back-guyed.

The delta loop is made of Belden 8000 stranded wire and is 69 feet in length, overall. This is obtained by dividing 984 by 14.250 kHz, which is the standard quad measurement. This gives 69 feet; divided by three, this is 23 feet per side.

With the long side at the top and the feedpoint at the bottom, the radiation is mostly low angle, and — being horizontally polarized — does not pick up much man-made noise.

Single wires can be used with good results as reflectors and directors for a quad or delta loop antenna. However, this would normally mean at least two more supports.

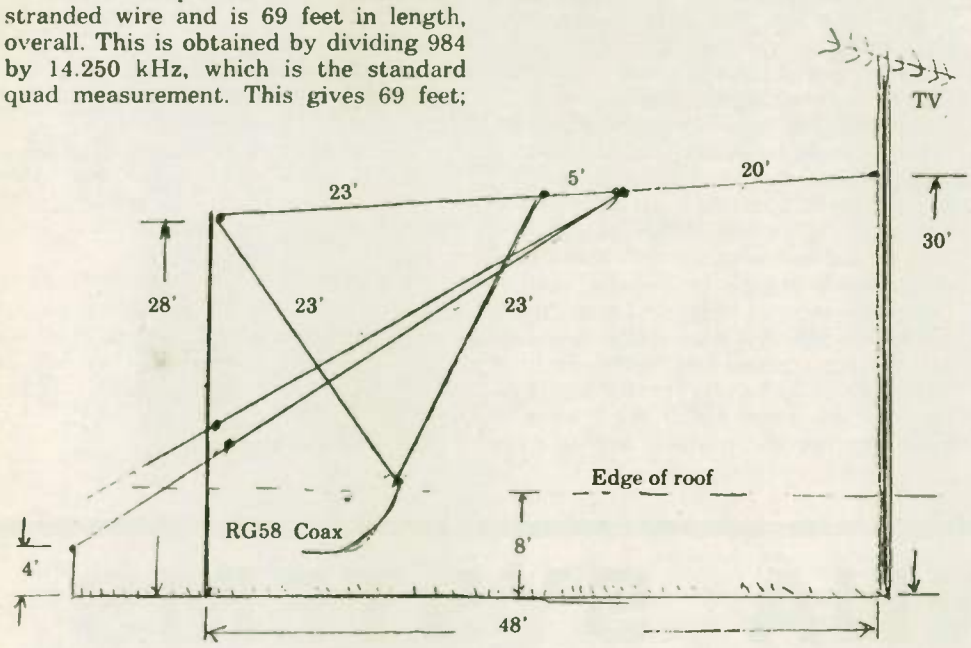


Figure 1 Elevation

I decided that since the center of the half-wave wire would be the high current section, it probably would not have to be exactly parallel with the driven element. Ed Noll has used sloping wires for parasitic reflectors and directors on dipoles, so why not on quad loops?

This makes it possible to have the entire antenna supported by only one tower, with a low mast at the other end.

The ends of the reflector and director are, as shown in *Figure 2*, supported by 4 ft. fence posts. I placed the top of the V section 5 feet from the delta loop. This placed the centers opposite the center of the delta loop.

My two supports are east and west, and thus the loop fires north. I think the angle of the pattern is about 60°, and this places the half-power points on the east at Sweden, and outside that line, but not too far, is northern Europe.

On the west, the half-power point goes through Japan. If I could, I would make the antenna northeast and hit all of Europe, but I cannot do that with my house position.

I once received S9 with 100 watts from a mobile in Holland — PA0GHB, and Charles Morgan, K1GZL, in Berlin, New Hampshire, says I was always about 9 plus 30 at his location barefoot. This is about 2100 UTC; I came up about 10dB when I put the reflector and director in, he said. I am now 40 over 9.

I think the fact that the director is turned 10° to the east from the plane of the loop may skew my pattern a bit, as I also get very good reports from stations in England and France.

Andree Balout, F6AYF, in Paris came up from about a usual S5 to S9 when I added the parasitics.

All in all, I like the antenna very much. It is a great deal cheaper than a rotary beam, if you only want one direction. When I put the array on a noise bridge, it showed 50 ohms at 14.250 kHz. I do not use a tuner anywhere in the 20-meter phone band. □

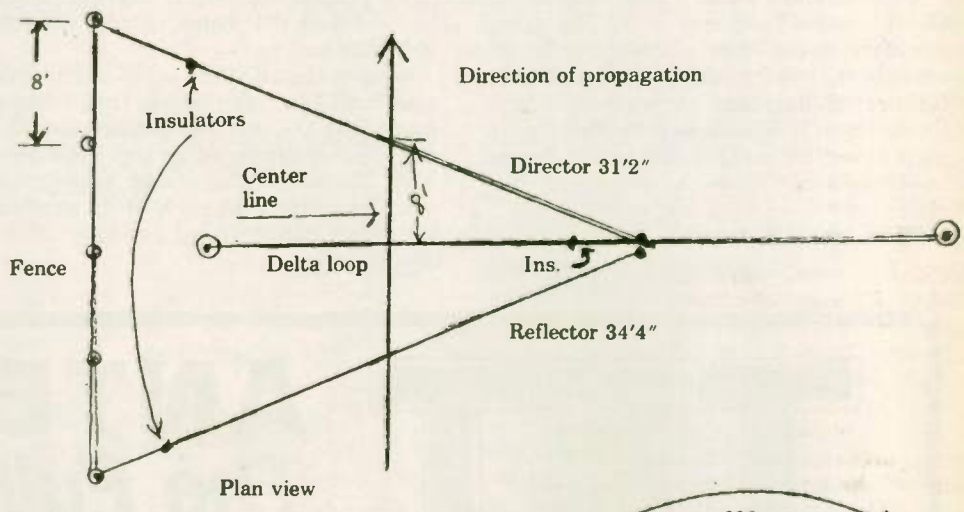


Figure 2

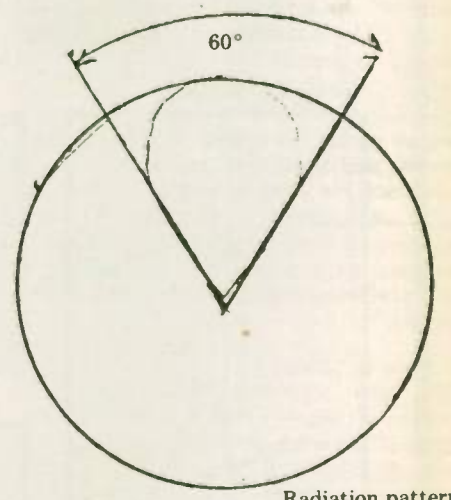


Figure 3

HANDI-HAMS

(*continued from page 39*)

3) *What-would-you-do-if net.* A net having the design or surprise emergencies so that net controls would know what to do if and when they were asked if there was any priority traffic. Then, if someone answered, they wouldn't fall apart.

4) *Debugging net.* A net designed for folks who have computers but can't figure out how to get them to work. This could be sort of a prerequisite for checking into the computer nets where people who know their machines can discuss new and creative ideas. It is embarrassing to check into one of these nets when you haven't figured out how to turn the thing on.

5) *A fake DX net.* Have someone stateside pretend they are a DX station so people can see how to contact them in good conditions. This might make things less nerve-racking for the beginner. (I understand there are already some pirates who have tried this one. Maybe it's not such a good idea.)

6) *A net for HANDI-HAM members* to get together to request needed materials and exchange information of interest to the handicapped and those working with the handicapped.

Yes, folks, there has long been an outcry for such a net. But not knowing for sure how to go about it and what type of net it should be has kept this type of net off the air — until now, that is.

On 07 March, the new HANDI-HAM net was begun. It is on the air every Wednesday from 2000 to 2100 on 21.410. Anyone from anywhere is welcome to check-in and join the group. Listen for W0ZSW and N6KCR, who are current net controls. This net is in its infant stages, so we welcome any feedback or suggestions.

If this is the kind of net you've been looking for, we look forward to seeing and hearing from you on 21.410 Wednesdays, from 2000 to 2100. See you then. □

Heath SB100, SB101, SB102, HW100 series

Wells Chapin, W8GI

Thousands of Heath SB100 and HW100 series of fine transceivers are still in use after 25 years of service. This series developed some common problems that are easy to cure, and all can be improved and updated with a few simple modifications. They are a real buy on the used equipment market for $250 to $350, and most any unit can be put into tip-top shape and provide years of additional service.

All the series are nearly identical

All the SB and HW series are nearly identical with only minor differences or additions. For instance, the SB101 and SB102 are the same, except the SB102 has a transistorized LMO (linear master oscillator) but still uses the same old Heath mechanical tuning. The HW series uses the SB series circuit boards but has radically changed the LMO tuning and simplified the metering and switching system to cheapen it. Thus, what is good for one unit generally always applies to the other series, and most times is identical.

