Worldradio

Year 12, Issue 12

June 1983 • 80¢

ARRL opposes PR 83-28

The ARRL Board of Directors met in Hartford, Connecticut, 21-22 April. The Board, after extensive discussion, considering the overwhelming opposition of League members to the no-code license, and finding little evidence that the requirement for a knowledge of Morse code is a significant barrier to entry into Amateur Radio, unanimously voted to file comments with FCC opposing, in the strongest possible manner, the creation of an amateur license class that does not require demonstration of knowledge of the Morse code. The Board adopted the position statement, which is the subject of ARRL Bulletin 32.

In other regulatory matters, the Board directed that favorable comments be filed in the FCC proposal to establish 10-year license terms and two-year grace periods. The Board reaffirmed its support of the HF phone band expansion proposed by FCC for the 80, 15 and 10-meter bands, which is consistent with the ARRL proposal as outlined on page 51 of October 1982 QST.

The Board approved a revitalization plan for the Intruder Watch and adopted the recommendation of the VRAC that 2-meter splinter repeater channels be upright east of the continental divide to be phased in over a five-year period. It was voted that Memorandums of Understanding be effected between the League and the National Communications System and REACT International, respectively.

Plans were approved for a more continuous Washington, D.C. presence and for the eventual autonomy of the CRRL over a five-year period. An ARRL Scholarship Endowment Fund honoring Senator Barry M. Goldwater, K7UGA, was established. A pilot program to hold general ARRL membership meetings at the 1983 and 1984 ARRL National Conventions was adopted. Directors Grauer, Holladay, Milius and Nathanson were elected to the ARRL Executive Committee.

The full minutes will appear in June 1983 QST. □

20M expansion

Expansion of the U.S. 20-meter phone band becomes effective on 22 May 1983 at 0001 UTC. The new phone bands will be as follows: 14.150-14.175 MHz — Extra; 14.175-14.225 MHz — Advanced and Extra; 14.225-14.350 MHz — General, Advanced and Extra.

— *ARRL* □

Katashi Nose, KH6IJ, world-famous DXer, was present at the International DX Convention in Visalia, California, 22-24 April. His wife, Matsuyo (left) accompanied him. The following weekend, KH6IJ received the Amateur of the Year Award at the Dayton Hamvention in Ohio. *(Convention photos by Dick Fleming, WA6POC)*

34th International DX Convention

Peter Onnigian, W6QEU

It's everything people said it is, and more! This was the first time I had attended the event, so Worldradio asked me to write about it from the view of a first-timer.

While I have DXCC and the Worldradio W-100-N and am closing in on Honor Roll, it seemed there was always a conflict before with the convention dates, keeping me away. Now that I've been to the DX Convention, it would make a competing event of paramount importance to keep me away.

I can see now why it is attracting the same attendees year after year after year. The 1983 bash on 22-24 April in Visalia, California, attracted an all-time high in attendance, with 590 DXers paying $40, and spouses.

Well worth it! This very social affair had the DX chasers and the chasees in attendance with participants from Swaziland, Qatar, Morocco, England, The Vatican, Saudi Arabia, Japan, Marshall Islands, Denmark, Finland, Sweden, Norfolk Island, Hong Kong and South Africa.

The excitement of DX is in the air. The "Who's Who" are there. In DX, when you say "Martti," you speak of only one, and he was there. The Colvins, just back from operating in a dozen exotic locations, were there. Top contesters were there, and a lot of the rest of us.

How's this for a double-barrelled program: *BOTH* Heard Island expedition

(*please turn to page 10*)

Call signs

On 15 April, the FCC released a Public Notice updating the Amateur Radio Station Call Sign Assignment System. The Notice says the Commission does not intend to reissue unassigned call signs in the foreseeable future. It extends to two years the time in which an expired call sign can be renewed, during which an expired secondary call sign can be transferred to a primary license.

Finally, it sets forth a new prefix block for Desecheo Island, now KP5.

— *ARRL* □

Radio gives space exploration a boost

Astronaut Owen Garriott, W5LFL, will operate an Amateur Radio station aboard the next space shuttle mission, scheduled for September 1983.

On 16 April, NASA officially approved a joint ARRL/AMSAT proposal to include an amateur station aboard the STS 9/Spacelab flight. The joint ARRL/AMSAT proposal calls for ARRL to furnish the special Amateur Radio equipment for use on the shuttle, and to organize and coach amateurs in procedures for rapid and efficient communications with the shuttle.

This operation, which will be on 2-meter FM, will mark the first time in the history of space exploration that the general public will be able to communicate directly with an astronaut in orbit. Details will be forthcoming in QST.

— *ARRL* □

Viet Reds kill DXers

Two West German amateurs died as a result of their DXpedition effort to Spratly Island being fired upon from Vietnamese positions on Ambona Cay.

On 10 April, Diethelm Mueller, DJ4EI, was killed when a shore battery opened up. The 15-minute attack sunk the 51-foot boat and the five survivors escaped in a small dinghy. After eight days without food or water, Gero Band, DJ3NG, died from dehydration and exposure. The next day, Baldur Drobnica, DJ6SI; Norbert Willand, DF6FK; the boat's captain and his wife were rescued by a freighter. All were released from a Hong Kong hospital on 22 April.

In Bonn, the Foreign Ministry said a

(*please turn to page 44*)

Coalinga earthquake

On 2 May, an earthquake of 6.5 Richter magnitude hit the small central California city of Coalinga. Buildings collapsed, gas mains were broken and the smoke from fires could be seen 17 miles away in Avenal where Ted Carlson, KD6YQ, became a communications workhorse.

All evening, Carlson relayed information from HF, in and out of Coalinga, via the 146.88 repeater in Visalia.

As always, WCARS — with Bill Scharz, K6KZI, as net control — played an important role. The Western Public Service System on 3.952 did their usual work that can always be counted on in such emergency situations.

Coalinga was without water, gas or electricity. Lemmore Naval Air Station sent in drinking water; Red Cross and Salvation Army personnel and supplies rolled in. Amateurs were handling messages for the Office of Emergency Services and other agencies.

The Fresno Amateur Radio Club, W6TO, sent in their communications van

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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.

Tangier club station needs equipment

The Tangier (Morocco) Amateur Radio "Class and Club" station (TARS) is now an operating reality, thanks to the hard work and perseverance of the three "Tangerine" amateurs pictured here: CN8DU, CN8DV and CN8CU.

For the past two years, Amateur Radio operators in Tangier have banded together to encourage the sharing of their hobby among all English-speaking members of the local community. Shalva CN8DU and Malti Iyengar, CN8DV, in concert with Wayne Houser, CN8CU, formed the Amateur Radio "class and club" at the American School of Tangier in mid-1981. Club benefactors include: CN2AH, CN2AQ, CN8AT, CN8BP, CN8CV and CN8MT.

Together, CN8DU and CN8DV have taught math and science at the American School of Tangier for 12 years. CN8CU (also KJ6E) is currently a radio engineering supervisor at VOA's Tangier Relay Station. He previously taught electronics at Riverside City College and was first licensed as WV6FAJ in 1959.

Since mid-1981, code and theory classes have been taught evenings at the club station resulting, thus far, in the licensing of the following nine graduates: Saad Eddine Bennani, KA3JHN; David Dankerl, KA2PGB; Shalva Iyengar, KA2PKE; Malathi Iyengar, KA2PPX; Stefano Iachella, KA2QCF; KA2RFY; KA2RTM; and Tony Castracani, KA6UWM. In addition, four have gone on to receive Moroccan licenses: CN8DG, CN8ER, CN8DU and CN8DV. Four others recently took the Moroccan exam and are awaiting the issuance of CN8 calls. Over 40 people are expected to enroll for the fall semester of Amateur Radio classes in September 1983.

The Tangier Amateur Radio Club Station is located on grounds of the American School. Working under the authority of the AST Headmaster, Joseph A. McPhillips III, a storage building was transformed into a fully equipped classroom and club station. Recently, American club members anxious to confirm "CN8" generously donated the Heath DX-60B transmitter (operating on CW), Collins 51-J receiver and Ten-Tec keyer. The 15 and 20-meter inverted Vee antenna was constructed by club members locally.

All in all, the interest shown by the local community and the initial success of this first "class and club" program in Northern Morocco represents a major accomplishment for those who have contributed time and donated equipment to the world's greatest hobby in this "RARE DX" location.

Equipment donations are still needed for the club to achieve SSB capability and to improve the existing antenna system. Donations may be addressed to: Headmaster, American School of Tangier, AmEmbassy/TNG, APO NY 09284, flagged "Radio Club Donations."

Generosity received from clubs and colleagues who respond to this article will be acknowledged in writing and sincerely appreciated for many years to come by all members of the Tangier Amateur Radio Club Station. (Extra pieces of donated equipment will be placed on rotating loan to new CN8 licensees on a tentative assistance basis.)

Footnote: CN8CU will be on home leave in California during the months of July and August 1983. Clubs in California and western Nevada wishing to have him as a guest speaker (between 11 July and 19 August) may telephone (209) 734-8442 in Visalia and provide three alternative attendance dates. Confirmations will be returned by phone during the first week in July. □

The Tangier (Morocco) Amateur Radio "Class and Club" Station, shown here, is now in operation because of the efforts of these three amateurs (left to right): Shalva CN8DU and Malti Iyengar, CN8DV, and Wayne Houser, CN8CU.

ATTN: deaf amateurs

Barry Strassler, KA3KDF, is interested in getting in contact with all deaf and hearing-impaired amateurs. He has raised the question of the desirability of forming some type of deaf ham group.

Please drop Barry a note and let him know your ideas. Contact him at: Telecommunications for the Deaf, Inc., 814 Thayer Ave., Silver Spring, MD 20910; 301-589-3006 (voice/TTY).
— Amateur Radio Research and Development Corp., McLean, VA □

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International DX Convention awards presentations

Peter Onnigian, W6QEU

During the Visalia, California annual meeting of the Northern and Southern California DX Clubs on 22-24 April, several club awards were made to members. The 1982 ARRL DX Contest award was won by the Northern California DX Club (NCDXC) with the CW award going to Ken Keeler, N6RO. The SSB wall emblem went to Cam Pierce, K6RU, who had a 17-year-old guest operator, N6VZA, at the mike.

The 1981 CQ WW contest Dave Baker Memorial award went to Randall Sobol, KH6XX, and was graciously accepted by Katashi Nose, KH6IJ.

The 1982 Best DXer of the Year Award was given to Bip Bachman, W6BIP, of the NCDXC. It is given to the club member who makes the greatest number of confirmed DXCC contacts in one calendar year.

The Southern California DX Club (SCDXC) gave its Sprint Award to Martti Laine, OH0BH, for making the greatest number of country contacts in one week. Chris Akiyoshu received the Clipperton Award, as the rookie of the year.

The SCDX ARRL DX Contest certificate for all-band CX operation was given to Doyle Craig, W6TMT, and Robert Cobb, W6CN, received it for SSB operation. The CQ WW Awards by SCDXC were given to Larry Brockman, N6AR, and the SSB single op plaque to Cyril Balwah, 9Y4VT.

San Hutson, K5YY, received a special award for "his extraordinary contribution to DX" for having made many DXpeditions during the past 15 years.

The convention's annual DX Quiz of QSL cards had 93 entries and was won by Steven Orland, AA6AA, of the SCDXC. Another interesting contest was high-speed CW pile-up code copying. Richard Norton, N6AA, got 42 different calls correct in four minutes! □

Larry Brockman, N6AR (right), congratulates Martti Laine, OH0BH, for making the greatest number of country contacts in one week, during the 1981 CW World Wide DX Contest.

Ventura County hams vs. storms

Jennifer Roe, WA6OHX

On Sunday, 27 February, a fresh storm began pelting an already water-soaked Ventura County. For nearly a month, a series of storms had caused continuing damage to Southern California counties, including Ventura County. ARES members stayed alert as flash flood and severe weather warnings were reported.

On Monday morning, the Camarillo Springs Trailer Park reported a flooding problem necessitating a one-day shelter at the park's clubhouse. Water swirled within 2 or 3 inches of trailer floors before the county flood control was able to cure the problem.

Throughout the day the heavy rainfall threatened disaster. Point Mugu Airbase closed and prepared to evacuate due to flooding. Rockslides, flooding and high surf caused roads to close. Highway 101 was shut down in several locations.

The first report of a possible dam break came on Wednesday afternoon, 2 March. At the southwest end of Simi Valley, an earthen dam on the little-known Sinaloa Lake was threatening the residents below it. At 6:00, Simi police requested the Red Cross to open an evacuation center at Royal High. Roger Armstrong, ARES Assistant Emergency Coordinator (EC) for the Simi Valley area, dispatched two amateurs to the shelter to provide Red Cross communications. Amateurs monitoring the local repeater were called on to stand by for action.

For the next four days, amateurs provided communications, via 2 meters, for Red Cross. They helped secure and deliver supplies and meals, set up television at the shelter, and conduct a disaster survey of the valley. The amateurs pitched in wherever they could; many missed work in order to help out. At all times there was a minimum crew of two hams at the shelter — one at the new (fire department) mobile command post, and one at the Red Cross Chapter House in Ventura. On many occasions, Marvin Munster, WB6PKK, braved the road just below the endangered dam to deliver food and coffee to hungry workers. John English, WB6QKF, Ventura County EC, and Roger Armstrong each averaged about nine hours sleep during the entire four days.

"Being at the command post was truly an asset to Red Cross and the Simi Police Department for instantaneous communication. We encountered excellent liaison with each service with which we worked," records Roger Armstrong in his report. "We had really good response of the local hams covering the bad hours. I thank especially the leadership and the hams at Red Cross; they did a great job."

The biggest problem experienced was the lack in continuity of reliable information. Wednesday night the evacuation center closed down only to be reopened 45 minutes later; local news broadcasters reported that the evacuees could return to their homes while another broadcaster informed listeners that the dam had actually broken. When the expected cots for the shelter did not appear, Roger Armstrong arranged with the Simi Valley Adventist Hospital to borrow some.

Sunday night, 5 March, a weary group of evacuees and volunteers heard the mayor of Simi Valley, Elton Gallagly, declare the emergency over, thus officially permitting the residents to return to their homes. The Simi Valley was again safe. A week later, an appreciative community presented Ventura ARES with a Certificate of Appreciation; every amateur received an individual letter of thanks from the mayor.

"All in all, this was the largest and longest operation in Ventura County," reports Ray Mote, W6RIC, District Emergency Coordinator for Ventura County. "I was very pleased by the way it went." Four shelters were opened and manned during the operation; three others were manned in standby status. There were also amateurs at the Red Cross Chapter House, the Sinaloa Incident Command Post, Simi Valley Police Department, and a roving supply truck.

Fifty-six amateurs participated during this emergency. □

Heavy equipment and operators worked 96 hours straight to drain the lake and save homes threatened by the disintegrating dam.

Martti Laine, OH2BH

'Tin Lizzies' look for other clubs

The Ford Amateur Radio Club (better known as the Tin Lizzy Club) is interested in making contact with other Ford plants that have Amateur Radio clubs. Correspondence can be sent to: Ford ARC, P.O. Box 2112, Dearborn, MI 48123-2112.

BY1PK and Heard Island

John Minke, N6JM

BY1PK — Beijing, China

Kan Mizoguchi, JA1BK, prominent DXer from Tokyo, presented attendees of the International DX Convention (Visalia, California) with a slide show of one of his recent visits to Beijing. Kan had gone to China to help train the Chinese amateurs in the art of contesting. He informed us that the Chinese stations should be in CQ's World Wide DX Contest next year, providing they had a thorough understanding of the contest rules.

Station BY1PK has been moved to a six-story building that is completely occupied by radio people. There are two towers on the roof, with one of them supporting a TH6DXX. Two birdcage dipoles are strung between the two towers.

Kan reported that he was assured he would have the chance to operate five to six hours over a period of two days. Unfortunately, they could not rotate the beam as the rotator had been transferred to a new tower. This left the antenna fixed in the southwest direction — or, as Kan says, "Direction of no customers!"

During the activity, in order to give stateside amateurs a chance against the multitude of Japanese amateurs calling BY1PK, word was passed on for the North American stations to go up 50, where BY1PK would listen. This was helpful, as the rest of the JA types couldn't hear the station — a local Japanese — instructing stateside stations.

Contest station OH0W was one of the several stations worked during this operation. See elsewhere in this convention coverage regarding the OH0W record attempt presented by Martti Laine, OH2BH.

Heard Island 1983

A very popular man at this convention was Al Fischer, K8CW, who was one of the two amateurs attached to the Heard Island Expedition. His call at Heard Island was VK0CW. Al, often referred to as the "Iron Man of the Rock" due to his operating efforts as PY0ZSC on St. Peter and St. Paul Rocks, earned himself the new title from this latest trip as "Frozen Fingers Fischer." (This will be explained later.) Al has operated with many calls, including GU5EEJ and GJ5EEJ. His presentation was supported with slides which accented the ruggedness of that rare DXCC country.

The Heard Island Expedition was introduced last year at Visalia by VK5QX and again at Dayton where Al first heard of it. Many amateurs were involved with this undertaking which was not primarily an Amateur Radio DXpedition. Calls of the many amateurs who were involved with the preparation included VK3AH, VK6NE, VK6YL, VK5QX, KN8M, WB2KXJ, KP2A, WA2MOE, N2DT, W6ISQ, etc. Special fuel had to be prepared for the operation due to the low temperatures experienced on Heard Island.