Simple-to-service parts are standard

You do not need any extender boards or exotic test equipment to service any of these units. The only test unit you need is a VTVM (vacuum tube voltmeter). Heath puts out excellent service manuals. There are very few special parts, as most parts can be purchased in any supply house. A failure of the band switching system in one of today's exotic new fangled units means a long expensive trip to the service shop. A repair of the band switching system in the Heath SB or HW series is easy to repair. You simply loosen two set screws, pull the shaft, unsolder a couple of connections and you can replace the whole switchboard or switch. The band switches are really the only special part in the sets, so it might be a good idea to have the boards and switches on hand as a spare.

Warble problem

The most distressing and aggravating problem of the SB series is the development of a warble on all signals as you tune. It sounds a little like a jiggling ground connection or intermittent. This problem is a poor ground connection on the LMO shaft and can be completely cured with a spring and some solder suckup braid as shown in *Figure 1.*

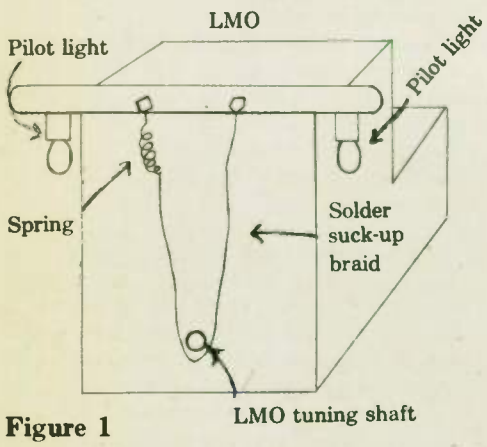


Figure 1

Loosen a metal screw on top of the LMO and mount a small spring, then tie the suckup braid to the spring, run it under the LMO tuning shaft and bring it back up to another screw as shown. Then apply a little oil and graphite to the shaft at the point of contact of the braid. After a few spins of the dial, your warble will disappear.

Dial slippage

Many of the units develop a dial slipping problem. The dial drive on the SB series is a friction type of device, and as it matures the drive gets to a point where it will not grip the dial plate. *Figure 2* shows a sure-fire cure for the problem.

Escutheon plate moves

There is a limit to the amount of pressure you can put on the nut holding the dial shaft mechanism to the escutheon plate without breaking the plastic plate. The problem can be cured by using a thin large wood, plastic or fibre washer underneath the nut. With this type of washer, you can bring enough pressure onto the plate and hence stop its moving around.

AC hum problem

Some of the units have an annoying AC hum at minimum audio setting. This can be cured by installing a piece of audio coax from point "C" on the audio circuit board to the audio gain control R930 and cut off the old cable. This old wiring evidently picked up AC from the filament lines in the wiring harness.

Transmit-receive points do not track

This problem manifests itself by maximum transmitter output and maximum receiver sensitivity appearing at different points on the dial. The models affected are: HW100, SB100, SB101, SB101W and

any model of the SB102 over serial #5446. Heath put out a modification kit #SBM102-1 that completely cured this problem. It is a simple modification, easy to install, with only two resistors, a condenser and a diode. The reason for this modification is that the plate tank circuit of V6, the second transmitter mixer, is used in the receive mode as the plate circuit of V10. Due to the tube "Miller effect," additional capacity is required when receiving. This modification uses diode switching to add the required capacity. *(Ref. #1)*

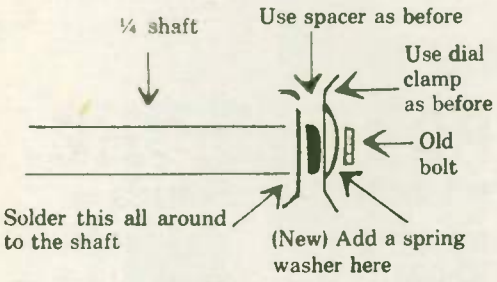


Figure 2

Difficulty changing pilot lights

It's next to impossible to change the pilot lights in the SB series without removing the front panel. Thus, while you have the front panel off curing the warble problem, you should correct this problem. You have two choices. Make a new mechanical arrangement or add life to the bulbs by installing a series resistor. I took the easy way and installed a 1.5 to 2 ohm resistor in the right-hand common lead to both the panel pilot lights. After three years of use, my pilot lights are still going.

While you have the panel off, change any control that needs it. Also, when you reinstall the panel be careful that you properly position the switch on the potentiometer that turns the selective filter off and on.

Increasing sensitivity tips

A very simple improvement is to replace tubes V10 and V11 (6AU6) with the directly interchangeable 6HS6. This will give quite an improvement in receiving.

As your transceiver matures, you will find that the variable tuning condensers do not track — thus dropping the sensitivity of the unit. This problem is caused by the hardening of the rubber ring that drives the condensers. If you send to Heath for a rubber drive ring, it not only takes time but costs a great deal more. A good substitute can be obtained from the local auto parts store and is called an "O" ring.

The sensitivity on all bands, especially on the higher frequencies, can be greatly improved by the addition of an outboard RF amplifier. I'm presently using a "Symtek" that is a broad band device that needs only switching bands. There are several other good RF amplifiers on the market: MJF, Ameco and Palomar. If you go this route, the outboard amplifier must have an "RF sniffer" so that it changes from receive to transmit automatically. It should also have a built-in power supply and a bypass switch when it is turned off.

Slow recovery time

Some of the units have a slow recovery time from transmit to receive. The problem is more prevalent on CW but also can appear on phone. In addition, the recovery time is worse on the higher frequencies. This problem is caused by the 6AU6 circuit V2 which is an isolation amplifier when transmitting. The circuit changes shown in *Figure 3* will cure the problem. If it still persists after these changes, try placing high back resistance silicon diodes in the screens of the 61465 and the 6CL6 driver tube. This subject

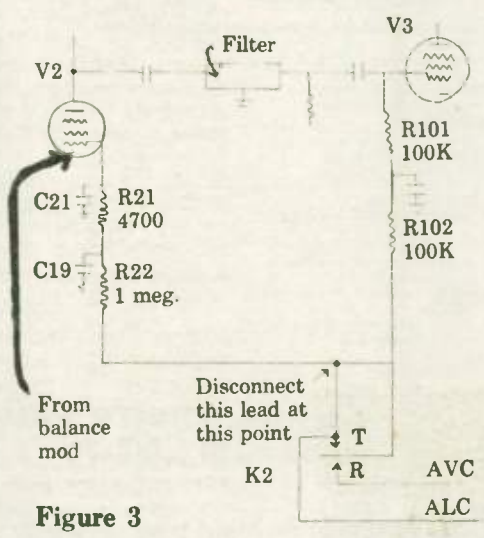


Figure 3

was covered in an article shown as *Ref. #2.*

Sluggish "S" meter

The receiver is sluggish and the "S" meter reads low. A check of the ALC-AVC circuits is indicated. You will probably find a slight positive voltage at the grid of the first IF amplifier in the transmit mode and both the first and second IF amplifiers when receiving. Take a look at RL2 and check the DC resistance between pins 11 and 12. Clean these contacts. The grids of V3 and V4 are quite sensitive to plus voltage. *(Ref. #3)*

Noise blanker added

I tried different noise blankers and was never satisfied until the SB104 noise blanker was put out by Heath. This blanker can be purchased from Heath as "Noise Blanker Kit SBA-104-1" for about $30. It installs easy and works better than anything I have ever tried. Construction is cookbook fashion ala Heath. The QST articles shown in *Ref. #4, 5* and *6* cover the subject completely with suggestions applying to an HW101, which of course covers the SB series.

Add an active audio filter

The SB and HW series CW filter works but has quite an insertion loss and doesn't give any flexibility. An active audio filter put out by the "Autek Co. QF1A" was installed and the results were gratifying. The unit simply installs in the speaker leads so nothing has to be modified in the transceiver. Several of the devices are on the market and all will work fine, but one tip is: have the power supply for the filter built in, and when you turn off the device, the same switch bypasses the filter and you go back to normal.

A few additional tips

These are tips I have not tried but which look like they may be good additions to your Heath SB series knowledge. CW buffs will like *Ref. #7.* A good article on QSK is in *Ref. #8.* A speech processor is covered in *Ref. #9.* General improvements appear in *Ref. #10.* Receiver offset tuning is well covered in *Ref. #11.* General hunts appear in *Ref. #12* and *13.*

Future projects

I have now embarked on a final step to preserve old tube-type equipment. Since the appearance of "tubsters" (a transistorized version of a tube that simply plugs in), I have been working toward replacing the tubes with transistorized plug-in devices that will be discussed in a forthcoming article.

References

1) **QST** Nov. 1968 Pg. 50 SB101 improvement
2) *HR* Mar. 1978 Pg. 110 Receiver recovery in SB102
3) **QST** Apr. 1978 Pg. 40 Inactive "S" meter
4) **QST** Jan. 1977 Pg. 39 A new look noise blanker that works
5) **QST** Sept. 1979 Pg. 45 A noise blanker for the Heath SB303-401
6) **QST** Aug. 1977 Pg. 33 Still more on the SB104 noise blanker
7) **QST** Mar. 1978 Pg. 147 CW and the HW101
8) **CQ** Jan. 1971 Pg. 16 QSK with the SB series
9) *HR* Jan. 1975 Pg. 38 RF speech processor for the SB102
10) **CQ** Aug. 1972 Pg. 16 Increasing the operating capability of the SB series
11) **QST** Mar. 1969 Pg. 46 Receiver offset tuning for the SB101
12) **73** Feb. 1975 Mod squad hits the SB102
13) **QST** Oct. 1977 Low low voltage from the *HR 23.*

□

New repeater systems

The WB3JVX-Metro Comm Repeater System is proud to announce two additions to one of the most advanced systems in the Delaware Valley. These new systems provide complete coverage from North Philadelphia, Pennsylvania, to Elkton, Maryland, and from Elkton back across the state of Delaware to Atlantic City, New Jersey, on repeaters linked together on the following frequencies: 223.36/224.96, 222.38/223.98, 448.00/443.00, 448.05/443.05, 29.52/29.62 and 1240.0/1260.0.

Metro-Comm has added and linked a new 30-watt MELCO repeater high atop Caesar's World Hotel in Atlantic City, New Jersey, with very good results across all of southern New Jersey.

The repeater is open, of course, as are all the Metro-Comm System repeaters. The number 2 add-on is a RTTY mail box on the 224.96 repeater in Chester, Pennsylvania.

To get in on the fun at 60 wpm, hit space, space, J, V, X and Return. *You will be in for a big surprise.*

So you think 220 is dead? Not in the Mid-Atlantic states. Soon Metro-Comm will be adding the 223.06/224.66 Gloucester County ARC repeater to the system. □

Discovery made

(continued from page 37)

the amount of money spent in their stores. This will be good for the grocers but bad for the harried housewife who is already struggling with an impossible household budget.

Second, more and more ham operators will begin eating meals with the rest of the family. Thanks to QRP operation, more families in this country and around the world will see that one individual who has been absent from the table for so long.

While this study is not totally conclusive, it can be stated with a high degree of certainty that QRP operation is directly related to the triggering of a hunger response in many Amateur Radio operators. Further experimentation on SSB will be needed before a final conclusion can be drawn about this mode, but it is almost certain to create a similar response.

— QRP Quarterly □

Ohm-Brew Answer

"OHM"BRE (Hombre)

OLD TIME RADIO

W5JJ
Carl C. Drumeller

A gaseous triode tube

We usually think of vacuum tubes as being just that — tubes evacuated to a "hard" vacuum. Many early "audions" were not evacuated to hard vacuums because the state-of-the-art of vacuum pumping just didn't provide for getting all the air out. This resulted in what were called "soft" tubes. These tubes, of which the Radiotron UV-200 is an example, made excellent detectors. The characteristic that made them good detectors, a kink in their transfer curves, also made them unsuited for service as amplifier of audiofrequency or radiofrequency signals.

Some tubes were designed to have other than a hard vacuum. These had mercury inserted within the bulb. When heated by the tube's filament, the mercury vaporized, providing a sparse population of mercury molecules in the region between cathode and anode. With the application of high voltage between cathode and anode, the resultant electron flow caused ionization of those molecules. This, in turn, increased the tube's ability to pass electrical current and greatly reduced the effect of internal resistance. In short, it made the tube an excellent rectifier. The Type 866 is an example of such a tube.

Some manufacturers added a control grid to the mercury vapor diode, making a triode. This triode had sharp limitations. Its control grid could regulate the start of cathode-to-anode current flow, but it couldn't stop the flow or regulate its magnitude. Of course, in a rectifier — having alternating current potential applied to its anode — this was no great problem, for the grid reinstated its control function each half-cycle while the anode polarity was negative. Such a tube was worthless as an amplifier, although it had other valuable applications.

In 1935, according to the June issue of **QST**, Raytheon introduced its RK-100 tube. This was a gaseous triode designed for analog use. It could be used as an audiofrequency amplifier or as a radiofrequency amplifier! How was this possible?

A second grid was inserted between the control grid and the cathode. This grid had a positive potential of approximately 10 volts relative to the cathode. This was sufficient to cause ionization in the region between the two elements, but a negative potential on the control grid inhibited ionization beyond this region. The effect was to partially neutralize the space charge and thereby result in a tube with a very low plate resistance. Read that as saying the tube would conduct heavily with a low plate voltage!

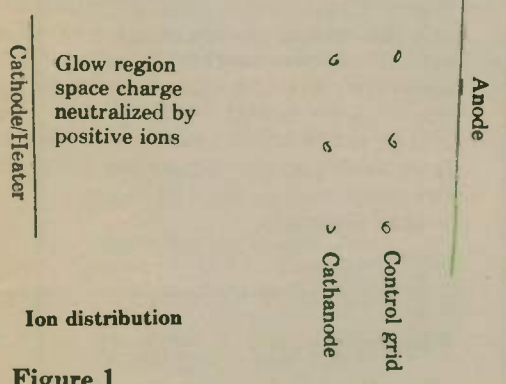
The extra grid didn't really act as a grid. It functioned as a "cathanode." That is, it was the anode of a diode and the cathode of a triode. The triode portion behaved just like any other triode except that it needed relatively low plate voltage to draw heavy current.

The same issue of **QST** described a radiotelephone transmitter using the RK-100 tube in all four positions of its radiofrequency section and all three positions of its audiofrequency section, demonstrating the versatility of the gaseous triode.

For various reasons, the gaseous triode never came into wide usage. Probably one reason for its small application was that it

Looking down into the RK-100

From center out, cathode, cathanode, control grid, anode



Ion distribution

Figure 1

was designed for use on the 110-volt DC distribution systems used in only a few localities. These were being phased out in favor of alternating current systems. Then, too, a series of vacuum tubes designed to work on not only 110 volts but even 48 or 32 volts appeared on the market. These pretty well took over the low-plate-voltage tube market.

It took another two decades before low-plate-voltage tubes made the radio publication's headlines. That was when a series appeared that was designed for use in automobiles having 12-volt electrical systems. Tubes in this series used 12 volts on both their heaters and their anodes! They, too, quickly lost out. Transistors took over, and vacuum tubes were on their way to antique columns in magazines for collectors.

But you can win many a bet with old-timers and not-so-old-timers by wagering that at one time, mercury-vapor tubes were used as audio amplifiers! □

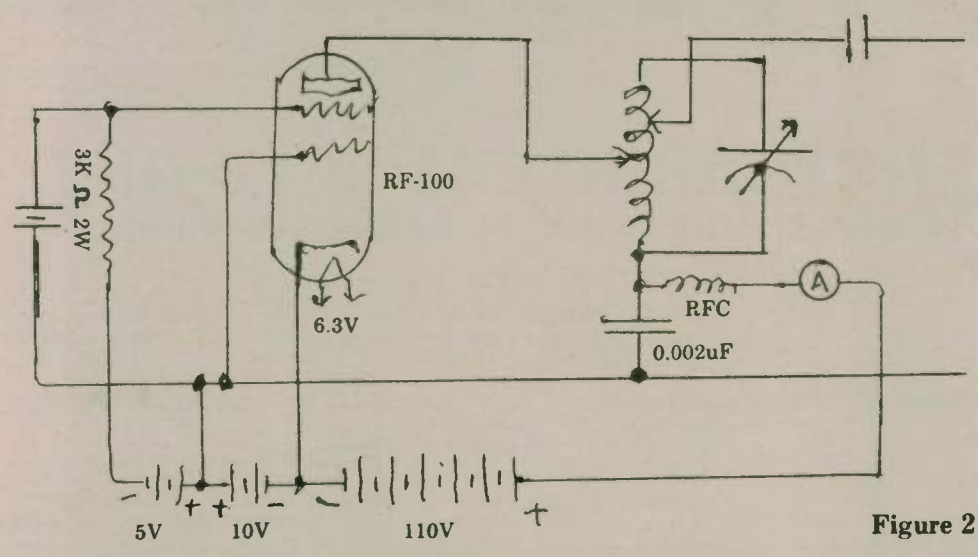


Figure 2

7 MHz crystal-controlled exciter. High transconductance, up to 20,000 microohms, imposes little load on crystal. Note tap on coil required by low plate impedance.