Heard Island is about 27 by 13 miles in area and is located 2,400 nautical miles from Freemantle in Australia. Big Ben is the highest point on the island and was the object of the mountain-climbing expedition. Big Ben is an old volcano and is still active. The team left aboard the sailing vessel *Anaconda II* at 0300 UTC, New Year's Eve from Freemantle for 18 days of sailing with a short stopover at Kerguelen Island.

The ship resumed its journey on the 20th, arriving at Heard Island a few days later. While the mountaineers — which included the first woman ever — were busy with Big Ben, the two amateurs activated Heard Island with the calls VK0CW and VK0HI. Propagation was not at its best, and with the other rare ones of BY8AA and LU5ZI, Alan and his teammate, Dave Shaw, VK3DHF (who held the VK0HI call), just could not get a pile-up going. The gear consisted of ICOM equipment, an IC-720 for maintaining communications on the boat and with the climbers, an IC-730 for SSB, and an IC-740 for CW.

Although there were 25 other people on the island (the climbers), Alan said it was rather spooky. They were informed that there were indeed radio towers on the island, but these were all down and on the ground. In addition to Amateur Radio they had a few other chores such as checking the animals and plant life. Nothing could be left on the island as part of the treaty. What came on must leave. The temperature ranged from 15 to 45 degrees. Alan wore out several pairs of gloves, earning him his "frozen fingers" title.

The mountaineers were successful in their climb, although they had to find another way down the mountain. They returned to Atlas Cove, the base camp, and as the weather conditions were not promising, it was a good time to leave. They left the island on 16 February, with the last contact made at 0213 UTC. They returned to the island two days later to get the antennas and made additional contacts, with the final contact on the 19th at 1402 UTC.

Sailing conditions were rough, and about 25 sails were blown out on the *Anaconda II*. The sails had to be repaired, and the only place to do so was in the galley. One did not eat while the sails were being repaired. While on deck, safety harnesses were worn as the rough seas would have proved fatal if washed overboard.

Alan said he had invested $10,000 of his own to the Heard Island Expedition. The trip alone was $30,000 for the boat charter. The expedition, originally scheduled for six weeks was cut short to one month.

(please turn to page 6)

Jim Smith, VK9NS, talks about his experiences during his DXpedition to Heard Island.

Kan Mizoguchi, JA1BK, gave a slide show on BY1PK, Beijing.

The inside story on TEN-TEC's CORSAIR.

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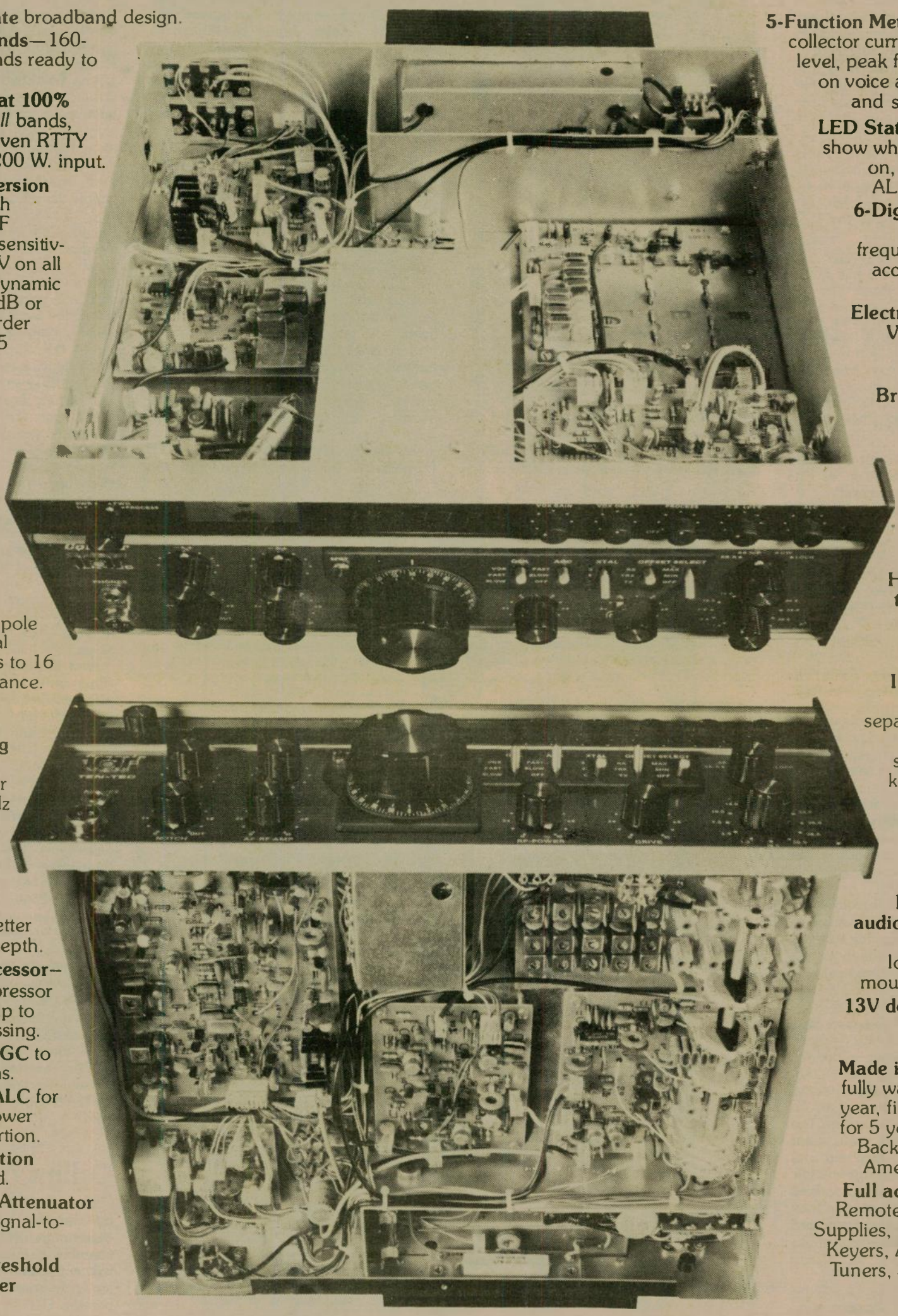

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Heard Island

continued from page 4

HIDXA — Heard Island

The Heard Island Expedition was not the only DXpedition to Heard Island. This one was the HIDXA team, and they held their expedition at the same time as VK0CW's. The team was headed by Jim Smith, VK9NS, who was another popular man in Visalia. Jim Smith, originally from Scotland, began his planning back in 1980. As Australia wished to restate its claim to Heard Island after abandoning the claim in 1951, this was an opportunity to go there. Jim had permission to go there and use the buildings, but for various reasons he did not get the DX-pedition going.

Jim Smith recalled some of his earlier amateur experiences operating in Europe as G3HSR. Jim reported that he went to SSB back in 1949 and never returned to AM. He worked 350 DXCC countries with that call, which is now held by his eldest son. He has always admired the "W6's," as their signals always went sailing over his head in G-land.

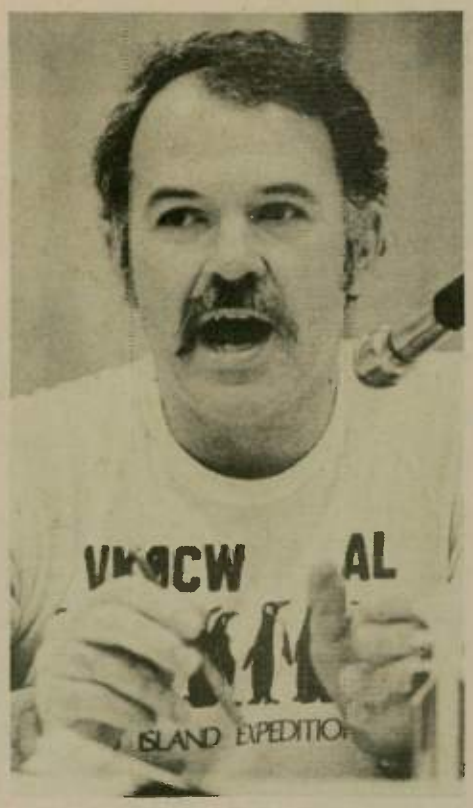
Jim's presentation of his DXpedition was also supported by slides. Jim operated as VK0JS and his wife, Kirsti, used the call VK0NL to give out a new YL country as she was the first YL to ever operate from Heard Island. Unfortunately, and perhaps understandably, most of Jim's presentation concerned the lack of support from the two major foundations. The HIDXA team (Heard Island DX Association) left from Hobart via the Great Circle route to Heard Island. Jim says they steamed — not sailed — aboard the *Cheynes 2.* The trip was plagued with problems and after repairs at Albany they did arrive at Heard Island, where they set up operations within a mile of the other team. The teams did work each other.

Jim's team left the island about the same time as the other team, and shortly out to sea, the *Cheynes 2* was shut down due to the fact they only had five days of fuel left. She was rigged as a "sailing ship" and she, too, blew out sails. It took them approximately 27 days to return from Heard Island. There was a rumor going about that Jim's team had lost the logs, and upon his arrival one amateur demanded he show his logs.

One of the slides was of the old radio shack on the island, which still contained the radio. The only thing missing was the roof. The elephant seals, which weigh about four tons each, kind of made a mess of everything else.

The DXpedition was expensive, each member of the team contributed about $3,000. Jim and his wife put up about $23,000. The cost of the ship was $2,000 per day while under steam and $1,000 per day while at anchor, which worked out to around $60,000 for the charter. The largest single contribution the team received was $300. On the return trip, Jim remarked that they were "going so slow at one point that a penguin walked aboard." This was indeed strange as they were out in the middle of the ocean and couldn't figure out where it came from. □

Let Worldradio know what you do in Amateur Radio; many others will be interested in your experiences.



Al Fischer, K8CW, attracted a lot of attention with his talk about the Heard Island DXpedition. The call he used while on Heard was VK0CW.

Heard Island — the XYL view

Norm Brooks, K6FO

"If you can't beat 'em, join 'em," Ann Fischer told me. To join them, she has been studying theory and practicing code and hopes to have her Novice license soon after she returns home to Mansfield, Ohio.

Ann is the recent bride of Al Fischer, K8CW, who was returning home from his famous Heard Island DXpedition. The Fischers, arriving at San Francisco International Airport, had a 12-hour layover. A group of 30 or so DXers — organized by Jay and Jan O'Brien, W6GO and K6HHD — attended a welcoming dinner at a fine restaurant near the San Francisco Airport, on 9 April. There was even a banner on the wall welcoming "Frozen Fingers Fischer."

I had been told in advance that Ann and Al had been married only one month and one day before Al took off for his three-month trek to Heard Island. "How could you stand for this?" I asked the bride. She replied that he had been planning this trip for a year, and it was simply a case of marrying him and his radio, trip and all. She spoke proudly of him, explaining "radio has made him what he is."

She reminded me this was not the first DXpedition Al had been on. He had been to Guernsey, the Bahamas, Guatemala, the Virgin Islands, Desecheo and Navassa.

The idea of going to Heard jelled at Dayton last year. At that time, Ian Hunt, VK5QX, said the Heard trip was going to happen, and Al said he wanted to go along.

Ann described the awesome logistics of the trip. First they had to locate a sailboat and captain to make the trip. Then they had to figure how many people should go, and how long it would take to get over and back. Then they planned food, water supplies, etc., for all those people. There was the captain, a crew of five, 12 mountain climbers, Al and Dave Shaw, VK3DHF — a total of 20. They estimated 41 days to get there, and 10 to 14 days to get back. The difference is because of the direction of the prevailing winds. A month on the island made the trip three months long.

(A question occurred to me. What word have the mountain climbers coined equivalent to our "DXpedition"?)

According to all Antarctic treaties, all expeditions are supposed to "police the area" when they depart, leaving nothing behind. Apparently, previous groups to Heard were not so fussy. Al's group found many items left there by others — even food that was still usable! Since the temperature on the Island never exceeds 40 degrees Fahrenheit, it is a natural refrigerator.

Ann related that one of the most happy circumstances of the trip was the fact that even though Al and Dave had never met each other before, they hit it off unusually well. They perfectly complemented each other's personalities and skills.

Ann did some tricky logistical computations on her own that came out remarkably accurate. She had to estimate, a month in advance, when Al would get back to Perth in order to fly there to meet him. As it turned out, they both hit Australia on the same day — he at Adelaide, she at Perth. He got to Perth two days later.

Ann was philosophical about the trip. "You know," she said, "a lot of people have never done anything very special in their lives, and probably don't aspire to. But Al is different. He had a lifelong ambition to go to Heard Island."

You have to decide what is important to you and set your priorities accordingly. In Al's case, he has a successful tool and die business, which he phased down in order to make the trip. "I'm proud that he made a lot of people happy."

What comes next? "When Al gets back to Mansfield, he's going to move his radio from his shop to a spare room in the house," Ann replied, "and he'll have the highest antenna in Mansfield, because we're on top of the highest hill in Mansfield." □

Collins celebrates

The amateurs at Rockwell Collins will be manning AD0C within the Collins Telecommunications Products Division complex beginning 1 July. The station will commemorate the 50th anniversary since incorporation of Collins Radio Company in 1933.

A special QSL card will be available for amateurs contacting the station during 1983. QSL to Box 728, Cedar Rapids, IA 52498.

Look for AD0C on phone: 28600, 21300, 21355, 14280, 14210, 7275, 7190, 3950 CW; 30 kHz up. □

Eric Sjolund, SMØAGD, looks over his notes at lunchtime. He spoke of his DXpedition to the Pacific, which he took last year. *(See page 23-24 of February Worldradio.)*

Following in Marconi's Irish footsteps

A group of Amateur Radio operators from all across the United States are scheduled to visit Ireland in August to follow in the historic footsteps of radio pioneer Marconi, who broadcast from a number of Irish locations.

Some of the earliest Marconi radio transmissions were made from Clifton, in County Galway, and Dun Laoire, just outside Dublin. While in Ireland, the American enthusiasts will be given temporary licenses by the Telecommunications Minister.

Gary Pickard — a travel agent from Phoenix, Arizona, and an Amateur Radio operator — is promoting the tour, which has been devised by Shannon Castle Tours. Joe Power — Travel Sales Manager, Midwest, with Shannon Castle Tours — said that the American party will broadcast daily to Irish counterparts. The 14-day tour visits locations from which Marconi made his first historic broadcasts. Already both Pickard and Power have been to Ireland meeting with Irish Ham Radio Society officials to ascertain European regulations.

"Considerable work goes into setting up a tour like this," said Power, who is based in New York, "but that is exactly the business we're in . . . special interest groups, the unusual, something daring, something we can sink our teeth into. . . ."

Full details of the August tour are now available from Gary Pickard, at Pickard Travel, 3120 No. 24th Street, Phoenix, AZ 85016. Tel. (602) 956-2150. □

1982-83 YASME DXpeditions

Peter Onnigian, W6QEU

The YASME foundation was started in 1965 to help foster Amateur Radio, especially in the Third World countries. It helps DXpeditions by providing QSL cards and QSL manager services. It does not financially support expeditions, accepts donations and is a tax-deductible charity. The current YASME president is Don Wallace, W6AM.

Lloyd Colvin, W6KG, and Iris Colvin, W6QL, operated DXpeditions from 15 countries during the past 16 months. Perhaps the most exotic "country" was Abu Ail. This Red Sea island is about 100 acres in size, rising about 400 feet above the sea, and located between Ethiopia and Yemen.

The island is classified as international, not being claimed by any one country, but used to support a navigational light since World War II.

Aided by J20DL and the French company which services the island from Dijibouti, they were allowed 48 hours on the island. Operating 41 hours, they made about 4,000 contacts in 105 countries.

Another rare country operation was from Qatar, where they had their beam on top of a 14-story building in downtown Doha. Although plagued by neon street advertising signs, they gave out many Qatar contacts. Mike Smedal, A71AD, helped them with the necessary legal authorizations and licensing.

The Colvins entered the ARRL International CX DX contest as HZ1AB. It was a multi-multi operation from the club station in Riyad, Saudi Arabia.

Look for the Colvins, who will be going to more countries soon. □

If a foreign amateur visits your area, do a picture story for Worldradio

The FCC approved expansion of the 20-meter phone band, effective early in May. Adopted at its meeting on 31 March, the Commission's First Report and Order in PR Docket 82-83 provided Extra Class amateur operator licensees telephony operating privileges from 14.150 MHz to 14.350 MHz. Advanced Class operator phone privileges are from 14.175 to 14.350 MHz and General Class operators may transmit telephony between 14.225 MHz and 14.350 MHz. The effective date is 0001 UTC, 22 May 1983.

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Expansion of the 80, 15 and 10-meter telephony sub-bands was proposed by the FCC in its further Notice of Proposed Rule Making, in PR Docket 82-83, adopted 31 March. 7075 to 7100 kHz was proposed for Extra and Advanced Class operators' telephony in Hawaii, only. The details of the FCC's Further Notice were not available at the time this was written. However, I will furnish them in next month's 'Highlights.' The usual comment period will probably allow for original comments up to early July.

•

The comment period on FCC "no-code" license proposal has been extended to 28 June for original, and 28 July for reply comments. This 60-day extension was granted in response to the ARRL's request, to give individuals and clubs more time to formulate and file reasoned non-emotional responses to the FCC's proposal. Briefly, the FCC has proposed a license for use of some or all of the amateur bands above 30 MHz, with only a written examination of present Technician/General Class difficulty or one aimed at an experimenter's level. For more details, see 'Highlights' two months back, or March **QST**, page 49.