Memories of the 'early days' in Radio

Tim Puffer

International DX'ing is taken for granted by a lot of radio amateurs nowadays, but a look at the QSO card of Jim Russell, W8BU, reminds us that it wasn't always so.

Russell, formerly 8BU, is a retired attorney from a suburb of Cleveland, Ohio, and recently applied for membership in the Courage HANDI-HAM System. His card touts the fact that he was one of about 30 American ham operators who took part in the first successful Transatlantic Sending Tests in 1921.

The tests, conducted by the ARRL, marked the beginning of worldwide Amateur Radio communications as we know it today. Details of the epoch-making accomplishment were documented in the January 1922 issue of QST.

The December 1921 tests were actually the second attempt at verifiable transatlantic transmissions by amateurs. The first test failed several months before. Although American ship operators had reported hearing signals from American amateurs during transatlantic runs prior to the tests, there was considerable doubt that the low-power, shortwave transmissions of amateurs could be heard across the Atlantic.

In 1921, the ARRL took responsibility for the transatlantic tests. Given the state of commercial communication and transportation at the time, elaborate arrangements had to be made.

The ARRL sent an American listener to England to supplement the efforts of the British amateurs and facilitate "free-for-all" periods of the testing, which gave all amateurs in the United States a chance to participate in the tests. Paul F. Godley, then considered "America's most expert operator in the reception of shortwave signals," was chosen as the overseas listener.

Godley had originally planned to use the receiving station of Commander Frank Phillips near London, but initial results there were discouraging and he moved to Ardrossan-Moor in Scotland. There he erected a tent with lantern and oilstove and a 1,300 ft. long "Beverage" wire antenna for his temporary station. Godley was accompanied by an official listener, D.E. Pearson of the Marconi Company in Glasgow, to watch and verify the reception of every signal.

For six hours each night, 07-16 December, transmissions were made by amateurs in America, and watch was kept by Godley in Scotland. Each night was divided into two parts.

The first part, from 7:00 to 9:30 p.m. EST, was a free-for-all period consisting of 10 periods of 15 minutes each. During each period, all amateurs in a given inspection district called "test" and signed. The periods were rotated so that all districts would have an equal chance of being received.

The second part of each night, from 9:30 p.m. to 1:00 a.m. EST, was devoted to individual stations which had been chosen earlier as the best American stations through preliminary qualifications. The preliminary qualification criterion was that the station be able to cover 1,000 miles overland.

Sealed secret cipher combinations were assigned to qualifying stations, along with individual transmission schedules. These selected stations transmitted for rotating 15-minute periods during the second half of the test period each night.

Although the ciphers and calls of several American stations were heard during the testing period, the distinction of sending the first amateur transatlantic-message ever goes to E.H. Armstrong, 1BCG, Greenwich, Connecticut. The message, which carried congratulations to Godley from the ARRL, was received on 12 December 1921 and was acknowledged by Godley by cable.

An interesting sidelight is that the very first signal heard in the test came from 1AAW, who was later determined to be operating an illegal station. 1AAW declined stepping forward to claim the honor of being the first station heard overseas.

Elation over the successful transatlantic testing prompted the following prediction in **QST** more than 60 years ago:

"It is with much trepidity that we venture to talk of the future. Who can say? But surely these accomplishments open the road to a broader field of Citizen Radio.

"The scientific world is startled at our ARRL's achievement. In the most graphic way, we have demonstrated the high radiation efficiency of the shortwaves. To put a message across the Atlantic on less than 1 kilowatt! *It was done.* To cross the Atlantic on antenna powers of 50 watts or less! *It was done.* To get over on wavelengths sometimes under 200 meters, with our aerials that are as grasshoppers to the commercial stations. *That too was done.*

"We sincerely hope that — as a result of these tests — amateurs not only in Britain but on the Continent as well, will be inspired to get into the relay game and duplicate our feat in the reverse direction, giving us the opportunity to repay our debt to them; that being shown possible, one-way amateur traffic to England and other countries may begin soon on schedule; and that the British authorities in particular will be so impressed by the potentialities of such work as demonstrated by our tests that the amateur restrictions in that country may soon be sufficiently modified to give hope to two-way amateur communication across the Atlantic.

"Surely radio has been given added impetus by these tests, and certainly the day of International Private Radio has been brought closer!"

—HANDI-HAM World □

Ham heads writers

Recently, Ernie Lehman, K6DXK, was elected president of the prestigious Writers Guild of America, West. He now presides over 6,300 members of the group whose members provide scripts seen on screens of motion picture houses as well as television sets, etc.

Himself a top screen writer, he is known to us as author of the novel, *The French Atlantic Affair,* which included a great deal about Amateur Radio.

Another ham — Mel Shavelson, W6VLH — was a previous president of the writers' organization. □

FM-2033

2m C-MOS MICROPROCESSOR CONTROLLED
DIGITAL SYNTHESIZED FM TRANSCEIVER

6 in 1

Exclusive KDK 6 in 1 control is now joined by 6 exciting new KDK features:

NEW! % Soft Orange background Liquid Crystal Display (LCD) for direct sunlight viewing plus lighting for night viewing.

NEW! % Offset (+, −, S) stored in memory along with the frequency information.

NEW! % Frequency coverage of 142.000 to 149.995 MHz for M.A.R.S. and C.A.P. usage.

NEW! % Chrome front panel with accent knobs and lighter color on case to match today's auto decor.

NEW! % Scan for signal now has 3-second delay before resume after loss of signal.

NEW! % Repositioned controls for more convenient operation.

The Exclusive KDK 6 in 1 Knob.

- Only memories with data are scanned; blanks are skipped.
- Complete memory back-up with power unplugged. Re-chargeable Ni-Cd with capability of several months back-up of memory.
- Single frequency sub-audible tone generator included as a standard feature.
- Tone unit switch on front panel to prevent "humming" on the wrong channel.
- Repeater input monitor capability with the push of a single momentary switch.
- Solid-state level meter for both output level and input level monitoring.
- User programmable initial characteristics for band limits, channel step size, etc.
- Odd repeater splits can be handled with the memory in the AxB mode.
- Programmable band-scan limits are stored in protected RAM.
- Modular construction with pluggable interconnecting wiring.
- Touch-Tone* microphone TM-2 is standard with each radio.
- Change channels, skip-scan or step up and down the band from TM-2 microphone.
- Audible beep for end-of-band or last memory location for better "eye's off" operation.

The KDK FM-2033 represents a significant advance in user convenience and simplicity of operation for the radio user. The KDK '33' series of transceivers provides excellent readability in any lighting condition for either the operating frequency or the memory channel number in use. The use of a warm orange background for the LCD displays improves the readability by providing an easy on the eyes contrast improvement.

Simplicity of operation has always been the mark of the KDK design team and the FM-2033 is no exception. From the single knob frequency and memory selection to the automatic recall of the desired repeater offset from memory, the FM-2033 continues to provide relaxed, comfortable mobile operation.

Once the 10 memory frequencies have been selected, a single knob is all that is required for operation on the standard simplex or repeater channels. Using the audible beep as the end of memory marker allows setting to a particular channel without even looking at the radio.

In the scan mode, scanning for a busy memory or pre-programmed band scan keeps you up to date on the happenings in the area. Very busy frequencies can be skipped by using the up key on the TM-2 microphone. If a full 10 memories are not used, the unused ones can be marked for scan skip so that no time is wasted checking them.

The FM-2033 provides a clean 25 watt output signal across 142 - 149.995 MHz to operate in balance with most repeater signals and provide quieting on the simplex operations. M.A.R.S. (NAVY too!) and C.A.P. frequencies are also accommodated.

You want convenience, reliability and easy operation for your mobile station and a tough to beat dollar value. Check out the FM-2033 at your local dealer TODAY or send a QSL for specifications.

* Touch Tone is a Registered Trade Mark of American Telephone and Telegraph.

Specifications are nominal and are subject to change. All KDK transceivers meet or exceed FCC regulations regarding spurious emissions.

KDK

Distributed by
Encomm, Inc.
2000 Avenue G, Suite 800 Plano, Texas 75074
Phone (214) 423-0024 TLX 79-4783 ENCOMM DAL

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

Sealed connectors

A new line of English-made sealed connectors for use in hostile environments, named "Buccaneer", has been announced by RADIOKIT, the U.S. Agent. The connectors, which are made in bulkhead, chassis and in-line styles, are available in 2, 3, 6 and 7-pin configurations, as well as 50 or 75 ohm BNC (coaxial) types for HF and VHF radio. They are waterproof, dustproof, rugged and reasonably priced. The use of screw terminals or crimp connections provides ease of wiring and results in a surprisingly small size unit.

Originally designed for marine applications where the connecting/disconnecting of power and signal equipment is desired, (i.e., searchlights, generators, radios, radars, sonars, masthead antennas etc.), these connectors can be used in most applications where reliability is essential. Other suggested uses are in dusty or damp locations and places where a connection is subject to physical abuse.

The units are molded in a high-density fiberglass-filled nylon. At the cable entry end, waterproof grommets may be changed for different cable diameters. The mating seal is achieved by a compressed O-ring. Each connector has its own captive screw-down weatherproof cap, which also serves as a tool for assembly and disassembly of the connector. The 3-pin version is rated 10A at 250V.

Prices range from $4 to $9 each, depending on the type of connector. U.S. Agent: RADIOKIT, Box 411, Greenville, NH 03048; (603) 878-1033. Dealer inquiries invited. □

Mobile transceiver

ICOM proudly presents the IC-37A 220 MHz ultra-compact mobile transceiver. The IC-37A features:

25 watts/5 watts low; 32 PL frequencies — standard, built-in; nine memories with offset and PL storage; dial steps — 10 kHz/5 kHz; scanning — memory scan, band scan and priority scan; dual VFO's; HM-23 Touchtone® and scanning mic standard; speech synthesizer option; Nor/Rev switch. Dimensions are 5-½" × 5-½"W × 1-½"H × 7"D — same compact design as IC-27A.

The transceiver was featured at the Dayton Hamvention, in the ICOM booth.

For information on ordering, write to: ICOM AMERICA, Inc., 2112-116th Ave. NE, Bellevue, WA 98004. □

SSB/FM microphone

Radio amateurs have historically been forced to use microphones that were designed for other purposes, such as industrial paging, public address or tape recording. "Matching" microphones usually means they are painted the same color as the radio.

The engineers at Heil Sound introduced a brand new microphone designed especially for SSB and FM communications. Using their much-heralded HC-3 dynamic "key element", the HM-5 microphone gives enhanced intelligibility, maximum articulation and clean, natural audio.

The HM-5 utilizes a die-cast steel, not plastic, base with a heavy chrome gooseneck. A large push-to-talk (PTT) bar with locking switch allows for smooth PTT operation. The HC-3 "key element" is wired straight through for proper VOX operation without any external switching.

The HM-5 is a stunning addition to any station and will be the answer to getting those signals "on top". *Sensitivity*: -70dB. *Frequency response*: 300 Hz-4000 Hz with a very defined rise at 2100 Hz. *Impedance*: 2,000 ohms. The element works well at 600 ohms, but will need matching transformers when used with high-impedance inputs. *Polar pattern:* cardioid pattern forward. *Cable:* 1 audio lead in heavy wrapped copper shield, 1 PTT line. *Price:* $54.95.

•

The newly designed HC-5 "key element" from Heil, Ltd. is a special element designed small enough to fit right inside of the ICOM SM-5 and SM-6 desk microphone.

The HC-5 has been designed to have maximum speech articulation for getting through the noise and pile-ups, and adds tremendous clarity to the new series of ICOM transceivers. The pre-amp section of the original ICOM microphone is used as normal. The dynamic HC-5 just replaces the original electret cartridge in the SM-5. Very easy to install.

Frequency response: 350-4000 Hz. *Sensitivity:* -68dB. *Impedance:* 2000 ohms. *Polar pattern:* cardioid pattern forward. *Price:* $22.95.

For information on ordering, write to Heil, Ltd., No. 2 Heil Industrial Dr., Marissa, IL 62257. □

Low-noise preamp

Hamtronics, Inc. has just announced a new low-noise preamp, using a new dual-gate GaAs FET recently designed especially for service in the VHF/UHF bands. Up until now, to get the low-noise figure of a GaAs FET, a designer had to adapt a transistor really intended for microwave service. They work well, but they cost more than they should, and the devices tend to oscillate because they have so much gain at the lower VHF and UHF frequencies. Also, being a single-gate device, they tend to have the characteristically high feedback capacitance associated with triodes. This makes them hard to tame under a wide variation in load impedances.

The new LNG-( ) series of preamps solves these problems, providing good gain, moderately low-noise figure (0.7 to 0.8dB, depending on band) and low cost. The LNG-( ) series preamps are only $49, compared to anywhere from $80 to $125 for the earlier type of GaAs FET preamps.

GaAsFET's typically give a wide dynamic range for good overload characteristics, and this unit is no exception. Additionally, the new dual-gate devices used in the LNG have built-in diode protection to reduce the chance of damage due to static and transients.

Units operate on standard +12 to +14VDC, and they are easy to tune. The case allows for easy mounting anywhere, including the tops of towers. LNG preamps are available for all ham bands, 10 meters through 450 MHz.

For more information, including a free catalog on other Hamtronics® products, call (716) 392-9430, or write to Hamtronics, Inc., 65 Moul Rd., Hilton, NY 14468-9535. (For overseas mailing, please send $2 or 4 IRC's.) □

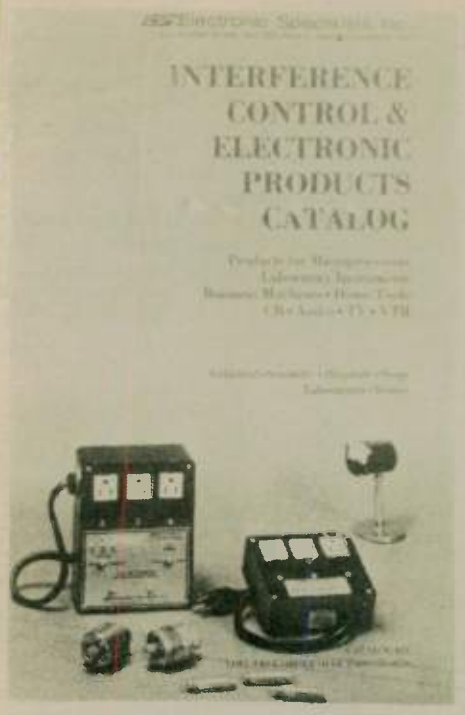
Robot 800 terminal

Robot's new 800C Specialty Mode Terminal is an improved version of their popular Model 800 Super Terminal. The 800 provides Amateur Radio operators an all-in-one package with display, storage and automatic operation for the transmission and reception of RTTY and Morse code signals.

A major feature of the 800 is its built-in demodulator which uses separate active discriminator filters for the demodulation of the RTTY signal. Key features of the new 800C terminal include a 1023-character transmit buffer; 10 64-character message memories with soft partitioning; an RS-232 serial and centronics parallel printer interface; color SSTV graphics capability with eight graphics memories (when used with Robot's new color scan converters); and battery back-up on all memories. These new features are also available in a retrofit kit for existing model 800's.

For additional information, contact Robot Research, Inc., 7591 Convoy Ct., San Diego, CA 92111; (619) 279-9430. □

Pass it on . . . WORLDRADIO



Equipment protection catalog

A new 40-page catalog from Electronic Specialists presents their line of communication equipment protective and interference control products. Protective devices for smooth, quiet communications include Equipment Isolators, AC Power Line filter/suppressors, AC Line Voltage Regulators and Modem Surge Suppressors.

Descriptive sections are included, outlining particular communication problems together with suggested solutions. Typical product applications and uses are highlighted. Request catalog 831.

Write to: Electronic Specialists, Inc., 171 South Main St., Natick, MA 01760; (800) 225-4876. □

Selective Call Controller

Acquis Communications, Inc. has introduced the SCC-1 Selective Call Controller. This unit is designed for use with mobile or base FM radio systems.

The SCC-1 features include: a Touch-Tone encoder, 10-number auto dialer with battery backup. a Touch-Tone decoder with two programmable selective call codes for group or individual calls; an internal monitor speaker; LED displays for call status; and an accessory relay for control of external devices.

The small size of the SCC-1 (3" × 4" × 2") and flexible mounting hardware makes it easy to adapt for either mobile or base station applications. A mobile mounting bracket and protective desk pads are included to make installation easy.

The SCC-1 is particularly useful for emergency groups such as RACES or radio clubs. The selective call feature with programmable call codes allows for group or private monitoring of radio communications.

The list price is $325. Dealer pricing is also available. For more information, contact Acquis Communications, Inc., 17192 Gillette Ave., Irvine, CA 92714; (714) 545-3732. □

Repeater amplifier

Falcon Communications, the leader in MOSFET RF power, announces their new model 4114 2-meter repeater amplifier, bringing the low-noise advantages of MOSFET's to repeater service.