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Clarification of the rules governing third-party and possible "business" traffic by radio amateurs is a current objective of the FCC's personal Radio Rules Branch. Rule Section 97.114(c) prohibits the transmission or delivery of ". . .third-party traffic consisting of business communications on behalf of any party." For the purpose of this section, business communication shall mean any transmission or communication the purpose of which is to facilitate the regular business or commercial affairs of any party," making it clear that communications to facilitate "business" are also improper when no involvement of a "third party" is planned.

While Section 97.112(a) states that "An amateur station shall not be used to transmit or receive messages for hire, nor for communication for material compensation, direct or indirect, paid or promised," there might be "business" communications not involving material compensation or third parties. Also involved is the situation where amateurs may provide emergency backup communications for an organization which is eligible for and is licensed to use non-amateur emergency service frequencies, but should not provide communications on a routine, daily basis. For example, see my report in last month's 'Highlights' on communications which amateurs were providing for a sheriff's department.

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A 10-year license term for amateur stations is proposed by the FCC in PR Docket No. 83-337. Also, a two-year grace period for license renewals after expiration was included in the Notice of Proposed Rule Making which the FCC adopted at its 31 March meeting. Although a specific date for the end of the comment period had not been announced as this was written, a three-month period for original comments followed by a one-month period for reply comments was expected.

One objection I have heard to the 10-year term is that the count of the total number of licensees in the FCC record would be even less indicative of the number of active licensees than it is now. Another one was that the Callbooks would be thicker, thereby less convenient and likely more costly. It should be noted that a similar proposal (PR Docket 83-30) includes a 10-year term for licenses in the mobile radio service.

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Cordless telephones which use frequencies just below 1800 kHz could no longer be sold in the United States if a recent proposal by the FCC becomes a rule. Existing equipment in the hands of users would be "grandfathered" in, but new equipment would have to use 49 MHz frequencies. Because of poor selectivity, some of these devices suffer severe interference when used near an active 160-meter amateur station.

•

Fraudulent alteration of Technician Class amateur operator licenses to General Class resulted in suspension of the licenses of two Technician Class licensees. In each case, the fraud was detected when these Technician licensees tried to renew their licenses as General Class. The renewal applications of Robert A. Harrison of Fort Walton Beach, Florida, and Richard J. La Vigne of North Adams, Massachusetts, were renewed, but only as Technician Class and then a suspension order was issued to each.

As neither applicant asked for a hearing nor submitted a written statement for consideration by the Commission staff, as they were advised they could do, the suspension automatically went into effect 15 days after the suspension orders were issued, and delivered by certified mail. The suspensions for both were for 180 days from the effective dates early in last November.

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The period for original comments on the FCC's proposal to use volunteers to prepare and supervise examinations for amateur operator licenses was extended from 8 April to 25 April in response to a request filed by the Quarter Century Wireless Association. This is the FCC's PR Docket 83-27 proposal, which would turn the administration of examinations for Extra, Advanced, General and Technician operator licenses over to three-person teams of amateur licensees.

For more details, see 'Highlights' two months back or April **QST**, page 54.

•

Suspension of the Advanced Class operator license and revocation of the KA4JNY amateur station license of Tommy O. Coe was ordered by FCC on 7 February 1983 and became effective 29 March 1983. The FCC's license record indicates Coe's mail address as P.O. Box 84, Low Gap, NC 27024. Quotes from the Commission's Order follow:

"3. The revocation is based on Coe's willful and repeated violation of Section 97.129 of the Commission's Rules. On 24 February 1977, Tommy O. Coe, in violation of Section 97.129, attempted to fradulently obtain a General Class Amateur Radio operator license by inducing Randy C. Crouse, an amateur licensee, to take the Commission's General Class Amateur Radio operator license examination. 2/At Coe's behest, Crouse used Coe's birth certificate and Social Security card for identification, completed the amateur application (FCC Form 610) in Coe's name, took the examination in Coe's name and signed Coe's name to the examination sheet and Amateur Record card (FCC Form 763). The scheme was discovered, at which time Crouse admitted the attempt to fraudulently obtain a license for Coe.

"4. On 7 April 1978, Coe was issued the license for Amateur Radio station WD8SDR and a Novice Class Amateur Radio operator license. These licenses were issued to Coe under the alias "Paul W. Cole," which he used in order to conceal his true identity from the Commission. If his true identity had been known, the Commission would not have issued the licenses. On 21 July 1978, "Paul W. Cole" was issued an Advanced Class Amateur Radio operator license. On 29 June 1979, the Commission granted an application changing "Paul W. Cole's" name to "Paul W. Barnette" and the station's call sign to KA4JNY. On 3 April 1981, the Commission granted another

Amateur Radio call signs

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

Radio District	Group A Extra	Group B Advanced	Group C Tech./Gen.	Group D Novice
0	NA0F	KD0DX	N0EOR	KA0PZC
1	KO1X	KB1GY	N1CQF	KA1KCU
2	KZ2R	KC2YF	N2EFP	KA2RWB
3	KN3M	KC3HC	N3DIQ	KA3KVX
4	WO4D	KF4VM	N4IOA	KB4EQT
5	NF5Q	KD5YJ	N5FVE	KA5QMN
6	NT6Y	KF6RH	N6IJN	KA6ZUX
7	NB7U	KD7IL	N7FBQ	KA7PUT
8	NC8J	KD8FK	N8EUS	KA8SAP
9	KV9L	KC9ZN	N9DWD	KA9PIX
N. Mariana Island	AH0C	AH0AB	KH0AE	WH0AAF
Canton Island	AH1A			
Guam	AH2R	AH2AT	KH2BD	WH2ADO
Johnston Island	AH3A	AH3AC	KH3AB	WH3AAC
Midway Island		AH4AA	KH4AD	WH4AAF
Hawaii	WH6H	AH6EQ	KH6WZ	WH6AVW
Kure Island			KH7AA	
American Samoa	AH8B	AH8AB	KH8AC	WH8AAN
Wake Wilkes Peale		AH9AA	KH9AB	WH9AAA
Alaska	WL7S	AL7EX	NL7AM	WL7AZF
Virgin Islands	KP2I	KP2AQ	NP2AU	WP2ADF
Puerto Rico	NP4T	KP4GP	NP4IA	WP4CTO

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

name-change application, changing "Paul W. Barnette's" name to Tommy O. Coe. Clearly Coe's licenses were fradulently obtained, in violation of Section 97.129.

"5. Coe's attempt to obtain a license through fraud followed by his obtaining amateur licenses through fraudulently concealing his identity clearly disqualify him from continuing to be an amateur licensee. Therefore, license revocation is required.

"Chief, Private Radio Bureau By: Raymond A. Kowalski Chief Special Services Division

"2/Crouse was an Amateur General Class licensee (Station WA4EUJ). Crouse's amateur operator license was suspended for the remainder of its term by an Order to Show Cause and Suspension Order, issued 15 February 1978. Crouse's amateur licenses subsequently expired and have not been renewed."

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Revocation of the station license, WA6CGI, and suspension of the Advanced Class operator license of Henry C. Armstrong III, was affirmed by the FCC's Review Board on 21 March 1983. Armstrong said he was "conducting permissible experimental testing related to the development of a computer program. . ." However, he used the input frequency of the Southern California DX Club repeater, AD6P, for his "experiments"!

Two amateurs testified that Armstrong's "experiments" were actually the implementation of his threat to drive the repeater off the air. (from the 30 March 1983 *ARRL Letter)*

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The request for reconsideration of its dismissal of his petition, filed by Bob Haviland, W4MB, was denied by the FCC on 8 March, because it was filed late. Last November, Haviland had petitioned for immediate allocation of the 18 and 24 MHz bands to the Amateur Radio Service on a shared, secondary basis. Current non-amateur assignments and incomplete plans to accommodate them elsewhere were cited by FCC in its dismissal as reasons why these new bands cannot be made available to amateurs at this time.

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During the Senate subcommittee meeting with the FCC on their fiscal 1984 budget, Senator Goldwater, K7UGA, received assurance from FCC Chairman Mark Fowler that the Commissioners would indeed review the Hildebrand case. The FCC staff and the Hearing Judge had pursued the case of the use of indecent language by Hildebrand via his amateur station N6HBU, to an Initial Decision to revoke and suspend his licenses when the Review Board dismissed the Judge's Order. The Commission *can* overturn the Review Board's action.

See last month's 'Highlights' for further information.

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De-licensing CB will not open the door for use of Amateur Radio equipment on CB frequencies. Only equipment type accepted for CB may be used on the CB frequencies was the response I received from FCC. A discussion I heard between some amateurs operating in the 75-meter phone band prompted the check with FCC.

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Would you like to have an up-to-date copy of the FCC's amateur rules? The last government print of Part 97 of the FCC Rules was current as of January 1979, costs $3.75 to get it from the U.S. Government Printing Office, and many of the rules have been amended since that issue was published.

Including all FCC amateur rules changes through January 1983, ARRL's *The FCC Rule Book* is now available at a modest price. It contains an excellent subject index, discussions of the meaning of many of the rules, information about the FCC and how it operates, etc. April QST, page 60, presents a good summary of the book's contents. □

What's the connection?

On 23 March, we received a letter and photo from W6ING, promising us a future article. On 25 April, we received a letter and article from WA6GON. Nothing unusual about that, except . . . both operators are named Douglas M. Smith. □

Convention

(continued from page 1)

leaders were on hand! Al Fischer, K8CW, of the HIDXA, talked about his experiences and showed slides of the January/February operation.

Jim Smith, VK9NS, and his wife, Kirsti, VK9NL, along with R. McManamon, VKØRM, made over 14,000 QSOs from Heard. Hearing Jim's story and seeing the slides was as exciting as being there . . . without all the discomfort and danger.

Kan Mizoguchi, JA1BK, gave an interesting slide show/talk on BY1PK, Beijing. Kan, a frequent DX Convention attender, said the BY1PK station staff told him that more stations will be on the air, but the language problem is in the way of a possible SSB operation.

During the three-hour drive home, the four of us in the car commented about what a very good time we had. It does whet one's appetite for more DX. It seems so much more personal when a call comes up on 20 after having met the person on the other end. Just one example: Fred Laun — a contester extraordinaire, who was recently interviewed on national television about the disaster in Colombia (he's with the U.S. Embassy there) — was at the convention.

It's quite a show! Since something of this proportion can only come off right with lots of hard work behind it, the Northern California DX Club certainly deserves the kudos. Next year, it's the Southern California DX Club's turn. Since it will be the 35th anniversary, it's expected that they'll make something special of it.

As for me, I'll certainly be in Visalia next April. (Having worked for a Visalia radio station in 1947-48, I was impressed with the city's growth.) The DX Convention is held at the Holiday Inn (practically every room was taken by the DXers) quite near the freeway from Los Angeles and San Francisco and the airport with commercial service.

Having now finally been to one, all I can say is that I could kick myself for not having gone sooner. □

Jim Rafferty, N6RJ, receives a plaque from Ellen White, W1YL, for the top worldwide score of the 1982 ARRL DX Contest, which he attained while operating as ZF2FL from Grand Cayman Island.

San Hutson, K5YY, receives a special award from Larry Brockman, N6AR, CQ Contest Chairman, for "his extraordinary contribution to DX" for having made many DXpeditions during the past 15 years.

Receiver performance specifications

Peter Onnigian, W6QEU

How would you like to test 38 different new receivers or receiver portions of transceivers before you buy one? Well, you don't have to get the test equipment lined up to test your prospective receiver; Rick Craig, N6ND, has recently done this for you. Rick — who works for the Navy in San Diego, California — recently made four series of tests on most popular transceivers, with the cooperation of several Amateur Radio supply houses.

Four important parameters for receiver operation were measured. Their values are shown in the table. The operation of the transmitter section in the transceivers were not measured, nor was the IF selectivity or noise blanker performance evaluated. These may be important considerations for you.

Rick presented a talk at the 1983 International DX Convention, held in Visalia, California, 22-24 April. His paper, "Those Puzzling Specifications of Today's New Receivers," was well received by more than 500 DXers who packed the Convention Center in the Holiday Inn. The definitions of his four series of measurements are in order here.

Noise floor

The noise floor is shown in dB values below 1mV. It indicates the sensitivity to pick up a weak signal above the general noise floor of the receiver.

Ultimate sensitivity is a function of the internal noise of the receiver (without an antenna connected to it), and the bandwidth necessary to receive that signal. The noise floor defines the maximum sensitivity of the receiver without regard to the bandwidth or input impedance. It is generally determined almost entirely by the first stage of the receiver.

(please turn to page 41)

Receiver dynamic range tests

All radios checked with standard SSB filters and on 20 meters with 20 kHz spacing of the two tones. Due to noise sidebands of the signal generators, radios marked with * were checked with 100 kHz spacing of the tones.

Radio	Noise floor dBm	2-tone IMD dBm	Dynamic range dB	3rd-order intercept dBm
R4C (Stock)	-134	-64	70	-29
R4C (Mod)	-133	-58	75	-20.5
TR-7	-130	-34*	96	+14
R-7 (Preamp on)	-131	-38*	93	+8.5
R-7 (Preamp off)	-126	-30*	96	+18
TR-5	-127	-43	84	-1.0
IC-730 (Amp on)	-134	-41*	93	+5.5
IC-730 (Amp off)	-131	-31*	100	+19
IC-720	-133	-40*	93	+6.5
IC-740 (Amp on)	-134	-44*	90	+1
IC-740 (Amp off)	-130	-35*	95	+12.5
R-70 (Amp on)	-134	-40*	94	+7
R-70 (Amp off)	-130	-35*	95	+12.5
TS-120S	-132	-64	68	-31
TS-180S	-134	-60	74	-23
TS-820S	-133	-66	67	-32.5
R-820S	-133	-55	78	-16
TS-830S	-134	-46	88	-2
TS-930S	-131	-38*	93	+8.5
TS-430S	-134	-40*	94	+7
FR-101S	-132	-57	75	-19.5
FT-101B	-134	-81	53	-54.5
FT-101EE	-130	-66	64	-34
FT-707	-131	-46	85	-3.5
FT-901DM	-132	-51	81	-10.5
FT-902DM	-134	-58	76	-20
FT-One	-131	-42*	89	+2.5
FT-102 (Amp on)	-130	-43	87	+0.5
FT-102 (Amp off)	-118	-29	89	+15.5
FT-980	-135	-40	95	+7.5
KWM-380	-126	-29*	97	+19.5
Atlas 350XL	-129	-46	83	-4.5
Atlas 210	-125	-40	80	+2.5
Astro 103	-130	-47	83	-5.5
CX-7A	-126	-64	62	-33
Ten-Tec				
Corsair (Amp)	-131	-45	86	-2
Preamp off	-121	-33	88	+11
Omni-A	-125	-35	90	+10

Special Events...

Bell Tower Festival

The annual Bell Tower Festival — in conjunction with the National Corn Throwing Contest — will operate W0MLY on 10-11 June, 1400Z-0000Z each day. Bottom 10kc General band. Send #10 SASE to Box 7, Rippey, IA 50235 for nice certificate. □

Train robbery

Libertyville and Mundelein Amateur Radio Society (LAMARS) will operate W9HOQ near the site of the largest train robbery in United States history. Approximately $3 million in negotiable instruments and jewelry were confiscated during a brief stopover and all participants were apprehended within six months.

Frequencies: *Phone and CW* — 15 kHz up from the lower 40-15 meter General Class band edges; *Novice* — 21.135(±) QRM from 0000Z to 2400Z, 11 June. Certificate for large SASE to KB9BR or "Big Robbery", Box 656, Libertyville, IL 60048. □

Wild West rodeo

Help celebrate the 101st anniversary of Buffalo Bill's Wild West Rodeo!

Each year, a week-long celebration, Nebraskaland Days — is held during the week of June in North Platte, Nebraska, the home of "Buffalo Bill" Cody. It features the Buffalo Bill Rodeo, named after North Platte's famous resident who started rodeo — as we know it — right here in North Platte.

In honor of this event and to celebrate Nebraskaland Days, the North Platte Amateur Radio Club and Lincoln County ARES will operate a special event station, W0CXH, from 0600-1200 UTC on 11-12 June.

Frequencies used will be: *SSB* — 21.400, 14.290, 7.250; *CW* — 21,140, 7,140. Plus or minus QRM.

A handsome certificate will be available to those confirming contact with W0CXH by sending a legal-size SASE to: North Platte ARC, P.O. Box 994, North Platte, NE 69101-994. □

Paul Bunyan and Babe

The Bemidji Amateur Radio Club members will operate WB0HUJ from 1600Z, 11 June to 2300Z, 12 June in commemoration of "Paul Bunyan and Babe the Blue Ox," from the beautiful shores of Lake Bemidji near the headwaters of the Mississippi.

Operation will be 10 kHz up from lower 80-10 meter General Class phone band edge and 20 kHz inside Novice bands. Send large SASE for special certificate. □

Change of address?

If you are moving, we need to know your new address six to eight weeks before the address becomes effective.

Delaware picnic

The 224.96 Over the Hill Gang and the 3.905 Old Buzzards Club will co-sponsor a spring family picnic at Garrison Lake, New Jersey, 18 June. The lake is located about 25 minutes from Philadelphia, Pennsylvania, and 30 minutes from Wilmington, Delaware.

Talk-in will be on 223.36/224.96, 448.050/443.050 and 146.52. The talk-in station will be Phil Mattison, WA2WOD.