The model 4114 is a basic 2-meter amplifier that supplies a full 100 watt output when driver with 2 watts. Features include:

1) Carrier operated relay or external keying.

2) Operates from 13.8 volts DC, either from a battery or power supply.

3) Operates "straight through" on power failure. Useful for those repeater operators who wish to operate on low-power, battery backup when main power source fails.

4) Regulated bias supply. Adjustable for limited power output adjustment.

5) Mounted on standard 8¾" × 19" relay rack panel. A large 8¼" × 13½" heatsink mounted on front of panel supplies cooling.

6) Thermostat prevents any damage in the event of possible overheating. Unit operates "straight through" when thermostat actuates

Other units in this series supply maximum power outputs of from 50 to 100 watts and accept drive levels up to 25 watts.

For information on ordering, write to Falcon Communications, P.O. Box 620625, Woodside, CA 94062. □

Noise Maker, switch

The Noise Maker was originally conceived to assist those with hearing problems for code, as it is usually generated. In the vast majority of cases, we listen to code in the form of a keyed tone — usually pure — somewhere in the range from 500 to 1000 Hz. But it seems this kind of sound is troublesome for some listeners, so I put together a white-noise generator with a keying circuit designed to enable fast, click-free keying.

The idea: spread the energy over a wide audio spectrum expecting enough sound energy within a person's hearing sense capability to enable reception. In addition, it was speculated that the excitation of "ringing", which may be experienced when one tries to listen to a keyed tone under conditions of a "notched" hearing sense, could be avoided.

Also, since the sound energy generated is low within any particular narrow frequency range, one will not be irritated by the high level of any particular tone that may be troublesome for them. Finally, white noise is a more natural form of sound energy than a pure tone, so it may cause less fatigue.

This idea was described in the October 1983 issue of QST, and data is still coming in. I hope to have a body of testimonial results within a year or so.

Although I don't have a problem with conventional code practice oscillators, I just like the sound of this keyed noise generator. To make it inexpensive for you to try, I have developed a circuit using low-cost parts and assembly methods.

Knowing that you may want to listen to code in the form of white noise from your practice oscillator tape or from your receiver, I have also designed an electronic switch, on a small PC board, that enables you to process these devices to drive Noise Maker.

The Noise Maker is available for $12.95, plus $2 shipping and handling. The Electronic Switch is $7, plus $2 shipping and handling. For more information or to order, write to: Hildreth Engineering, P.O. Box 60003, Sunnyvale, CA 94088. □

RF processor

This MAGICOM RF Processor has been custom-engineered to upgrade the FT-102 to include the MAGICOM method of RF clipping. Installation of the MAGICOM will greatly increase the effectiveness and ease of adjustment of the FT-102 processed signal. The MAGICOM-upgraded processor will increase average signal power to the antenna by as much as 6dB! In addition, a significant "talk power" improvement will be realized over the existing FT-102 processor.

Installation of the MAGICOM is straightforward. The only tools required are a low-wattage soldering iron, a needle-nose and diagonal pliers, and a small Phillips screwdriver. Supplies required are a small length of rosin flux solder and a small piece of "solder-wick." The installation of the MAGICOM into the FT-102 does not require drilling any holes or other non-reversible modifications to the equipment.

The MAGICOM is electrically connected into the IF unit (PB2343A) circuit board and physically installed within the FT-102 cabinet. While the installation requires a minimal amount of rework, the construction and layout of the FT-102 are complex, making patient and careful workmanship a necessity. It is recommended that sufficient time be spent prior to modification to allow a thorough understanding of the equipment and the work to be accomplished.

The Magicom RF Speech Processor for Yaesu FT-102 is available directly through International Radio, Inc. for $35, plus $3 shipping and handling. Write to International Radio, Inc., 364 Kilpatrick Ave., Port St. Lucie, FL 33452. □

World Wide South America Contest

The World Wide South America CW Contest (WWSA) will be held 09-10 June, from 1500 UTC Saturday to 1500 UTC Sunday. The contest is sponsored by **Eletronica Popular Magazine**, Rio de Janeiro, Brazil; and supervised by Argentine CW Group (GACW) of Buenos Aires, Argentina, and Pica-Pau Carioca Group (PPC) of Rio de Janeiro, Brazil.

Bands: 3.5 to 28 MHz, CW only. Cross-band contacts are not valid.

Purpose: Contacts between South American stations and stations on other continents.

Call: CQ SA TEST.

Exchange: RST/QSO number starting from 001.

Points: Each QSO counts 2 pts. A station may be worked only once on each band. Same country contacts are not valid. Contacts between South American stations only as multipliers, not as QSO points.

Multipliers: *South American stations* — the different countries worked in each band (DXCC list) *Other stations* — the different South American prefixes worked in each band.

Score: The final score is the sum of QSO points × the sum of multipliers.

Class: Single-operator/single band or all bands; multi-operator single transmitter (multi-band only).

Logs: A separate log for each worked band must be sent no later than 31 July 1984 to WWSA Manager, P.O. Box 18003, 20772 Rio de Janeiro, RJ, BRAZIL. □

Contact Worldradio for hamfest prizes.

25th All Asian DX Contest

The 25th All Asian DX Contest will be held 16-17 June (Phone) and 25-26 August (CW). Operation hours will be 48 hours each weekend, from 0000 UTC Saturday to 2400 UTC Sunday. The purpose of the contest — which is being sponsored by the Ministry of Posts and Telecommunications of Japan — is to enhance the activity of radio amateurs in Asia and to establish as many contacts as possible during the contest periods between Asian and non-Asian stations.

Bands: Amateur bands under 30 MHz.

Classifications: 1) Single operator — 1.9 MHz (CW only); 2) Single op — 3.5 MHz; 3) Single op — 7 MHz; 4) Single op — 14 MHz; 5) Single op — 21 MHz; 6) Single op — 28 MHz; 7) Single op — Multi-band; 8) Multi-operator — Multi-band.

Power, type of emission and frequencies: Within the limits of own station license.

Contest call: *Asian stations* — (Phone) "CQ CONTEST"; (CW) "CQ TEST". *Non-Asian stations* — (Phone) "CQ ASIA"; (CW) "CQ AA"

Exchange: OM stations — RS(T) report plus two figures denoting operator's age. YL stations — RS(T) report plus two figures "00 (zero zero)"

Restrictions: 1) no contact on crossband; 2) for participants of single op's entry — transmitting two or more signals at the same time, including cases of different bands, is not permitted; 3) for participants of multi-op's entry — transmitting two or more signals at the same time within the same band, except in case of different bands, is not permitted.

Points: *Asian stations* — perfect contact with non-Asian stations will be scored as follows — 1.9 MHz, 3 pts.; 3.5/3.8 MHz, 2 pts.; other bands, 1 pt. *Non-Asian stations* — perfect contact with Asian stations (excluding U.S. auxiliary military radio stations in the Far East, Japan) will be counted as follows: 1.9 MHz, 3 pts.; 3.5/3.8 MHz, 2 pts.; other bands, 1 pt.

Multipliers: *Asian stations* — the number of different countries in the world worked on each band, according to the DXCC countries list; *non-Asian stations* — the number of different Asian prefixes worked on each band, according to the WPX Contest rules.

JD1 stations: JD1 stations on Ogasawara (Bonin and Volcano) Islands belong to Asia; JD1 stations on Minamitori Shima (Marcus) Island belong to Oceania. Contacts among Asian stations and among non-Asian stations will count as neither points *or* multipliers.

Scoring: Sum of contact points on each band x sum of multipliers on each band.

Log sheets: Use separate sheet for each band. Keep all times in UTC. Fill in blanks of "multiplier" by countries or prefixes, only the first time on each band.

Awards: For both Phone and CW, certificates will be awarded to those having the highest score in each entry in proportion to the number of participants from each country, and also those from each call area in the United States.

1) The number of participants under 10 — award goes only to highest scorer; 2) from 11 to 20 — award up to the runner-up; 3) 21-30 — award up to top third; 4) 31 or more — award up to top fifth. The highest scorer in each continent of the single operator multi-band entry will receive a medal and certificate from the Minister of Posts and Telecommunications of Japan. The highest scorer of the multi-operator multi-band entry in each continent will receive a medal.

Reporting: Submit a summary sheet and logs of only one classification. Both log and summary sheet must arrive at JARL, P.O. Box 377, Tokyo central, JAPAN, on or before the following dates — (Phone) 30 September 1984; (CW) 30 November 1984.

Disqualifications: violation of contest rules; false statement in the report; and taking points from duplicate contact on the same band in excess of 2 percent by the total.

Contest results will be announced around February 1985 (Phone) and April 1984 (CW). To receive the results, enclose 1 IRC and SAE with log.

Countries List of Asia

A4	UJ8/UK8J. R.
A5	UL7/UK7
A6	UM8/UK8M. N.
A7	VS6
A9	VS9M/8Q
AP	VU
BV	VU (Andaman & Nicobar Is.)
BY	VU (Laccadive I.)
CR9	XU
EP	XV 3W
HL/HM	XW
HS	XZ
HZ/7Z	YA
JA-JS	YI
JD 1 (Ogasawara Is.)	YK
JT	ZC4/5B4
JY	1S (Spratly I.)
OD	4S
S2	4W
TA	4X/4Z
UA/UK/UV/UW9-0	7O (S. Yemen)
UD6/UK6C. D. K.	9K
UF6/UK6F. O. Q. V.	9M2 (West Malaysia)
UG6/UK6G	9N
UH8/UK8H	9V (Singapore)
UI8/UK8A-G.I.L.O.T.Z.	(AbuAil)

9-Land CW Contest

The Joliet Amateur Radio Society announces the 2nd Annual 9-land CW Contest, to be held for a 24-hour period, 16-17 June. Times will be 1700Z, Saturday, 16 June, to 1700Z, Sunday, 17 June.

Everybody work everybody — call CQ9TEST. Stations may be worked only once per band.

Categories of operation: *Single operator* — one transmitter; *Multi-operator* — one transmitter; *Multi-operator* — portable, field conditions, maximum two transmitters.

Frequencies: 1.805 and 60 kHz up from lower edge of 80, 40, 20, 15 and 10 meters. *Novices* — 25 kHz up from lower edge of Novice bands.

Exchange: Consecutive serial number, beginning with 001, and state/province/DX country.

Scoring: Contacts with 9-Land stations (Illinois, Indiana, Wisconsin) count 2 QSO pts. each. Contacts with other than 9-Land stations count 1 QSO pt. each. *Multipliers* — total of states, provinces and DX countries worked (count first time worked only). *Bonus multipliers* — 1 extra multiplier for every 20 9-Land stations worked.

Awards: Certificates to high score in each category in each state, province and DX country. Plaques to high score in 9-Land and high score outside of 9-Land.

Reporting: Dupe sheets are required for more than 200 contacts. Logs must be

California

The SATELLITE ARC will hold its 1984 Santa Maria Swapfest and Santa Maria Style Barbecue on the Union Oil Company picnic grounds, just south of Santa Maria, California, on Father's Day, 17 June. General admission will be at 9:00 a.m. and the barbecue will be served at 1:00 p.m.

For further information, to order tickets, or to reserve a swap table, please write to Satellite ARC Swapfest, at P.O. Box 5117, Vandenberg Air Force Base, CA 93437. □

Idaho

The KOOTENAI AMATEUR RADIO SOCIETY presents Hamfest '84 at the North Idaho Fairgrounds, Coeur D'Alene, Idaho on 09 June, from 8:00 a.m. to 4:00 p.m. Swap tables will be available at no charge.

Hourly drawings will be held for a wide variety of prizes, including prizes for the ladies. RV's are welcome, but there will not be any hook-ups available at the site. Come early for our annual Friday program, which will include a potluck and dancing afterward. A grand prize drawing will be held at 4:00 p.m., with a choice of one of four prizes available, consisting of 2-meter ICOM gear.

For more information, write Avon Anderson, WB7WBZ, N. 1035 Highland Ct., Post Falls, ID 83854. □

CONTESTS

(*continued from page 48*)

postmarked by 21 July 1984. Enclose business-size SASE for results. Send logs, dupe sheets and summary sheet to: Paula Franke, WB9TBU, P.O. Box 873, Beecher, IL 60401. □

10th Annual Summer SMIRK Party

The 10th Annual Summer SMIRK Party, sponsored by the Six-Meter International Radio Klub, will be held 15-17 June. Operating times will be from 1900 CDT, Friday, 15 June to 1900 CDT, 17 June, or 0000 UTC, 16 June to 2400 UTC 17 June.

Operation: Exchange SMIRK number and ARRL section or foreign state, province, prefecture or country. Under SMIRK rules, count ARRL sections in the 48 U.S. states only. KH6 and KL7 count as countries. Washington, D.C. counts as a section. Canadians count as provinces. All others count as states, provinces, prefectures or countries. No crossband contacts, multi-operators or partial contacts. Check logs or dupe sheets are not required.

Scoring: Count 2 pts. for each SMIRK contact. 1 pt. for non-SMIRK. Total SMIRK + total non-SMIRK × total number of ARRL sections, foreign states, provinces, prefectures or countries worked = claimed score.

Awards: Certificates for high score SMIRK in two divisions: U.S./Canada and foreign. Certificates for high score in each ARRL section and foreign state, province, prefecture or country.

Entries: Entries, to be eligible, must be submitted on the Fall 1981 edition of the Official SMIRK Log. Send log requests (SASE) and entries (postmarked not later than 08 July 1984) to: Mark S. Anderson, WB5NPK, 8932 Saddle Trail, San Antonio, TX 78255.

Illinois

June 3, 1984 is the date of the STARVED ROCK RADIO CLUB Hamfest to be held at the Bureau County Fairgrounds in Princeton, Illinois.

Usual features; free swap area; free coffee and doughnuts to each registrant at 8:00 a.m.; exhibits by commercial vendors; ARRL seminar; plenty of parking; good food on the grounds. Registration is $2.50 before 20 May, $3 at the gate.

Talk-in on 147.12/72, 146.07/.67 and 146.52 simplex.

SASE after 01 April for complete information, map and registration materials. Write to: SRRC/W9MKS, RFD #1, Box 171, Oglesby, IL 61348; phone (815) 667-4614. □

Sunday, 10 June, is the date of the SIX METER CLUB OF CHICAGO's 27th Annual Hamfest. It will be held at Santa Fe Park, 91st and Wolf Road, Willow Springs, Illinois (southwest of Chicago).

Advance registration is $2; at the gate $3. Gates open at 6:00 a.m. There will be a large swapper's row, displays, AFMARS meeting, prizes and refreshments. Plenty of parking space.

Talk-in on K9ONA, 146.52 or K9ONA/R 37-97.

For more information or to order advance tickets, contact: Val Hellwig, K9ZWV, 3420 So. 60th Ct., Cicero, IL 60650. □

Indiana

The 38th Annual Wabash Valley Amateur Radio Hamfest — sponsored by the WABASH VALLEY AMATEUR RADIO ASSOCIATION — will be held Sunday, 03 June, at the Vigo County Fairgrounds, Terre Haute, Indiana, located on US-41, a quarter mile south of I-70. Open Saturday for overnight campers ($5 fee); open Sunday 0800 EST.

Free outdoor flea market; covered flea market $3 for a 12' × 12' space. Some AC and tables available on a first-come basis. Food and refreshments. Giant shopping mall nearby. Computer and packet radio forums, also. Advance registration $2 or three for $5; $3 at gate; children under 12 free.

Talk-in 25/85 and 52 simplex.

For tickets and information, SASE to WVARA Hamfest, P.O. Box 81, Terre Haute, IN 47808. □

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The LAKE COUNTY ARC will hold its 12th Annual "Dad's Day" Hamfest, 17 June, at the Lake County Fairgrounds, Industrial Arts Building, in Crown Point, Indiana.

The hamfest will be held indoors, 8:00 a.m. till 2:00 p.m. There will be plenty of parking, food and prizes. Tickets are $2.50.

Talk-in on 147.84/24 or 52.

For further information, contact: Bill De Geer, W9TY, Hamfest Chairman, 3601 Tyler St., Gary, IN 46408. □

Kentucky

The KENTUCKY COLONELS ARC announces the Bowling Green Hamfest, to be held Saturday, 09 June, at the Southern Kentucky Fairgrounds in Bowling Green.

An air-conditioned inside flea market, a large outside flea market (no set-up fee) and prize drawings will be held. Proceeds will go for emergency communications equipment.

Talk-in on 146.85 and 146.52.

For more information, contact Ed Gann, N4HID, Rt. 19, Box 92, Bowling Green, KY 42101; (502) 843-8911. □

Maryland

The FREDERICK ARC will hold its 7th Annual Hamfest, 17 June, at the Frederick Fairgrounds. Hours will be 8:00 a.m. to 4:00 p.m. Gates open for exhibitors at 8:00 p.m., Friday the 16th, with overnight security provided. Overnight parking welcomed.

Admission $3; YL's and children free. Tailgaters extra $2. Exhibitor tables $10 (for one); $5 per each additional table.