For info, please write to The 96 Over the Hill Gang, Box 426, Newcastle, DE 19720. All are welcome. □

Tom Sawyer Days

The Hannibal Amateur Radio Club, Inc. will issue a 3rd annual special certificate from the National Tom Sawyer Days celebration in Mark Twain's Boyhood Home Town, Hannibal, Missouri, on 3-4 July.

Hours: 1500-2100 UTC both days. **Frequencies:** *Phone* — 7.245, 14.290, 21.400 and 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 Amateur Radio Club, Inc. W0KEM, 2108 Orchard Ave., Hannibal, MO 63401. □

Soaring Competition

State Line Amateur Radio Club, Hobbs, New Mexico, will operate Station W5SZS from 21 June through 11 July during the World Soaring Competition. Pilots from 20 or more countries will be participating.

Operations will be from 2200 to 0400 UTC weekdays and 1200 to 0400 UTC weekends, on 80 through 10 meters (SSB (±) 20 kHz up in General and CW in Novice bands), 2 meters FM and SSTV.

For a special certificate, send QSL info with QSO number and $1 to W5SZS, Special Event, 209 West Gold, Hobbs, NM 88240. SWLs are also eligible. □

Dayton awards

The Amateur of the Year Award went to Katashi Nose, KH6IJ, at the Dayton Hamvention this year (29 April-1 May). Nominated by the Honolulu (Hawaii) Amateur Radio Club, Katashi is an Extra Class CW whiz, a daily 2-meter man, DX hound, phone ragchewer, constant winner of contests, a highly qualified technician, and — above all — is sensitive to the needs of others in sharing his vast knowledge with amateurs around the world. (See photo of Katashi Nose and his wife, Matsuyo, on page 1 of this issue.)

Back in the days of the two-weekend Sweepstakes, Katashi would keep on operating after the 40-hour limit was reached — not for *his* score, but to help others with a KH6 multiplier. He holds the first Hawaiian WAS — the first issued outside of the continental United States (#153, 1937); the first Hawaiian WAZ (#62, 1948); the first Hawaiian DX-CC (#255, 1948), and has 354 countries confirmed.

His promotion of Amateur Radio — not only in Hawaii and the United States, but throughout the world — is well known. KH6IJ writes a weekly radio column for Honolulu's *Star-Bulletin*, and has had several articles in national Amateur Radio journals.

As a teacher at the University of Hawaii, Katashi helped form a new radio club at the school, and has helped other schools in the area get started in Amateur Radio. In the '70s, he installed a low-cost communications system in the South Pacific (the Marianas and New Caledonia) for Peacesat, a University project. The system was described in **QST** and is still in operation.

The Special Achievement Award went to Lenore Jensen, W6NAZ, this year. She and her husband, Bob W6VGQ, went to Dayton the last weekend of April to receive the award. Lenore is well known to **Worldradio** readers as author of the column, 'Who's Who in Amateur Radio'. However, Lenore is known to hundreds of amateurs for more than this.

Lenore Jensen, W6NAZ

During the Viet-Nam war, she ran several thousand phone patches to military personnel overseas. She is also very involved with emergency communications work in Southern California, where she lives. Two meters is part of her everyday life.

During post-WWII years, Lenore was familiar to many as a movie actress. Her acquaintance with well-known personalities during that time has sometimes given her an advantage when gathering material for her 'Who's Who' personality profiles.

Worldradio extends a hearty CONGRATULATIONS to both KH6IJ and W6NAZ for the honor they've received with these awards. □

Contest seminar

Peter Onnigian, W6QEU

During the International DX Convention held in Visalia, California on 23 April, Gary Caldwell, WA6VEF, invited high scorers in several contests to "show and tell" the attendees about their winning stations.

Tom Taormina, K5RC, explained how his multi-multi station operated during the last ARRL CW Sweepstakes contest. There are four operating positions, located at his 10-acre ranch near Houston, Texas. Antennas included two stacked rhombics at 70 and 130 feet, and a shunt-fed 120 ft. tower was used as a vertical on 160 meters. There were 11 monobander antennas, including a 4-element 40-meter antenna. Tom's color slides of his antenna arrays and operation equipment were impressive. He promised to have 13 operating positions next year!

Larry Brockman, N6AR, described the activities of the CQ World Wide Contest committee, which has 13 members and two co-directors. A new rule for club competition will require that all members be within a radius of 275km (170 miles). A club officer must submit a list of the club members, and a minimum of three members must submit scores from a specific club to qualify as a club entry.

A new point allocation had been drafted for adoption. It would require that the new CQ WW contest points be zero points for a contact within the same country, 1 point for contacts in the same zone, 2 points for the same continent, and 3 points for inter-continent contacts.

A show of hands by about 400 DXers present was generally in favor of this new point count system.

Larry Tyree, N6TR, who is a member of the ARRL Contest Committee, discussed several ARRL contest rules. The matter of guest operators was discussed, but a show of hands was not confirming for a new rule to give 10-meter CW contacts 2 points, while phone gets 1 point per contact.

Considerable discussion followed regarding the District of Columbia to count as a new section, increasing the ARRL contest sections from 74 to 75. A show of hands was against this proposal.

Discussion was also held on the 10-minute time-out rule during the ARRL SS contests, and possible limits for contest frequencies within each band.

Martti Laine, OH2BH, showed color slides of his recent CQ WW effort. Martti, a well-known contester and DX honor roll member, had the audience in laughter as he explained how he made rare zone and hard-to-find country contacts. He described how he had a telephone center with an assigned operator, who made direct phone calls to countries Martti wanted to contact, after the contest got started. If his spotters didn't hear the rare station, his operator would phone an amateur in that country and coax him to get on the air and work OH0W! He also believes in advertising, as he mailed out invitations to amateurs in certain countries, inviting them to QSO him during the contest. Apparently, this sort of activity is not covered by the contest rules!

Martti showed color slides of his Aland Island facility during this last WW contest. A relatively small rock-bound island, his multi-multi ops installed seven 100 ft. guyed towers, some with multi-band and others with mono-band rotary antennas. Wire antennas were hung between towers, to give his OH0W station the high score. □

Don Search, W3AZD, of the ARRL DXCC Desk

HAMCON news

Ralph Swanson, WB6JBI

At the Southwestern Division Ham Convention — which will be held over the Labor Day weekend, 3-4 September, at the Marriott Hotel in Anaheim, California — there will be an outgoing traffic center open during the hours of the show.

Visiting amateurs from out of the Southern California area will be able to send messages to their homes or friends. The joint ARES and RACES booth will have a station set up to send traffic on various VHF traffic nets for subsequent forwarding on the SCN/1, which meets on a daily basis on 3598 kHz (80 meters).

If you are planning to attend the convention, stop by the booth. Your traffic is encouraged. □

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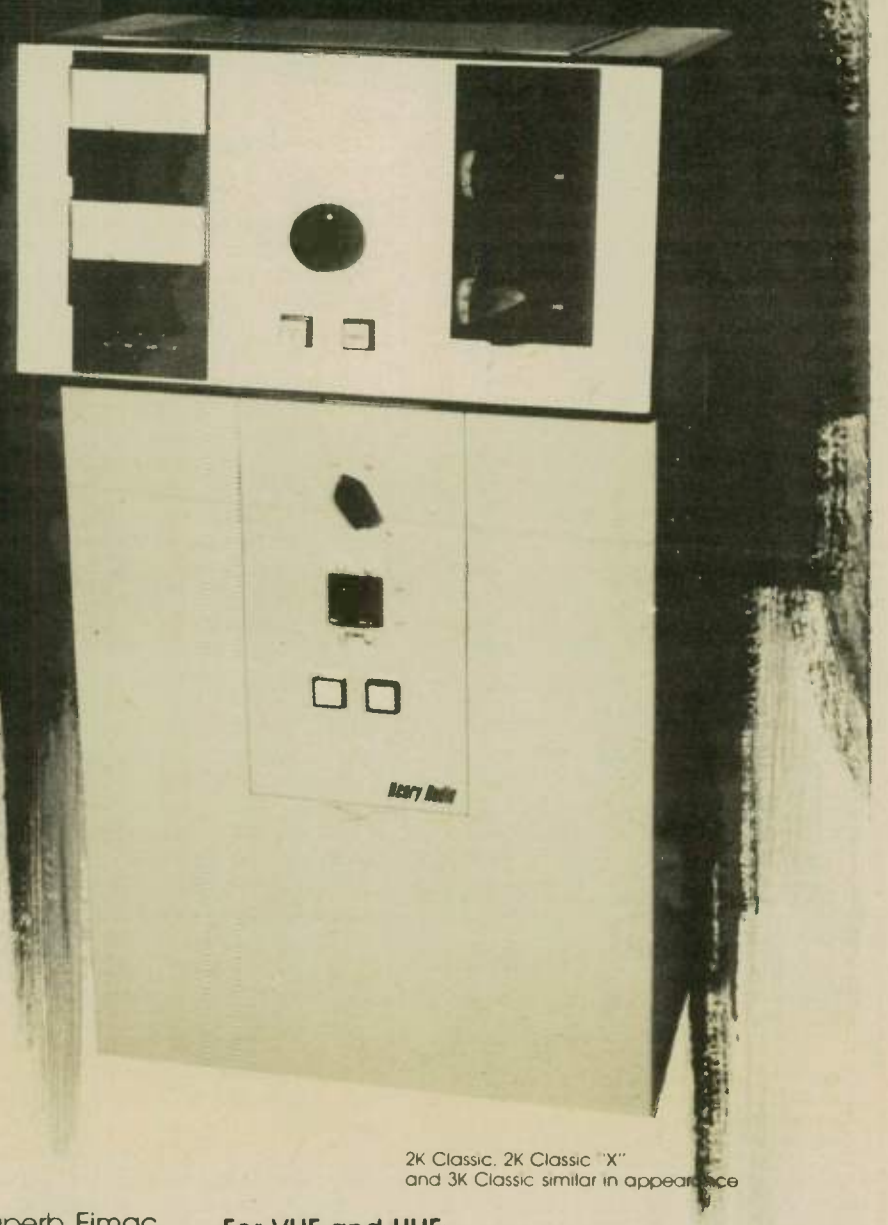

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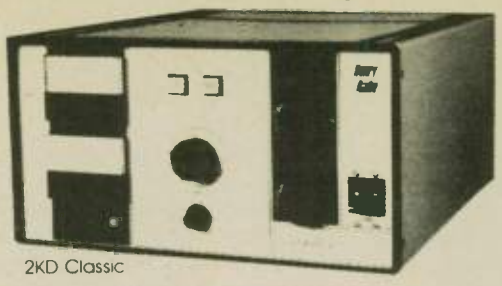

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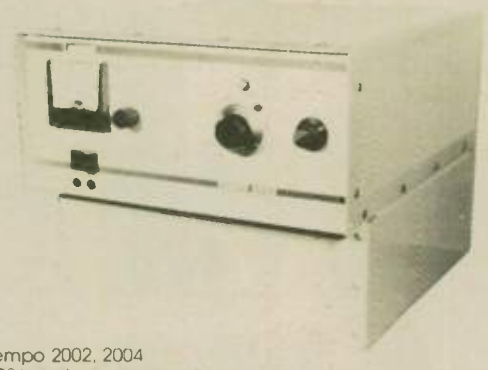

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Why chase spectrum criminals

Herb Schoenbohm, KV4FZ

The sight of the 900 bodies of men, women and children, all victims of the mass murder and suicide in the Guyana jungle village of Jonestown, led me to ask what can we do to insure that Amateur Radio will never be used again to facilitate such activities.

For Jim Jones, the self-proclaimed messiah who led these people to their fate, Amateur Radio was the vital communications link by which he ran his sordid operation. It was used daily to bilk individuals out of their life savings, victimize the elderly, break up families, and eventually destroy lives.

A few amateurs raised eyebrows at this operation, but while attempting to convince net managers that there were several illegal aspects to the WB6MID/8R3 operation, the answer was either, "What business is it of yours," or "Let the authorities deal with it."

Instead of being tagged as questionable operation, there was an increasing daily support with phone patches, message handling, and even donations by amateurs of equipment and money.

A modicum of peer group pressure would have gone a long way then. However, most public-spirited amateurs were silent and did nothing. Today the amateur bands are still filled with illegal activities, but a change in attitude at the FCC level makes the individual amateur more valuable in the protection of our frequencies from these lawless spectrum anarchists.

With the creation of citizens band, there appeared to be a gradual decline in respect for radio laws in this country over the years, to the point that the commission cannot control the very monster it has created, so they have decided to no longer issue licenses. Individuals now can just go into the store and for under $100, can buy an international communications station and use it without much control.

Other aspects of FCC policy indicate a definite interest in bringing their administration of Part 97 in line with the ITU treaty and being more than a passive deterrent to the acceleration of the decay of our spectrum.

Yachting piracy — a serious international problem

In the Caribbean basin area, as well as other parts of the world, the amateur spectrum is utilized to an increasing degree by pirate yachting types that can be heard frequenting maritime mobile networks. Most of these signing Maritime Mobile Region 2 are in actual fact aboard a vessel operating in violation of the laws of the country in which they are anchored. As a general rule, most of the skippers of these yachts do not get on the radio when they are under sail because they have too much to do topside and also must conserve their batteries for possible emergencies. When they get into an anchorage, it is a different story. They now have plenty of time to get on the radio, check in with their stockbroker, order parts, and run a few phone patches to see if the upcoming charters are all in line. It is all very illegal.

Blow their cover

Public-spirited amateurs, working together, have several effective weapons to use against radio pirates. Exposure of illegal activity on a net frequency is extremely important. The word spreads fast, and most yachtsmen do not want to be embarrassed in front of their fellow boaters.

First, try to get as much accurate information as possible in an unalarmed conversational manner. Find out where the boat is, as well as her name and description. You are completely in line for asking where the vessel is bound for and what the ETA might be. This is information a skipper would want you to know if, of course, he is not trying to hide something.

Once you get the name of the vessel and its registration and home port, it is very easy to work up a file on suspected pirates. Detailed information on all U.S. vessels as well as FCC boat licenses are available, but not entirely necessary. Much valuable information can be obtained from other boaters in the area. You can also check into one of the many maritime mobile nets and inquire about a boat; somebody will always volunteer some information you are looking for. Develop a profile on the pirates you observe, and store the information on a card or even a home computer for rapid access.

Be friendly and offer to help maritime mobiles whose operations appear legal, but be stern with those that are blatantly illegal. Knowledge of ITU rules and Part 97 are essential. Remember the basic concept when subjecting a suspected pirate to the litmus test. No country can license the operation of a radio transmitter for use on high seas on the flag vessel of another.

The U.S. Constitution, for example, forbids the abrogation of U.S. regulatory authority to a foreign power. So when you hear a foreign call sign being used aboard a U.S. vessel in Maritime Mobile Region 2, you most likely have encountered a pirate.

Some of the smaller Caribbean countries now issue only slant bar permits to visiting amateurs. They have done this to help combat the piracy that is an embarrassment to their country. However, the maritime mobile nets are still loaded with an abundance of D68, P29, TI8, ZD7 and ZB2 stations. Some of the net controllers, unfortunately, still wish to shield this illegal activity. However, persistence in chasing maritime mobile pirates pays off. You may have to resort to asking the question, "How can you in good conscience continue to communicate on this net with stations you know are not properly licensed?" Or, "We really should not be talking to him until he gets a license from the country whose harbor he is anchored in."

Most involved amateurs are interested in helping true maritime mobile stations. You can and should assist seafarers in keeping in contact with friends and family. However, it is entirely a different story in dealing with the cruising yachtsman anchored in Martinique, living in luxury on his $100,000 boat. He calls into a net with his St. Lucian pirate call sign, expecting you to run a phone patch to his broker, and all along you think you are helping a merchant seaman braving the hostile elements in the open ocean. The abuse is so widespread on the traffic nets that only a small portion of those who claim to be maritime mobile are actually telling the truth.

The typical procedure of a yachting pirate is to first secure a call sign from one of the less sophisticated countries. Unfortunately, this can still be done by mail or through a friend for a few dollars. This license is then photocopied and used, contrary to law, to gain reciprocal calls from other countries.

This so-called third-country licensing is in violation of reciprocal agreements that are meant for a citizen of country "A" to obtain permits from country "B" for operation in country "B." These bilateral agreements are just that — agreements for the citizens of either country. They are not and cannot be made binding on a third country.

It is clear and legally consistent that when a U.S. citizen enters a foreign country, he must have his or her valid U.S. passport. An entry visa from some other country is of no value, except perhaps to document where he or she has been. Yachtsmen, as a rule, have complete knowledge of the punctilio involving vessel documentation, landing permits, cruising permits, and even firearm or pet entry permits. However, when it comes to Amateur Radio, many of them feel the amateur bands are just theirs to provide international telephoning services without a lot of hassle.

Yachtsmen, as a rule, take great pride in their knowledge of the rules of sailing. Much of their time is devoted to keeping the vessel trim and ship-shape. However, when the use of amateur bands are concerned, many cruising yachtsmen openly demonstrate a contemptuous attitude toward radio regulations. Many of them take the position that sailing away from the mainland is beyond reach of the FCC enforcement branch, so on and on they go.

To begin with, claiming to be operating Maritime Mobile Region 2, while in a foreign country, is actually giving a false position report by radio and indeed a serious crime, not to mention the violation of a country's sovereignty, as well as Part 97 prohibitions.

Today, Amateur Radio is being used, to a larger degree, in supporting drug operations, illegal alien smugglers, ad hoc missionary groups, tax and alimony evaders, and a ragtag bunch of water-borne gypsies on the run that hit an island and take what they can, while they can.

In the 15 years here in the Caribbean, I have seen many unusual things, including one amateur with a yacht replete with a

Where to listen for pirates

Freq.	Daily Time	Name	Rating	Comments
14303	1800Z	UK-Maritime	Black Star	Really a bunch of pirates that need a call sign to cross the Atlantic.
7240	1130Z	Caribbean/MM "Beenies Net"	Grey Star	A lot of illegal in-port operation and some phonies and exported calls.
14313	1100-0600Z	MM Serv. Net	Bronze Star	They want to be correct, but have not figured out how to stop the pirates from using the net.
21400	1300Z	Trans-Atlantic MM/Net	Silver Star	They used to be very bad, but a real concerted effort by WA1WTP has made this a fine net.
7268	1200-1300Z	Waterway Net	Silver Star	It took quite an effort, but the pirates are not welcomed anymore.
21405	2330Z	Pacific/ MM/Net	Grey Star	Some West Coat amateurs are trying to improve it.
7085	1300Z - Sun.	Water Gypsy/ Net	Black Star	Most all are illegals operating without permits.

dental chair. The popular ham nets in the area were used to drum up business as he would hop island to island sans amateur or medical license. Drug honchos love the ham bands because they remain inconspicuous amongst a sea of other communication. With simple codes such as a recipe for English muffins, they can transfer valuable and timely information, such as when to bring the marijuana-loaded mother ship through the St. Lucia Channel into the Atlantic for a cargo transfer to smaller yachts, that in turn will take it to the Bahamas.

It does not take much imagination to figure out that two boats making a rendezvous in the open Atlantic are not doing so to swap sea chanties.

The question that net afficionados should ponder is, are they really meeting the required basis, purpose and scope of Amateur Radio by providing an international telecommunication service for cruising yachts anchored in foreign ports.

It is of paramount importance that the bulk of these problems be dealt with by amateurs themselves. If we can act to cut back on the lawlessness that invades our spectrum bands, we can avoid overkill by regulatory agencies that as a rule always cut deeper and hurt even the innocent amateur, insisting of course that serious offenders still remain a priority for these agencies.

If we value our reciprocal agreements, as well as our third-party agreements that exist with practically every country in the Western Hemisphere, let's act to preserve them by challenging illegal intruders. The CB pyorrhea has spread from the United States throughout Latin and South America, and some of the blame has rubbed off on Amateur Radio. Maybe we should have put up a bigger fight before they took away 11 meters for the bunch of crazies that now inhabit what remains.

We face a similar situation today with the cruising yachtsman who travels about the world spreading piracy. A few years ago, an American yachtsman traveled the Caribbean with an illegal VP5 call sign. Believing there was safety in numbers, he provided a mail order method of licensing with foreign calls for several hundred phonies. Charging $25 a license, he was exposed in the Caribbean, but now peddles —P29— Papua/New Guinea calls to yachtsmen in the Pacific. He has gotten a lot of new amateurs on the air, but illegally. □

Western Cape Province beacon

Paul Johnson, ZS1BR

A VHF Amateur Radio beacon has been established for the benefit of amateurs in Western Cape Province, and hopefully the international community under good propagation conditions.

The beacon transmits continuously as follows: first, in frequency shift keying

CQ DE ZS1SIX QTH PIKETBERG SA FSK MODE PSE QSL TO ZS1CT 73

The beacon then changes mode and transmits using FM with an audio tone of approximately 1 kHz and constant carrier

CQ DE ZS1SIX QTH PIKETBERG RSA FM MODE PSE QSL TO ZS1CT 73.

The output power is 16 watts, feeding a vertically polarized groundplane antenna. The crystal-controlled frequency is 50.945 MHz. The programmed memory is a 256 × 4 bit PROM and associated circuitry for switching modes and audio tone generation.

The location of the beacon is Aasvoelskop 32° 54′ 57″S, 18° 44′ 20″E at an altitude of 807 m ASL above the town of Piketberg.

The beacon was built up by ZS1SG and ZS1BR. The annual license fee is sponsored by the Electricity Supply Commission Amateur Radio Club, and all reception reports and QSL cards should go to ZS1CT, Cape Town Branch of the South African Radio League, P.O. Box 5100, Cape Town 8000, REPUBLIC OF SOUTH AFRICA. □

KA1YE/B beacon

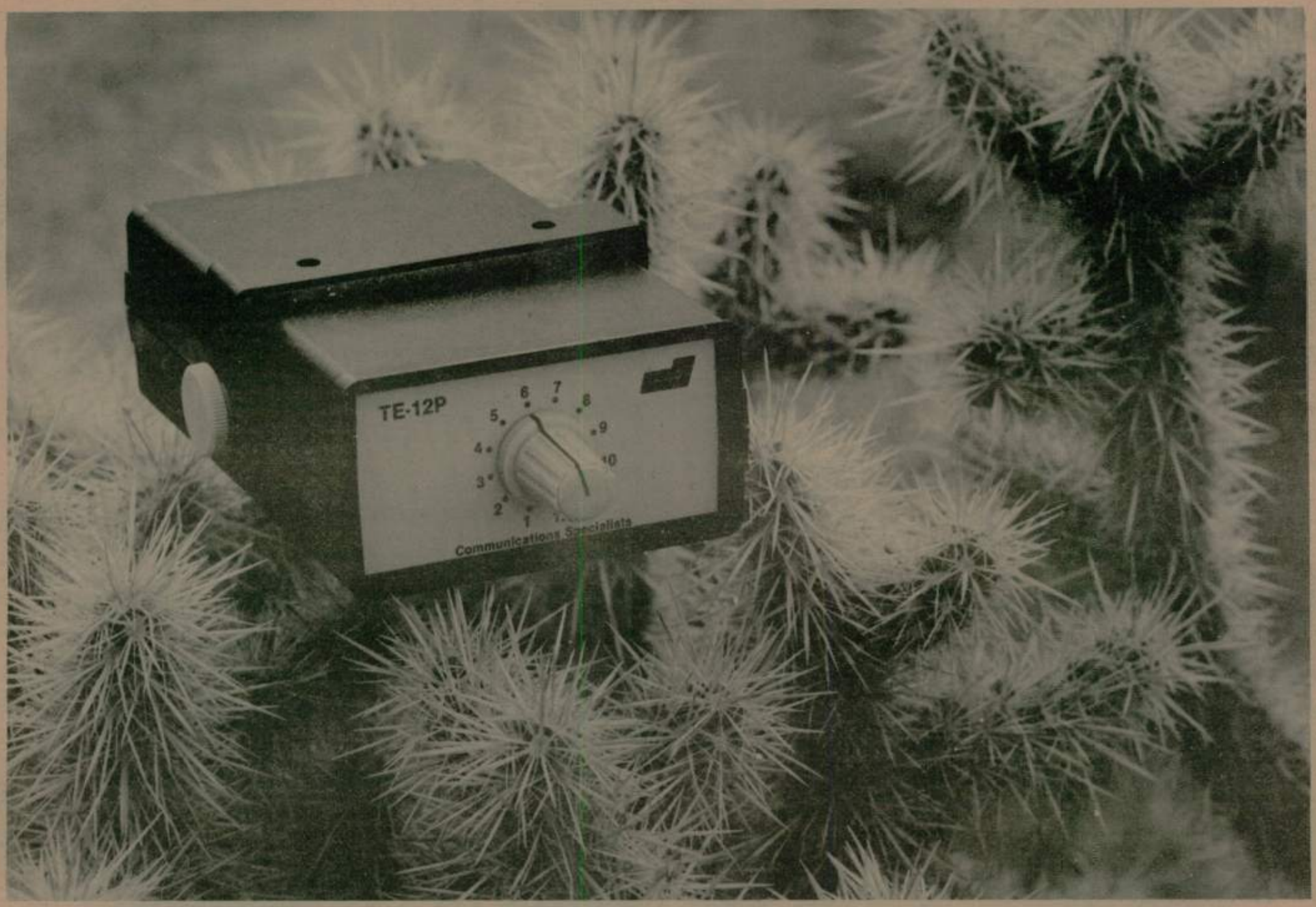
Peter Kemp, KA1KD

KA1YE/B went on the air 5 January 1983 and is located in the Oakdale section of Montville, Connecticut. Its coordinates are 41°27′ N, 72°12′ W (Grid FN31VK.)

The beacon uses a Hy-Gain Cybernet board, converted to CW, and is running 2 watts output into a horizontal antenna. It operates from a site 425 feet above mean sea level, 24 hours a day. This 10-meter beacon transmits on 28.284 MHz. The ID currently send DE KA1YE/B SE CT at about 18 wpm.

Future plans for this beacon operation include 6-meter activity on 50.063 MHz and a 2-meter station on 144.035, both with 2-5 watts output into turnsile antennas. Two and 6-meter beacons to be located higher up on the site operating at 600 feet above mean sea level. So far, reports have been received from Europe and Canada. All QSLs will be answered.

QSL via the bureau or direct to: KA1YE/B, W. Keith Hibbert, 25 Hillcrest Road, Niantic, CT 06357. □



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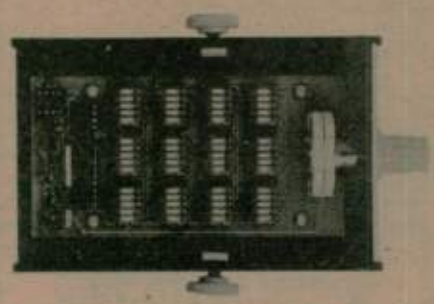

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77.0 XB	94.8 ZA	114.8 2A	141.3 4A	173.8 6A	
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How to break a DX pile-up

Norm Brooks, K6FO

Q: How do you break a DX pile-up?

A: LISTEN. Listen to the DX station. Follow the instructions he/she gives. Listen to the stations the DX is answering, so you'll know where the DX is listening. Always be in a position to listen to everything the DX station says.

This was the unanimous advice given by six prominent DXers at the 1983 International DX Convention at Visalia, California on 23 April.

The DXers on the panel were: Erik Sjolund, SM0AGD; Al Fischer, K8CW (VK0CW); Jim Neiger, N6TJ (8P6J); Fred Laun, K3ZO (HS1ABD); Jim Smith, VK9NS (VK0JS); Iris Colvin, W6QL (of YASME).

Convention Program Committee Chairman Jay O'Brien, W6GO, asked the panelists, "What is it we can do to get through to you? What is it we should do? What should we not do?"

Other points agreed to by the panel were "send your full call sign" and "send it once." They don't like suffixes of calls only, because they must then waste time in asking for and getting the rest of the call.

When you listen to the stations the DX is answering, you will learn the DX station's operating pattern. Does he listen in one place, or move up or down with each call? In this way, you can be in the right place at the right time. Fred said on CW that he starts from the high side of the pile-up, working down to his own frequency. To work him, you should come in just lower than his last contact. Jim Smith says "I define my pile-up. If I say '2 to 5 up', I listen exactly there, not 10 up."

Only call once, they all say. But that once doesn't have to be immediately after the DX stands by. Fred suggests you count "1-2-3" before calling once. Jim Neiger recommends you listen for a quiet moment and slip in your call just once. He says there's an advantage to having a short call sign.

Use proper phonetics. Unusual phonetics may have a meaning to you, but they confuse the DX. An extreme example would be "O for Oakland," which could mean "A for Auckland" to a new Zealand-oriented DX.

Erik says he likes to reward people who carefully listen to him. He will throw in a quick change in instructions. While a pile-up is calling him "up 5," he may throw in a "down 2." Those who hear and quickly QSY can get him in the clear. Al says, "I tell exactly where I'm listening. Those who listen to my instructions will get me immediately."

Generally, the DX will answer the loudest station first. It's not necessarily the most powerful station because of varying propagation, but it doesn't hurt to put up a big antenna, Al says.

If you're QRP, don't holler QRP, QRP, QRP. Just give your call sign like everyone else — just once. The real dyed-in-the-wool QRPer doesn't want concessions made because of his low power.

Should you tail-end calls? Jim Neiger said, "I encourage tail-ending. Just slip in your call where it won't interfere with the on-going contact." First, listen to determine if the DX is answering tail-enders. Jim Smith said he answers tail-enders only after the pile-up has worked itself down.

What do you do when the DX station is being jammed? Al Fischer suggests you look around for the frequency the DX will move to. "I know I'm being jammed when I get no response to my calls," he said. "I'll change my transmit frequency. Listen around and you'll be the first to hear me."

Iris likes to work phone transceive (on her own frequency.) She agrees that listening a lot and calling just once with your full call sign are important. "Learn the DX station's rhythm," she suggests. When a pile-up is very heavy, she will come back to partial call signs. But follow her instructions. "When I say Sierra Tango, I want only ST to come back." She suggests if you're not getting through to stop and analyze your technique. Change your phonetics. Shorten your calls. Listen more.

Iris says it is not always the loudest station that she comes back to. Some that are not the loudest come through best. Speak slowly. She makes an effort to listen for weak signals, including QRP. Jim Smith says he does too.

Jim Neiger points out that on CW, he uses a highly selective filter only 200 Hz wide. If you want to call him on the frequency of the last station, be exactly on that frequency; 200 Hz away and he won't hear you.

In summary, all you need to do to break that pile-up is to: 1) listen; 2) send your full call sign; 3) send it once and listen again; 4) try to sense when to send your call once; 5) use standard phonetics; 6) try to learn where the DX is listening; 7) try to learn the DX technique and rhythm; and 8) follow the instructions from the DX station.

You have the permission of this prestigious DX panel to call anyone a "lid" who sends his call more than once without listening for the DX station's response. □

Left to right: Jay O'Brien, W6GO; Al Fischer, K8CW, who had just returned from Heard Island; Norm Brooks, K6FO; and Morris Brown, N6DJM.

'You're not in the log, OM'

Norm Brooks, K6FO

What's the first thing you ask a DX-peditioner who has just come back from a rare place? You ask to see his logs. What happens when you work him only once and at the date and time you expect to see "K6FO", you see a call sign ending in "CO"? You quickly learn you should listen for your *entire* call sign before assuming it is your QSO. You also learn the meaning of, "You're not in the log, OM."

P.S. It looks like Morris, N6DJM, took it harder than I did. □

Social hour before the 34th Annual International DX Convention.

●●●

Hope we can serve you. Your comments and suggestions are welcome.

Chris Wilson

OFF THE AIR

Access codes needed

I am compiling a list of access codes for repeaters anywhere and need input from your readers. Open access codes will be listed with permission; closed (member-only) will not be listed but information on how to join will. Lists will be sent to all who contribute; others for an SASE and copying costs (25¢).

Send to Jeff Howell, WB9PFZ, P.O. Box 187, Milton, KY 40045.

Also would like to hear from others in the EMS and forensic medicine fields. (I am a CEMT and a deputy coroner.)

JEFF HOWELL, WB9PFZ
Milton, Kentucky □

Electrical workers' net invites check-ins

The IBEW (International Brotherhood of Electrical Workers) Net meets each Saturday morning, 1600Z, on 14.327 (±) QRM. Weekly information on work activity, etc. within localities of the IBEW Union. All brothers and non-members are welcome to check in.

BILL SULLIVAN, N5AFH
Orange, Texas □

'Ordinance could backfire,' he warns

As an Amateur Radio operator for over 35 years, as well as a long-time public official, I am concerned about some points which arise in your April 1983 article, "A success story," by V. Olimpio Varsogea, WB8SEZ.

The story relates to the success of amateurs in having approved by the City of Monroe, Michigan, an "ordinance" which requires that no interference result to other services from the operation of a cable TV franchise. This is a double-edged sword which could, if upheld in court proceedings, set a precedent which might well be used *against* Amateur Radio operators.

If the matter were simply a provision of the franchise agreement (a free will contract) between the city and the cable TV franchisee, there would be no problem. To have this provision created as an actual ordinance (law) of the city raises the spectre of the city's right to control electromagnetic radiation, a right which Amateur Radio operators and the communications industry in general have historically held to be preempted by and the exclusive province of the federal government.

Certainly, it is clearly unconstitutional to say that a city can regulate the electromagnetic radiation of a cable TV system but not the electromagnetic radiation of amateurs.

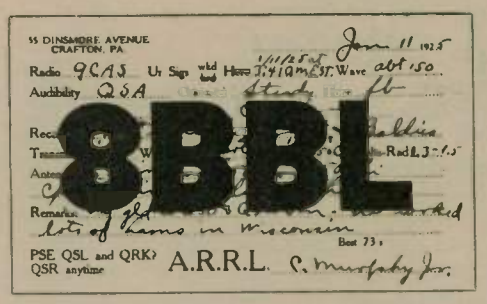
We cannot eat our cake and have it, too. Caution is advised here. A contract is one thing, but an ordinance is something again entirely.

BILL ENGLISH, W7LHI
Chairman, Committee on Commerce
Arizona House of Representatives
Phoenix, Arizona □

'BBL' rings a bell

I noted the story in April **Worldradio** about a QSL of W7MR dated 21 December 1929 that resurfaced after 53 years. I hate to steal any of OM Art's thunder, but I can go his record a little better.

Some time ago I made contact with Herb Berg, W9CAS, and he said my call letters (W3BBL) rang a bell with him. Herb must have some kind of a memory and QSL file system, because lo and behold, he pulled out a card of mine (8BBL), confirming a QSO with 9CAS of 25 January 1925. At that time there were no prefixes in use, and this area (Pittsburgh) was in the 8th call district, later becoming the 3rd.