For additional information, contact: Jim Devilbiss, WA3FUJ, 915 Pine Ave., Frederick, MD 21701; (301) 662-5784. □

Michigan

The Chelsea Swap and Shop, sponsored by the CHELSEA COMMUNICATIONS CLUB, will be held on Sunday, 03 June, at the Chelsea Fairgrounds, Chelsea, Michigan.

Gates will open for sellers at 5:00 a.m. and for the public from 8:00 until 2:00 p.m. Donation is $2.50 in advance and $3 at the gate. Children under 12 and non-ham spouses are admitted free.

Talk-in on 146.520 simplex and 147.855 Chelsea repeater.

For more information, write William Altenberndt, 3132 Timberline, Jackson, MI 49201.

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The INDEPENDENT REPEATER ASSOCIATION of Grand Rapids, Michigan will hold its annual "Hamfestival" on Saturday, 30 June, from 8:00 a.m. until 4:00 p.m. (dealer set up at 6:00 a.m.), at the Wyoming National Guard Armory on 44th Street, just west of the US-131 Expressway.

Free table space will be provided to all sellers. Admission is $3.50. Programs include satellite operation, packet radio, W5LFL space shuttle movie, AMTOR Forum, CW RX Contest, Antenna Forum and shack picture contest, in addition to a 15,000 sq. ft. swap area. Prizes include a 50-channel scanner, AM/FM/SW radio, 2-meter antenna and a special 50/50 drawing.

Talk-in on 147.165/147.765.

Advanced table reservations accepted, or for more information, call Linda Hurley, WD8OHW, at (616) 457-1253. Or write IRA, 562-92nd Street SE, Byron Center, MI 49315. Dealers welcome! □

Minnesota

The NORTH AREA REPEATER ASSOCIATION will sponsor the state's largest swapfest and exposition for Amateur Radio operators on Saturday, 02 June, at the Minnesota State Fairgrounds in St. Paul.

Free overnight parking of self-contained campers on 01 June. Call wide area repeaters 25/85 or 16/76 for directions. Exhibits, booths, giant outdoor flea market and prizes. Admission $4.

For more information or dealer inquiries, write Amateur Fair, P.O. Box 857, Hopkins, MN 55343. Or call (612) 420-6000. □

Ohio

Hamboree '84, sponsored by the CHAMPAIGN-LOGAN ARC, will be held Sunday, 10 June, at the Logan County Fairgrounds, East Lake Street, Bellefontaine, Ohio. Gates open at 8:00 a.m.

Tickets are $2 in advance, $2.50 at the door. Tables $3 (no trunk sales). Plenty of free parking at the fairgrounds. Grand prize drawing at 3:00 p.m. Lots of prizes, food and fun.

Talk-in and directions on 147.60/00; mobile check-in on 146.52 simplex.

For ticket information, write to Steve Kidder, N8ETD, Box 265, Russells Point, OH 43348; or call (513) 843-6099. □

Pennsylvania

The 30th Annual BREEZE SHOOTERS Hamfest is Sunday, 03 June, from 9:00 a.m. to 4:00 p.m., at the White Swan Amusement Park, Pennsylvania Rt. #60, (Parkway West), near Greater Pittsburgh International Airport. *Free* flea market spaces, *free* admission. Family amusement park, food on site.

Registration is $2 or three for $5. Under-roof tables for vendors by advance registration only.

Talk-in on 28/88 or 29 MHz.

For further info, please contact Don Myslewski, K3CHD, 359 McMahon Road, North Huntingdon, PA 15642; telephone (412) 863-0570. □

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The MURGAS ARC (K3YTL) will sponsor the annual Wilkes-Barre Hamfest on Sunday, 03 June, at the 109th Armory, Market St., Kingston (across the river from Wilkes-Barre).

Set-up only at 6:00 a.m.; general admission at 8:00 a.m. Admission is $3; XYL's and children under 16 free. Tailgating is $2 per space. Tables and commercial power available. Rain or shine, indoor and outdoor tailgating.

Talk-in on 146.01/61 and .52 simplex.

For further information, write to: Hamfest Committee, P.O. Box 1094, Wilkes-Barre, PA 18703. □

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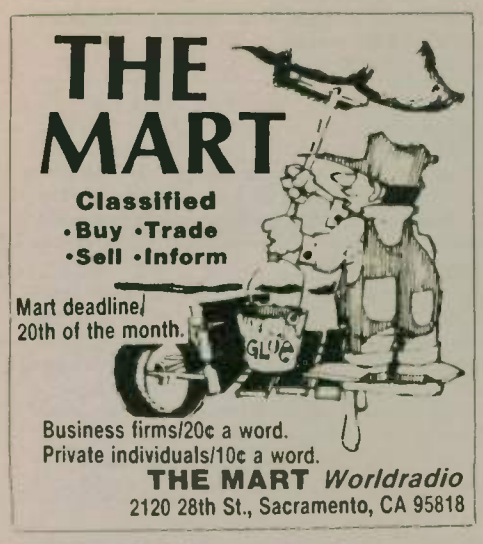
The MILTON ARC will hold their 13th Annual Hamfest on Sunday, 10 June, rain or shine, at the Winfield Fire Company grounds on Route 15, south of Lewisburg, Pennsylvania, and 8 miles south of Exit 30 on I-80. Hours will be 8:00 a.m. to 5:00 p.m. Covered spaces are available. Registration $3; wives and children free. Flea market, auction and contests.

Talk-in on 146.37/.97 and 146.025/.625.

For further details, call or write Jerry Williamson, WA3SXQ, 10 Old Farm Lane, Milton, PA 17847; (717) 742-3027. □



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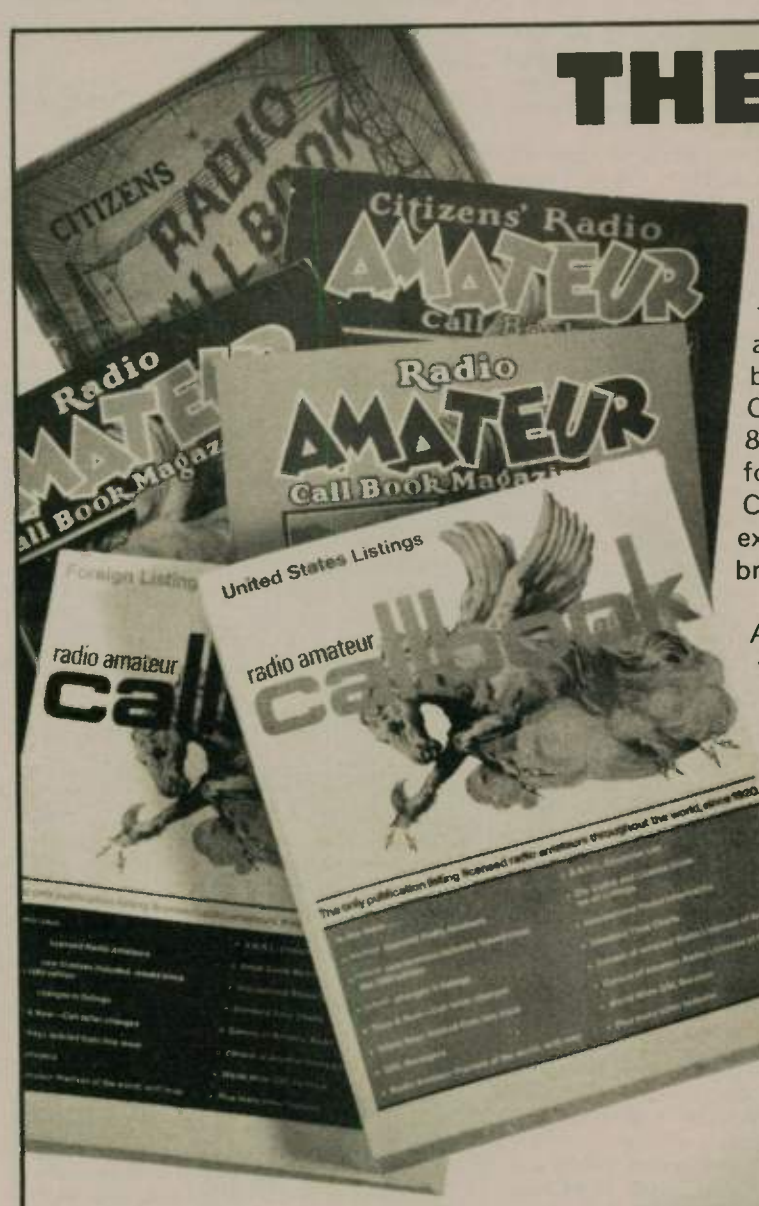

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