Of course, this card also had a 1¢ stamp — hi!

COLEMAN MURPHY, W3BBL
Pittsburgh, Pennsylvania □

My quest — pocket-size CW transceiver

"BT" (before transistors) I built a tiny tube transmitter to operate 40/80 CW. Using a converter placed into a small pocket AM radio receiver, I kept in touch with home base, using a piece of flexible insulated wire under my coat as an antenna. With a longer wire thrown up into a tree, or even on the ice or snowy brush, I had communication for longer distances.

While working on a lumber schooner just off the Oregon coast, I made use of the ship's antenna and my little rig to contact a Japanese passenger vessel leaving Tokyo, enroute to Los Angeles Harbor, where I was welcomed aboard by the ship's radio officers. It was fun, but carrying around heavy old-fashioned hearing-aid batteries and such bulk is surely not part of the "state of the art" now.

It should be possible to design a tiny CW transceiver capable of working several bands, compact enough to carry in your shirt pocket. It could provide reliable CW communications from any *remote* area with simple wire antennas.

Please address me at W0MFW, Birchmont Drive, Bemidji, MN 56601.

ARMOND BRATLAND, K6EA
Long Beach, California □

W1NF responds to W1ZE's claim

With great interest, I read the item about Irving Vermilyea. (See March **Worldradio**, page 46.) Worked him several times on 2 and 6 meters when he was on Mt. Washington, New Hampshire.

I have a Wireless Blue Book published by Modern Electrics Pub., New York City, in 1909 and 1910. I got in the 1910, as I was late sending in dues. Vermilyea also failed to get in the 1909 Callbook. We are both in the 1910 book, however.

Irving claims to have (had) 10kW transmitter then. Being on 95 meters, I never heard him. I am listed as being on 88 meters, with 1 inch spark coil.

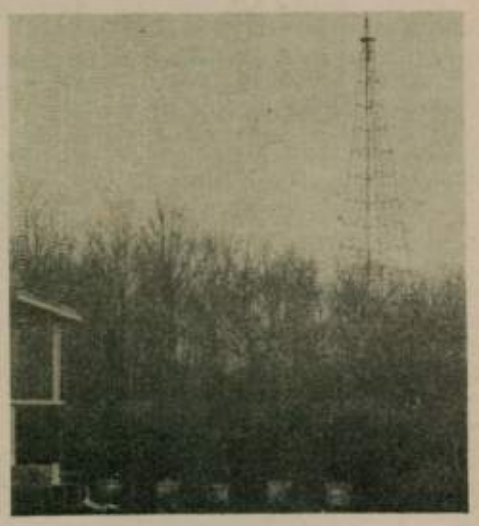
Somewhere I have a magazine clipping after Vermilyea got on the air four years after the Marconi incident.

I got on the air with Doctor Greenleaf Whittier Pickard, inventor of Perikon detector in 1902 on 88 meters. My uncle Gus visited us one Sunday in 1903 and took a picture of me at my rig. It has been published in many radio mags. Date was 1903 and it gives some people the idea I started in 1903. It's wrong. I started in April 1902. So who was on first?

ART ERICSON, W1NF
Beverly, Massachusetts □

First ham's antenna

I was interested in the issue of **Worldradio**, March '83 issue, page 46, article by Col. Fred Elser, KH6CZ. This shows a QSL card of W1ZE, the first licensed amateur in the United States.



I worked W1ZE in 1949, and he confirmed the QSO by sending me the enclosed photo of his antenna. At that time my call was W9JHR.

L.F. ZIEGLER, W0POX
Omaha, Nebraska □

Letter results in pleasant surprise

My old-time tale about my 1921 intro to NAA at camp and my Dartmouth W1YB 1930± connection had an amazing result. THANKS! (See "Early experience sticks with him," March **Worldradio**, page 19.)

A letter came from KH6OA, southern tip of "Big Island" Hawaii. He exclaimed over *coincidences. He* had been at the New Hampshire camp in 1928. *He* had been at Dartmouth (1941) and the W1ET which came after failure to renew W1YB in time. We both knew the same camp and college people, naturally. What a happy result!

TEMP NIETER, W9YLD
Evanston, Illinois □

'Nun on broomstick' sponsored by YLRL

I have just "adopted" (sponsored) Sister Margaret, P29NUN, as a YLRL (Young Ladies' Radio League) member. A letter received from her remarked about the poor propagation she has been having stateside on 10 and 15 meters, so she is going to try to get an antenna up on 20. (See "Nun on a broomstick," page 11, May **Worldradio.**)

The sponsorship of DX-YLs was first started by YLRL for YLs who couldn't send money out of their country. It has grown by stateside YLs forming friendships with DX-YLs and sponsoring them. At times, the DX-YL will sponsor a stateside YL in their YL organization. This all adds up to forming long-lasting friendships through the years, and at times, resulting in visiting each other.

JERRIE STONIER, K6INK
Burbank, California □

Please send news and pictures to Worldradio

DXers and prefix hunters, take note

Here is some information that should be of special interest to prefix collectors and DX aficionados.

Most of my air time is directed toward Latin America, and this afternoon (20 March), I happened to have a lengthy converstaion with Alfonso HR2AMC, located in a Central American country which seems to have grown rare on the ham bands — Honduras. Our QSO took place on 10 meters, and naturally the first question I posed concerned the inactivity of Honduran operators. Not only did Alfonso answer this, but also provided much information regarding Amateur Radio generally in that nation.

To begin with, the Hondurans prefer 40, 20 and 2 meters, which explains the void on our popular stateside 10 and 15-meter bands. Secondly, only a very small percentage of the Hondurans speak even that small amount of English necessary for quick QSOs and we have, in reverse, the same problem with Spanish. Furthermore, there has been a marked changed in Honduran licensing procedures which has brought about excessive delays.

In years past, HONDUTEL, the equivalent of our FCC, had been the sole Amateur Radio licensing agency since security risks had not been an essential factor in their hobby/service. However, due to the guerilla warfare in neighboring El Salvador and increasing tensions between Honduras and Marxist Nicaragua, HONDUTEL has been forced to comply with, as well as work along with, military supervision. Every new candidate for a ham ticket must first be cleared through such military channels before being issued the license by way of HONDUTEL, thereby lessening the chances of subversive elements using the ham privileges to the detriment of the existing government.

Regarding the lighter side of Amateur Radio in HR-land, there are four major ham clubs: El Radio Club de Honduras, located in San Pedro Sula — a large city in the northwest, close to Guatemala and Belize; El Radio Club La Ceiba in La Ceiba; El Radio Club de Crach in Tegucigalpa, the capital; and El Radio Club de Tegucigalpa. The San Pedro Sula Club has the most members.

On 1-3 July of this year, the Radio Club de Honduras will not only be celebrating its 25th anniversary, but also sponsoring — with HR2AMC as the organizer — the very first National Convention of Honduran Radio Amateurs. Alfonso asked that I convey his cordial invitation to all U.S. amateurs.

Furthermore, in September of this year, barring unforeseen problems, Honduran hams will be embarking upon their first DXpedition, being transported by military helicopters to the remote area of La Mosquitia within the country itself. Presently, HONDUTEL and the military are weighing the possibility of assigning new prefixes for this event, but as of now, no final decision has been made. Further information about this planned DXpedition will be sent to me and then relayed to Worldradio.

CHARLES "DOC" SCHWARTZBARD, AF2Y
Clifton, New Jersey □

QSL info on FO8JP

Maybe someone would like this one. I'm Novice, so could not go down to 21.070 MHz. Tom FO8JP, Bora Bora Island, on 21.070 MHz, at 1747Z, 17 April 1983. QSL via Daniel Taquet, F1BBD, La Petite Rue, Esqueheries, F-02170 Le Nouvion en Thierache, FRANCE. Tom is not listed in the '83 DX Callbook.

GEORGE KOMAREK, WD0CRY
Omaha, Nebraska □

Career Novice — is there such a thing?

The letter from Lee Allen, W5VJT in the February issue of **Worldradio** (page 18) about Novices was interesting. However, statements were made that raise some questions.

Lee complimented the permanent, I shall call them Career-Type, Novices on their ability of "doing the impossible and doing it on the over-crowded Novice bands." Sounds great, but what does "it" mean? What is the definition of "it" in this statement? In doing the impossible, does "it" mean blast your way through with more power, higher speed and disregard the struggling newcomer? I'm sure Lee didn't mean to imply this with his statement, but having experienced some of this while occasionally monitoring the Novice frequencies, "it" does raise a question. Also, while doing the impossible, isn't the Career Novice contributing to the overcrowding by not upgrading to General?

Now for a moment, let's look at another aspect of this situation. What is the Career Novice contributing to the Amateur Radio Service? He has improved his CW speed to 15 wpm or higher, but has he improved in the operation and maintenance of station equipment? Does he help the new Novices on the air or unknowingly scare them off with his high speed? Stop and think back to the time when you were first getting on the air. How many times were you scared off by hearing someone breezing along at 15 wpm or better; you were having a tough time trying to put things together at 5 to 8 wpm! Unfortunately, I have to ask whether the Career Novice is really good at CW or if he is using a keyboard and reader to accomplish the higher speed QSOs.

Another statement by Lee: "Their time is spent operating, not studying to upgrade." This sounds great on the surface, but look a little deeper. Could the real reason for not upgrading be the fear of failing the exam? With these questions in mind along with some others, I have to disagree with Lee. All Novices should be encouraged to upgrade. By upgrading to General, they will be doing themselves a service as well as others. They will have more frequencies in which to put their CW ability to use. They will help relieve the overcrowding in the limited Novice frequencies, and will give all Novices an incentive to upgrade should the FCC make the Novice license five year nonrenewable.

Also, the statement, "When working some of the Extras, you should QRS" is out of place. The question to be asked here, before belittling any class, is who has contributed more to Amateur Radio Service — the Extra who would rather spend time learning more about his hobby or the Novice who would rather spend time operating?

One last point: according to Webster's New Collegiate Dictionary, the definition of Novice is new, inexperienced, beginner. Does this describe a Career Novice?

LEW GORDON, KA1CFO
Old Lyme, Connecticut □

Another NO on PR Docket 83-28

William J. Tricarico
Secretary, FCC
RE: PR Docket 83-28

To the rule-making commission and all parties concerned: Code, like the 4th of July and Apple Pie, is very much a part of our American heritage. I must stand my ground and say *NO NO NO* to this codeless unwarranted fiasco that the FCC now proposes. If these new amateur operators to be are so intelligent and well disciplined, then the simplicity of 5 wpm of Morse code should be an easy task for them to conquer. Progress is much needed and welcomed, but not when it has the chance to undermine a solid structure such as the Amateur Radio Service and community.

Morse code was and still is the foundation of this noble and most useful service. So I ask this of the FCC — why change a viable service for the wants of so few, for the almighty dollar? These standards that have served so well to deter the less ambitious should stand and prevail.

If these new amateurs to be do not wish to waste their time and efforts on Morse telegraphy, then the present no-code fiasco, better known as citizens band, is the ideal playground for their phone and computer world-only license. Why duplicate the mistake twice? They will not be burdened with time spent working for an amateur license. They only have to submit a Form 505 and receive their codeless license, and no effort has been spent or wasted on their part.

Do I hear the earth tremor as Hertz, Maxim, Marconi, Ohm and most of all Samuel F.B. Morse roll over in their hallowed grounds? Also to you Senator Goldwater, K7UGA, a *champion* of our hobby and service, I say to you, sir, stand our ground and hear our plea. Say the needed no's and nay's to this codeless panacea being proposed. The International Morse Code can be heard when no other signals can be, and it is the cornerstone of the hamdom community.

Let the DITs and DAs ring out loud and clear to send our message of *NO* for this codeless license, for it is an ill wind that is trying to blow.

JOHN JASIONKOWSKI, KA8MSV
Toledo, Ohio □

Alarmed at the no-code possibility

Federal Communications Commission
Washington, D.C. 20554
Attention: William J. Tricarico, Secretary

Dear Mr. Tricarico:

The intention (as stated) by the FCC to *enhance,* not necessarily enlarge, the Amateur Radio Service *is* most commendable.

The technology of tomorrow and, perhaps, the very salvation of all mankind, must, of course, come from the youth of today. We must encourage them to think and to dream. To be interested and inquisitive. To experiment and develop. To be productive. But first, we must instill in them the *desire for* learning and knowledge. This can best be accomplished by recognition and commendation for personal *achievement.* It cannot be realized by a "give-away" program with a no-code license.

The assurance of a stiff written theory test, without CW, is — at best — only a cop-out. The FCC's implication that "there are intelligent, disciplined persons who can make a valuable contribution to the Amateur Radio Service without proficiency in Morse Telegraphy," is, in itself, very questionable. Hopeful digital experimenters and/or computer enthusiasts who do not have the integrity, the fortitude, the self-determination, the *discipline* to accept the personal challenge of the code requirements, are highly unlikely to make meaningful additions to the Amateur Radio Service, and — more importantly — to society, itself.

The acknowledgement of Canada and Japan having a class of license that does not require proficiency in the Morse code is irrelevant to the issue, with regards to the United States of America. No matter if we are unaware of any difficulties they may or may not have experienced. This is like comparing apples with oranges. To follow their format does not necessarily mean achievement tantamount to our goals. Let us strive for excellence in all facets, our standards and requirements high. A position for *others* to admire, respect and imitate.

Those who lobby for relaxation because of personal aspirations, will, likewise, be disappointed in the long-term. Without the personal commitment and achievement, without a goal, there is no meaning and interest is soon lost . . . along with the projected market.

I find it incomprehensible and am appalled that such an apathetic, biased attitude toward the implementation of a no-code license would be endorsed by the Federal Communications Commission.

Thank you for your attention.

MERON STANLEY, N9CKY
Decatur, Illinois □

Exams should change emphasis

I read with interest the article by Bill Grenfell, W4GF, in the December 1982 issue, and the letter from Darlene Mills, NO6G, in the February 1983 issue in regard to Dick Bash and his books/seminars. I would like to add my thoughts (fuel) to the controversy.

Late in 1981, after 22 years in Amateur Radio, I began to study for a potential upgrade to Extra. It became quickly apparent that the ARRL publications were incomplete. In fact, ARRL even states they are incomplete and that additional study of other representative publications is required to pass the FCC examinations. I took them at their word and used the Bash book as a "Final Exam" in preparation for the test. The result? I passed on the first try, with little thanks to the ARRL License Manual.

I think it is sad that ARRL takes the approach it does toward providing license material for the budding/upgrading amateur to study. I don't believe that any teacher can develop a course of instruction on any topic without knowing specifically what the student will be asked on the exam. The teacher will be guaranteed to waste a lot of time teaching non-pertinent material and to miss material required by the developer of the exam. But this is the ARRL approach, and this actually *encouraged* Bash and his imitators to leap in and fill the void with pertinent material.

I think it is time that ARRL and the FCC begin to realize that Amateur Radio has evolved from the spark days when every amateur was an active experimenter. Today, most amateurs are mainly communicators and operate commercially built gear out of necessity. This gear is usually all solid-state, multiband and multimode, with digital VFOs, and use highly integrated circuitry. These are designed by a staff of engineers and require highly sophisticated equipment for testing and alignment. Such equipment and such skills are way beyond most *amateurs*, and I stress the word. Even Heath, the venerable kit developer, recognizes this in its latest product, a state-of-the-art transceiver that is sold fully assembled and tested and is not available in kit form.

The FCC should now stress the amateur's communications role, and the exams should reflect this new emphasis. The exams should contain revised technical material to verify that the amateur has a solid basic understanding of the equipment, how to install it and how to operate it. An example of a key item would be how to deal with TVI/BCI — a skill that is lacking in most amateurs and which is not covered in any depth on the present-day exams. Also, CW skills should remain a vital part of the exam to ensure that the amateur is capable of handling a mode of communication which is authorized by the FCC and by international treaty.

With careful thought, a series of exams of increasing difficulty could be developed which would encourage the ham to expand his knowledge of *communications*, and would be supportive of the grades of license required by incentive licensing. The ARRL could provide teaching material which is pertinent to the exams (not a Bash-style question and answer study guide), and which would encourage the amateur's development of the required skills and knowledge.

In the final analysis, we need to maintain the distinction between Amateur Radio and CB. We represent a semi-professional *service* with broad use of the spectrum and with international scope and responsibilities. If the FCC and ARRL do not recognize that the service has evolved, and take steps to cope with it, then the Amateur Service will degenerate into a group of scofflaws, and we could easily lose our privileges in the next international treaty.

TOM FLEMING, WA4N (ex-K4HMD)
Sarasota, Florida □

Retired? Welcome to the club!

Here is some information on perhaps the most unique radio club in America. This will be of special interest to the amateurs of California.

Twenty-five years ago, four retired individuals with common interests organized a retired men's organization known as SONS IN RETIREMENT, INC. There are no initiation fees or monthly dues in this great organization. To make a long story short as possible, this great organization has grown so rapidly that it now has a California State Governing Board, with 107 branches, with a total membership of over 25,000, covering the area from Salinas to the south; Chico and Paradise to the north and Stockton to the east. Each branch has a membership from 200 to 450, depending on space for a monthly luncheon. The organization expense is met by contributions from those attending the luncheon.

In 1974, I had the honor of serving as Big Sir (president) of our local branch of 350 members. Subsequently, I was elected to the office of California State Secretary; followed by being elected as vice president and finally as state president, a special honor which I will always remember.

In 1974 we had three amateurs in our local branch, and the thought occurred to me that there must be many other amateurs in the various branches who might be interested in organizing a statewide radio club for the organization, since the organization has every known activity for the retired individual. Accordingly, I addressed a letter to all of the branches asking any amateur in the branch who was interested to contact me. Much to my surprise, in three short months I had a response from 55 amateurs. With this support, I went into action immediately, and SIRARC (shoft for Sons In Retirement Amateur Radio Club) was born. Today, after nine years, we are proud of a membership of 203. These are active members; if a member shows a lack of interest within a year, he is dropped. SIRARC is not a traffic net, as such, but it stands ready to handle any break-in emergency.

For eligibility to SIRARC, one must first be an active member of the parent organization SONS IN RETIREMENT, INC. To maintain membership in SIRARC one must: 1) Retain his membership in the parent organization; 2) Show a continued interest in SIRARC by participating in one of our weekly nets, attending one or more of our three-year monthly husband and wife luncheons or mailing in a contribution to the club, as there are no dues, and expenses are met by contributions of those attending the luncheon and those unable to attend.

SIRARC has eight weekly nets in operation. Visitors who are eligible in becoming a member of our Parent Organization, SONS IN RETIREMENT, INC., are welcome to break in. These nets are as follows:

Day	Time(a.m.)	Frequency	Mode
Tues.	8:00	7085 kHz	CW
Tues.	10:00	145.80 Mhz	AM
Wed.	9:00	7275 kHz	SSB
Thurs.	8:00	3770 kHz	QRQ-CW
Thurs.	9:00	3725 kHz	QRS-CW
Thurs	10:30	146.85/.25 (thru WA6QFR/R)	FM
Fri.	8:15	3770 kHz	CW
Fri.	10:00	3925 kHz	SSB

While the average of SIRARC members is 35 years on the air, we welcome any eligible member regardless of class of license or years of service.

MILLARD GEORGE, K6ZRY
El Cerrito, California □

Name-dropping

Ever wonder how many celebrities enjoy the hobby of Amateur Radio? The answer is: quite a few. Listed here are some of them: Arthur Godfrey, K4LIB (entertainer — now a Silent Key); Joe Rudi, WA6PVA (baseball star); Barry Goldwater, K7UGA (U.S. Senator); Ronnie Milsap, WB4KCG (singer); King Hussein of Jordan, JY1; Stu Gilliam, WD6FBU (TV actor and comedian); Donny Osmond, KA7EVD (singer); Bob Melucci, KD6BD (assistant football coach with San Diego Chargers); Manny Moto, HI8MMJ (player/coach of Los Angeles Dodgers); Byron Paul, WA6RNG (TV producer and actor for CBS); Jean Shepherd, K2ORS (author and humorist); Howard Hughes, 9CY (old call from 1920); Owen Garriott, W5LFL (U.S. astronaut); son of the late Shah of Iran, EP1MP; Anastasio Somoza, YN1AS (former Nicaraguan dictator).
— *Mount Pleasant, Iowa ARC* □

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.*** □

STATION APPEARANCE

Robert A. Cook Jr., KX8Q, of Perrysburg, Ohio, is our Station Appearance winner for June. Robert can be seen in the photo, sitting in one half of his shack. The other half, Robert says, is taken up by computers. Tool drawers and a QSL rack occupy the far left wall; the far right wall is for his 2-meter FT221-R and Heathkit VL2280 linear amplifier. On the wall opposite the radios is a workbench.

Now for a description of KX8Q's radio equipment:

Drake equipment: L-4B, R-4C, T-4XC, C-4, MS-4 (speaker and power supply), Eiko (5" oscilloscope), E-Tek frequency/counter/readout, MN-2700 and balun. Two homebrew Pioneer speakers in 1"-thick walnut. R/S cassette, phone patch, TA33 Mosley (70') and 10-80 B&W trapped dipole — all hooked to C-4. Heathkit 8-place frequency counter; ham keyer and paddle. Two meters is FT221-R; 2-meter all-mode amplifier; Mirage SWR; ARX2 Ringo on second tower at 80 feet and Cushcraft twist at 65 feet. Also, a YO-100 Yaesu monitor/scope.

The console for radios is made of ¾"-thick beech and maple. The whole rig sits on a solid wood 3' x 6' desk.

The computer equipment includes:

TRS-80 Model I, Lev. II, 48K memory, up/low case conv., real/time on/off modification. Four disk drives. Two cassettes. Heathkit H14 printer and mods. Crown ROM 116 and IRL-S00 for computerized RTTY. Homebrew computer console.

"I have been a ham since retiring," writes Robert. "Am 56 years young. Went from Novice to Extra in about two years. Retired in December 1980. Would like to see my shack in the pages of **Worldradio**, but if not, it gave me a great deal of pleasure just to describe it. hi hi I belong to the Greater Toledo Amateur Radio Association."

Robert will be receiving a free year's extension of his subscription to **Worldradio**.

American Radio Relay League

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

Restrictive antenna ordinances and zoning laws that limit the height and size of Amateur Radio antennas continue to plague amateurs at the local level. Local battles over Amateur Radio antennas and the rights of amateurs to pursue their hobby have been with us almost since the first radio amateurs started transmitting over 75 years ago.

The League continues in its concern of protecting the rights of ARRL members and the Amateur Radio community in general, although such cases are so numerous and costly that even the League cannot afford to finance a defense of each and every case.

Fortunately, amateurs generally come to the aid of their fellows and local funds often have been set up to defer at least some of the costs of fighting restrictions.

In my travels in Amateur Radio circles, I find that even though ARRL has made many efforts to educate members and amateurs on the problems of fighting local jurisdictions in such cases, there is still much misunderstanding of what they can do to help out.

Problems with Amateur Radio antennas have grown in the last 25 years for two major reasons. One is the fact that TVI — and to an extent, "hi-fi" interference — has caused many neighbors to attack amateurs and force them to remove antennas, in the hope of taking them off the airways.

The other major cause of antenna cases is largely due to the advances amateurs have made in antenna and tower construction. It is not uncommon now to have complex beam antennas with heights of 75 feet or more.

Certainly there can be no doubt in the minds of neighbors of such amateurs that there is radio operation, and of course the poor amateur gets blamed for any slight TVI, or what is thought to be TVI, or even other kinds of electrical problems such neighbors may have or think they are having.

Many "lay" people view large beam antenna systems as "eyesores" and often fight them on this ground alone. Perhaps there is also fear of what might happen if such an antenna system were to fall and the resulting dangers, although some would be glad to see them fall down.

Most often, the result of complaints on the part of many citizens about a particular amateur can lead local government leaders to draw up highly restrictive ordinances, which might limit amateur antennas to no more than 25 or 30 feet high.

In most cases, local radio clubs will come to the defense and work to at least come up with some reasonable compromise height of 50 or 60 feet. Many amateurs feel this is not nearly high enough.

I know an amateur who at one time had a complex stacked antenna system at a height of 125 feet on a 50-by-100-foot city lot. I asked him if it was really worth all the effort, and he replied that in a contest, he could count on working DX at least one-half hour longer than other local stations when a band was starting to come in or go out.

Certainly to this amateur, height did count, and might in fact be the difference of being "number one" in an amateur operating contest. But it is hard to explain this need to an average citizen. Does the amateur really need such a high antenna? Well, not actually, because he "could" talk to amateurs anywhere in the world with much less antenna.

One of the major defenses that amateurs use in the case of antennas and towers is that the federal government has pre-empted Amateur Radio tower regulation under the Communications Act of 1934 as amended. But the question of zoning and specific antenna regulation by local governments has not been completely tested in the courts. Thus far, these local governments have won many rights for local zoning ordinances, although amateurs have made some gains on the basis of federal pre-emption.

The League has given direct financial support to individuals fighting antenna cases when there is a chance that a good precedent can be set, and the amateur has a reasonable chance of winning the case.

The ARRL also has the problem of educating amateurs on how best to minimize chances of being attacked by neighbors because of large antennas or supposed or real TVI. Amateurs often become very defensive when they feel they are being attacked by neighbors because of their amateur operation.

Sometimes, this overreaction on the part of an amateur when he is approached by his neighbors only makes matters worse and results in a larger neighborhood battle. Even neighbors who have never been bothered by an amateur suddenly find all kinds of problems when someone comes to them saying they must be experiencing interference by that "eyesore of an antenna."

Thus, it is up to all amateurs to try and maintain good relations with their neighbors without giving up their rights to operate a radio station under the authority of the FCC license they have earned.

It pays the amateur to put himself in the place of his neighbor who may really be experiencing interference, even though it is not the fault of the amateur. It's much better to try and work out a solution and educate one's neighbors as to the real causes of TVI. And if there *is* any TVI caused by the radio equipment, solve this first.

The ARRL will continue working toward a permanent solution to the problem of restrictive ordinances and zoning laws. Hopefully, amateurs will do their part in helping solve this problem.

Let's try to put our best foot forward when we have a TVI or other problem and work in as positive a way as possible to find solutions and make friends for Amateur Radio. The worst thing to say is, "You can't stop me from using my station." □

West Virginia news

Ted Wolfe, WD4KHL

West Virginia's 1983 State ARRL Convention and Hamfest will be held at the State 4-H camp at Jackson's Mill on Saturday and Sunday, 2-3 July. The "Amateur of the Year" award — sponsored by the State Radio Council — will be presented during the convention. The Bluefield, West Virginia Hamfest will be on 28 August this year.

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The RTTY group at St. Albans will be moving their K8BCH repeater off the 147.96/36 frequency pair because of interference from another repeater on the same pair in Scioto County in the neighboring state of Ohio. St. Albans will move its RTTY machine to 147.975/375.

Clyde Marshall, WD8KOY, is heading up the project of a number of active or retired employees of Appalachian Power Company who are amateurs, and are planning to activate a 2-meter repeater from Bee Mountain near Marmet in Kanawha County. The group has coordinated the 144.53/145.13 pair with the Southeastern Repeater Association, the five-state volunteer amateur frequency coordinating body.

•

As West Virginia Director of CVRA/Southeastern Repeater Association, I often have to field questions about the repeater listings in the CVRA/SERA quarterly *Journal*. One inquiry was about the Pie Horse Mountain N8APH 144.67/145.27 listing. Well, there's only so much space to list the location in the table. We try to list a community you can find on the map, as well as the geographical location if it's a mountain top. The small community of Pie is on the Logan-Mingo County line on U.S. Route 52. The repeater is atop Horsepen Mountain. The "pen" gets dropped from "Horse" because of space limitations.

With AMTOR now legal for U.S. amateurs on 3-30 MHz, I wonder how long it will be before we see some "digipeaters" in the Mountain State. Perhaps that will come when amateurs who have been getting heavily into microcomputers learn more about them and learn they should be compatible with AMTOR as well as electronic RTTY. □

DX WORLD

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

Activities Calendar

28-29 May CQ World Wide WPX Contest (CW)

W-100-N

There was another run on the **Worldradio** Worked 100 Nations Award, most likely due to the relaxed requirements now in force. No longer are the QSL cards required to be sent with the applications. You must certify that you have the QSL cards in your possession.

194.	VE4AEX	H.V. "Vic" McKinney
195.	W3LPI	George B. Kabroth
196.	W3YAF	Thomas V. Winn
197.	KB3OQ	Michael F. Wilson
198.	NA4D	Lloyd C. Curry
199.	W4JF[illegible]/7	Frank F. Merrill
200.	W6QEU	Peter K. Onnigian
201.	W1DOH	Charles A. Lukas, Jr.

Tom W3YAF favored CW for his award, although he did not indicate what band or bands were used. This is what can happen when you use those DXCC application forms. Be sure to indicate what band your contacts are made on in future applications.

Frank W4JFE completed his requirements all on 20 meters, SSB, from his Oregon location.

Mauritania (5T5)

5T5CJ shows regularly near 21.290 MHz during the week from 2100 UTC and is absent from the bands on weekends, as he has no time available. Also from Mauritania is 5T5RY, who has been reported near 14.210 MHz from 0030 UTC, and 5T5TO who has been found on CW on 21.025 MHz around 2200 UTC.

Nigeria (5N)

Seventy-five meter buffs might snatch 5N8ARY near 3.795 MHz from 2300 UTC; he has been reported to stick around for an hour or two. This station has also been reported on 10 meters near 28.519 MHz around 2100 UTC.

Another active station from this country is KC7UU/5N6, who operates both CW and SSB, 80 through 10 meters. This station is not used to pile-ups and has resorted to list or net operation.

China (BY)

BY1PK now has a tower-supported beam at the new location in Beijing and has been putting a good signal into the East Coast as reported in *The Long Island DX Bulletin.* Look for him near 14.070 or 21.050 MHz from 0030 UTC. BY8AA is still in there and moves up and down frequency for sort of "Russian Roulette" contacts. Additional stations rumored to be on soon include BY1QH and BY2DF.

30 March at 0135 UTC marked the time of the first SSB amateur contact with China after more than 30 years. The occasion was still another visit by Tom Wong, VE7BC, to BY1PK, and the demonstration of how the pile-ups would sound to their end, spread from 14.200 to 14.210 MHz.

Don Wallace, W6AM, on SSB on 14.207 MHz, made the first successful contact with BY1PK who was operating CW on 14.170 MHz. The first SSB to CW contact lasted for about 10 minutes, followed by several other short contacts with West Coast stations. The demonstration lasted for about 30 minutes. BY1PK was operating from the old location.

The *DX News Sheet* reports that in September there will be a Hong Kong to Beijing Car Rally, where Amateur Radio will be used to keep in contact with the competitors. Stations will be located in Hong Kong (VS6HK), Wuhan (operated by VS6HJ and 9V1VI or JA1MIN), Beijing (the Beijing Hotel operated by G4LJF and VS6DX), and a mobile station accompanying the rally (operated by N9TG). The operators are reported to be too busy to work DX and will be signing with their own calls followed by stroke BY. Personally, I am a "doubting Thomas" on this one.

World Communications Year

Additional national societies are encouraging activity to salute the World Communications Year 1983. On 21 May, eight special calls will be found on the bands, sponsored by the New Zealand Association of Radio Transmitters. These calls will all have the same suffix, ZL1WCY through ZL9WCY, and will be multi-operator, all bands and all modes. Sharp minds will say this is nine calls, but our source said eight calls.

All contacts will be automatically confirmed. But, if you prefer an airmail confirmation, enclose an SAE with 3 IRCs via ZL2HE or to the NZART QSL Bureau, P.O. Box 40-212, Upper Hutt, NEW ZEALAND.

Prefixes

During the recent CQ World Wide WPX Contest, a few Brazilian amateurs were signing with the ZY1 prefix. This special prefix was used by stations in Petropolis to commemorate the 40th anniversary of the Imperial Museum in Petropolis. If you worked ZY1DFF or ZY1BFZ so may QSL via PY1BFZ. Cards for ZY1JF go via PY1DOQ.

A station signing 4N0ATC was reported the latter half of March from the International Federation of Air Traffic Controllers Associations Conference in Yugoslavia.

New Soviet Oblast

A station signing RI8LBU was reported recently from the recently formed Soviet Oblast 185. An existing oblast was divided in two.

San Marino prefix changes

During the month of April, the radio amateurs of San Marino changed their prefixes from the unofficial prefix of M1 to the following: T77A-T77Z — 1st Class licenses; T72A-T72Z — 2nd Class licenses, VHF and above; T70A — Club station; T71A-T71Z — Special 1st Class prefix.

Club station T70A was active 20 April, and a special card with first day World Communications Year stamp is available from: ARRSM, P.O. Box 1, REPUBLIC OF SAN MARINO 47031.

The Colvins

Lloyd and Iris Colvin, W6KG and W6QL, have just completed another one of their many DXpeditions and have returned to Northern California. They wrote from Amman, Jordan, the early part of April:

We have now completed our operation as JY8KG in Jordan. We made 8,500 QSOs with amateurs in 131 countries.

We have also now completed one-half year of operation in East Africa and the Middle East, and, this month, we are returning to the USA to be on the program at the Joint Meeting of the Northern and Southern California DX Clubs at Visalia, California and at the Dayton Hamvention in Dayton, Ohio. We made approximately 50,000 QSOs during the last half year's operation as J20DU, G5ACI/AA, W6KG/A4, W6KG/A7, HZ1AB, 9K2QL and JY8KG.

We have visited all of the Arab countries of the world except Iraq. Without exception, the top communications officials in the Arab countries have an understanding of Amateur Radio and are favorable toward it. When Amateur Radio operation is not permitted, it is usually due to objection on the part of the security officials. If and when fighting and political tensions diminish, we can expect more Amateur Radio operation.

Before we departed the USA last year, we planned our last stop to be in Jordan. We have not been disappointed. Due to the effort of JY1, His Majesty King Hussein I, and a group of dedicated radio amateurs in Jordan, there is a very active Royal Jordanian Radio Amateur Society in Jordan. They have a beautiful clubhouse and a first-class amateur station. Qualified visiting radio amateurs may apply for permission to operate the club station.

We plan to remain in the USA for several months, and then resume our travels and operation as the Yasme World Wide Dxpedition later this year. We will be pleased to show slides and talk about the Yasme DXpeditions at any meetings or radio clubs desiring our appearance.

Anyone who worked the Colvins from one or more of their many operations may send their QSL cards via the Yasme Foundation, P.O. Box 2025, Castro Valley, CA 94546.

Let's DX together

The following item appeared in the March 1983 issue of *Ham Gab,* the official newsletter of Hamfesters Radio Club in the Chicago area. The article was written by Phil Brankin, K9UAA, and presents some interesting comments on modern-day DXing.

I have been doing a lot of traveling around the country lately, and I have a lot of time on planes to think about DX and DXers. Some very interesting thoughts have been popping up in my mind and I would like to share them with you.

It is very rare when you will find me buying something that has been used. When I first got married about a hundred years ago, I had to have used cars because used cars were all I could afford.

We had plenty of problems with them and we spent a lot of money trying to keep them on the road. All of this convinced me that new was the only way to go.

Just after getting my General ticket, WA9NJB approached me with an offer to buy his Swan gear, which was now surplus because he had just bought a brand new Yaesu.

The price was just right and I snapped up his offer because I knew who the previous owner was, and I know he takes care of his gear just like I take care of mine.

Jack had worked 180 countries in this set and I made up my mind to work this many or more, just to see if I could better his record.

When I worked and confirmed the 181st country, I contacted Jack to tell him of my feat. I really felt good. I didn't know a thing about DXing when I started and had to call Jack three or four times a week for info and direction. He always helped.

Well, last weekend, flying back from Dallas I thought about Jack and his DXing compared to my fling at the game.

When Jack started there was no 146.46 available to give answers to problems. In fact, there was no one in the neighborhood who was a DXer. Jack had to answer his own questions and figure out his own problems. He didn't have an Elmer to call for ready aid.

In fact, Jack, who is a General, lost all the good frequencies when incentive licensing came to be. And lists and list-takers and Masters of Ceremony did not exist. You made it on your own or you just didn't make it at all.

Suddenly my numbers, which I thought were impressive, started to pale in comparison. In this day and age of 2-meter spotting nets and lists and list-takers, making 180 or 250 or 300 or honor roll becomes a lot easier.

It is now the time to tip our hats to those who went before us. To those who sat up all night in contests chasing the good ones on their own because no one else would do it for them.

It is time to recognize the excellent performances of those who worked DX 10, 15 and 20 or more years ago. And it is time to listen to these pioneers when they tell their tales about the courtesy and consideration that was commonplace on the bands.

The policemen had never been heard of then. Tail-ending was a practice that was frowned upon and only Alpha Hotels engaged in it. What is an Alpha Hotel? Give a call to Jack, WA9NJB, some day and ask him. All the old-timers know the answer.

The next time you are in a big pile-up, try to act like the old-timers did and be courteous and helpful. You may get trampled into the woodwork by all the new breed of DXers, but at least you will be acting like a gentleman or a lady, and that is the way Amateur Radio used to be and should become again.

Five by nine

I think you will enjoy this item that I

lifted from *The Beam*, a publication of the Stark DX Association in Canton, Ohio. The calls used here *have not* been changed to protect the innocent.

KC8PX: Hey Ron, you on 2?
WC8PVC: Yeah, what's up?
KC8PX: There is a TM2WHO on 14.220; let's get him!
WC8PVC: OK, I'll meet you there.
KC8PX: Thanks for the report OM; I have a friend that would like a contact with you also, if you wouldn't mind? Call him Ron.
WC8PVC: TM2WHO, this is WC8PVC, . . . you are a solid five by nine here OM, how copy?
KC8PX: Again Ron.
WC8PVC: TM2WHO, you are five and nine . . . FIVE AND NINE from OHIO . . . over.
KC8PX: Ya got him, give your report again.
WC8PVC: WC8PVC, returning . . . five by nine . . . one-two-three-four-five . . . one-two-three-four-five-six-seven-eight-nine, solid here OM; . . . back to you.
KC8PX: OK, Ron, he QSL's . . . now he is giving your report . . . Ron, ya got it??
WC8PVC: Well, I guess — if *YOU* did!
KC8PX: Go ahead, he wants you to QSL the report!
WC8PVC: Uhh, yes! Thanks for the five and nine OM!
KC8PX: Nooo . . . no, Ron; that's not it!
WC8PVC: Ahhh . . . thanks for five and eight??
KC8PX: NO, tell him to count it out.
WC8PVC: Sorry OM, we have some bad QRM here, . . . Please count it out . . . over.
KC8PX: OK, he's counting . . . DIDJA HEAR YOUR REPORT? . . . WELL, GO AHEAD!
WC8PVC: Thanks for the big five and seven OM.
KC8PX: JEEZ, RON — WRONG AGAIN!! . . . have him do it again.
WC8PVC: Sorry OM, that QSB here again . . . count again, . . . Ahhh, was it it three and six??
KC8PX: NO!
WC8PVC: Err . . . ahh, five and four??
KC8PX: LOWER.
WC8PVC: I KNOW! THANKS FOR THE FOUR BY TEN!!??
KC8PX: WHAT ARE YOU SAYING???!!! . . . LOWER.
WC8PVC: Two by ten?
KC8PX: #@*%¢, NO THE OTHER ONE.
WC8PVC: Two by seven!
KC8PX: SAY RONNY BOY, I GET THE FEELING YOU *REALLY* DON'T HEAR THE TM2 . . . Up ONE on the FIRST, and DOWN TWO on the SECOND.
WC8PVC: OHHHH, . . . THREE BY FIVE . . . name RON from OHIO, 73 from WC8PVC.
KC8PX: YEAH, yeah you got it Ron, GREAT . . . How many ya got now for the ol' list??
WC8PVC: WELLLL, that puts me up to the big 136 now; DXing really is fun once you build up the old skill, keep the antennas up and run the linear for all it can do!, but you know old buddy — It's getting so a GOOD DXer like ME just can't find any real challenges in DX any more; RIGHT OLD BUDDY?
KC8PX: (click)
WC8PVC: Say old friend — WHEREJA GO??

Spratly

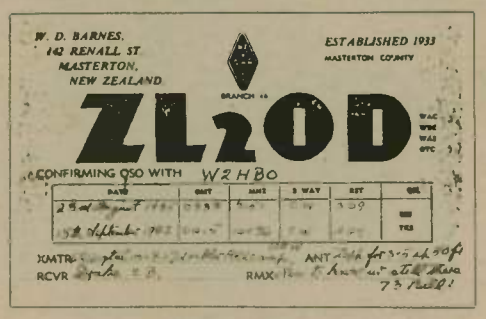
The story of the dastardly attack by the Vietnamese, which resulted in two deaths, is told on the front page of this issue of **Worldradio.**

Please
send NEWS and PICTURES to
Worldradio

Miscellanous comments

A couple of issues ago we printed a list of DX nets and gave Bob Truhlar, W9LNQ, credit. Bob, who submitted it to his club paper, *Ham Gab,* says the credit should go to Ed Konop, W3WGS, as he was the originator of it.

Mary MacKenzie, KA7FEF, informs us of an International Ham Convention in Lisbon this coming November. Sponsor of the convention is the Portuguese Emitters Net, (more or less the Portuguese ARRL counterpart). Interested parties should contact: Rep. R.D. Pedro V, 7-40, Lisboa E, PORTUGAL.



George Keller, W2HBO, sent us a copy of a recent QSL card that he received from ZL2OD of Masterton in New Zealand. The card confirms two contacts — 47 years apart. The first contact was 23 August 1935 on 7 MHz CW with the second contact on 15 September 1982. George says that Bill Barnes, ZL2OD, is still using homebrew rigs, crystal-controlled. Both stations have held the same calls after all these years.

The Redwood Empire Award

The Redwood Empire DX Association announces a new Redwood Empire Award. This is not necessarily a DX award, although it is issued by a DX club. To qualify for this award, you must work an amateur in each of the five coastal counties of Northern California. Northern California in this situation is north of the Golden Gate Bridge; (Northern California is really north of the Tehachapi Mountains). The counties in question are part of the Redwood Empire — Marin, Sonoma, Mendocino, Humboldt and Del Norte.

All bands may be used and the award is endorseable by band or mode. To apply for this award, send a certified list of contacts with a fee of $2 (or 7 IRCs) to: The Redwood Empire DX Association, P.O. Box 4881, Santa Rosa, CA 95402.

P75P

This award is sponsored by the Central Radio Club of Czechoslovakia for working the ITU zones of the world. This is not to be confused with the WAZ (Worked All Zones) offered by **CQ Magazine.** The ITU zones were designated by the Geneva Convention 1959. The award is offered in three classes as follows: 1st Class — 70 zones; 2nd Class — 60 zones; 3rd Class — 50 zones.

The zones should be determined in accordance with a special map and list of zones and countries, available from the CRC for 3 IRCs. Those of you who have a copy of the foreign edition of the Callbook will find the ITU zone given for each of the countries listed, in addition to the CQ WAZ zone. All contacts made since 1 January 1960 count.

The award is issued free of charge only for members of clubs and associations accepting this rule reciprocally. The fee for all others is 10 IRCs. Those of you who are members of the ARRL can apply for this free of charge, as the DXCC is offered free to amateurs outside the United States and Canada.

QSL cards are required for this award, although the cards need not be sent when the national-level Amateur Radio society or club confirms the possession of the listed QSL cards. Include a list of your contacts with the application, which must contain the locations of listed stations.

Send your application to: Central Radio Club, Awards Manager, P.O. Box 69, 113 27 Praha 1, CZECHOSLOVAKIA. Note: ARRL Headquarters is not equipped to check your QSL cards for these awards.

The Original WAZ

"The WAZ scheme is, we believe, the best attempt yet to establish a better means of measuring DX achievements, and a fairer basis of comparison of DX records." So states the January 1937 "Yearbook" issue of **Radio.**

At least two readers commented on my remark that the WAZ program was established by **CQ** which began hitting the newsstands back in 1945. What does surprise me is that no one from the **CQ** staff corrected me on this. According to **Radio,** the WAZ program was originally introduced in **R/9** in November 1934. A map was included with the 1937 magazine version and the zones are the same, except for some minor variations in zone boundaries that were changed by **CQ** long after they assumed the program. A copy of the 1937 article was submitted by Chuck Bolvin, K4KQ, who claims he never made the WAZ list before WWII. Chuck was then signing W8LVV and W7GMA.

There was a WAZ "Honor Roll" in this issue, and no one had all 40 zones. There were eight who had at least 39 zones worked, whose calls are: G2ZQ, W3SI, W6CXW, W4DHZ, W8CRA, W6GRL, W6ADP and W3PC. Those amateurs who claimed 38 zones were W9TJ, G5YH, G6WY (now VE3BWY) and W6CUH. What is really amazing is that Don Wallace, W6AM, only had 36 zones. Close behind Don was another Southern California DX Club type — Fred Gillett, W6HX, with 35 zones.

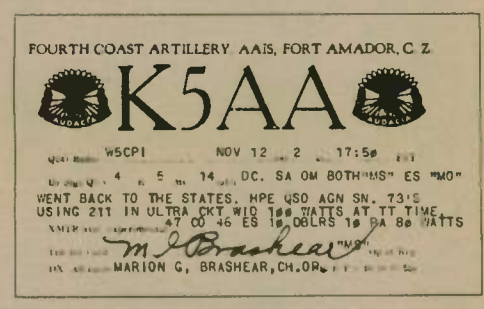
There were only three amateurs listed on the Phone WAZ "Honor Roll"; W5BDB 27, W6AM 23 and W6ITH 21; the last two are still active DXers. Sorry, but I am not familiar with W5BDB.

Dick Howard, K7DVK, was the other reader who picked up on my WAZ comment. Dick writes, "If you open your February 1936 issue of **Radio** (the West Coast **QST**) to page 34, your puzzle will be solved. **CQ** didn't originate WAZ or "Scratchi," but they have carried on the tradition. **R-9** and **Radio** merged in January 1936."

So, there you are. I had commented several times in the past about my confusion with this pre-war WAZ as **CQ** had still not yet made the scene. It never occurred to me that it was not **CQ** who originated the program. And that "Scratchi" that Dick mentioned, you will have to look up some past issues of **CQ** (a good many years back) to get that one. Although "Scratchi" was rather witty, it would be unfair to some in our modern society.

Antique QSL Department

The call K5AA was assigned to an Army unit at Fort Amador in the Canal Zone. Jack Harkins, W5CPI, submitted this card a few years ago, which we dug out of our files to complement the NY2AE card. Jack made the contact with K5AA at the end of 1932 on 20 meters which I assume to also be a phone contact. The operator was indicated as Marion G. Brashear.



The K5 prefix was later replaced by the KZ5 prefix, which was used for many years up to the time a former president of ours gave our canal away.

QSL information

We make it an attempt to give a large

selection of QSL routes each month. These routes come from the reports in the various newsletters, what we hear given over the air and from individual readers.

Marvin Bowman, WB0ERO, writes, "Need info where to send QSL cards in foreign countries for working all their call zones: ZL, JA, DL and VE."

Marvin, I'm not sure what you mean. Do you mean where to send QSL cards to for the foreign countries, or to apply for an award from each of those countries for working all their call areas? If you mean where to send QSL cards for confirming contacts that you made with DX stations, try the ARRL Overseas QSL Bureau, provided you are a member of the League. If not, try one of the several commercial QSL services or the QSL bureau of the countries you work. The QSL bureaus can be found in the Callbook; the commercial QSL services advertise in your favorite ham magazine. If you mean where to send to countries who sponsor awards for working all the call areas, that is a different issue. There is no award for working all the German call areas we know of, but there are many countries in addition to what you listed that do issue such an award.

I suggest you review the 'Awards' column in **Worldradio** or the other publications for such awards. It is suggested that those of you who are interested in such awards purchase a copy of *Amateur Radio Awards* (Second Edition), published by the Radio Society of Great Britain.

Bob Hatter, K7RDH, needs help in a possible QSL route for EP2JJ, operator "Jim" (Charles Grove). The date of the contact was 14 October 1978, and Bob says he definitely was an American operator, who said to QSL via Box 66-1437 in Tehran. Any suggestions?

A note was received from Lewis Hegyi, N2BPO, says that the 1983 Callbook address for WB9TIY, (QSL manager for VP5KMX), is obviously incorrect. I don't know where he came to those conclusions, and it has not been checked out. It has been suggested in the past that QSL managers have their addresses correct in the Callbook, and, of course, have their calls listed in the Callbook.

QSL routes

A35XX	—DJ0FX	OX3XR	—OZ3PZ
AH9AA	—KW6HF	P42J	—W1RM
CE0ERY	—WB6WOD	PA0LOU/YB3	—PA0LOU
CR9T	—WA4IKZ	PY0SA	—DK9KX
CR9Z	—JA1ELY	PZ5JR	—K3BYV
CX7BY	—W0IJN	S79MC	—AK3F
DK7PE/HB0	—DK7PE	SV1LV	—K2FS
DL1JW/HP1	—DL1KB	SV8CS	—G3FNJ
EA8SK	—DJ1KM	T2AWN	—VK3AWN
EA9KF	—EA9IE	T30CH	—W9SLT
EK9C/0	—UK9CAE	T30CJ	—VK3DAK
EK9D/0	—N8ACA		*(See Note 1)*
EW2A	—UK2AAB	T30CX	—VK3AWN
FB8W1	—F6GXB	T32AL	—WB7SIC
FK0AE	—F6EWK	T42AMC	—CO/CM Bureau
FM0HOR	—K6YRA	TA2TB	—DG6MGT
G4ABI/ST2	—G4ABI	TJ1AF	—N4IAM
GJ5DSD	—WA4WPO	TR8JD	—F6AJA
HH2JR	—KA5V	TT8AD	—HB9CLA
HK0COP	—W1UCW	TU2DP	—KC4IR
J28AZ	—I8JN	TU2LS	—K3GYD
J28DS	—DF6DZ	UA1PAO	—UK1OAA
J37XC	—W3BJI	V2AAW	—N0DH
J6LCV	—KA6DFI	V3HE	—DL1JW
J6LKG	—KE1A	V3TV	—G3ATK
J87LTA	—K4LTA	VE1CBK/1	—VE1AJH
JW4GN	—LA9VX	VE2DVG/4U	—VE2FEX
JY8KG	—Yasme	VG2CW	—VO2CW
K1BJ/3B8	—K1BJ	VK9YB	—KB9UV
K7NHV/VP2V	—K7NHV	VP2EA	—NE4R
K0OSN/V2A	—K4LTA	VP2EH	—KC5EA
KG4DX	—WB2CPV	VP2ES	—K8CW
LU2MM	—K1MM	VP2KBE	—K1IVJ
N8DCJ/8P6	—N8DCJ	VP2MBA	—W7FP
OH0BC	—OH2BH	VP2MDB	—W2WSE
VP2MGQ	—N4MO	ZL4DE/C	—ZL2HE
VP2VIT	—KC3H	ZL4OY/C	—VK3DWJ
VP2VJA	—W2OT	ZS3GB	—N0AFW
VP5KMX	—WB9TIY	ZS3HL	—KE1A
VP5SSX	—KB9AW	ZS5LB	—W2LT
VP8AOD	—K0JW	ZS6BPJ/ZS3	—ZS6BPJ
VP8MT	—GW4KGR	4K1A	—UA4HOV
VP8NA	—GW4KGR	4N9V	—YU4CN
VP9BO	—N1AFC	5B4KP	—SV0DY
VR6KY	—KC5GL	5H3YL	—SM6BDW
VS6IM	—K1MM	5T5CJ	—W4BAA
VS6KH	—G4ISK	5V7FA	—F6FGW
W1BIH/PJ2	—W1BIH	5V7WD	—WB9LFM
W3TB/TF	—K1LJJ	5X5FS	—EI9G
W6YB/V9	—KB7VD	5Z4CL	—W6BCB
W6YB/3D6	—KB7VD	5Z4DJ	—G4NJP
W9DCN/C6A	—W9DCN	6Y5BW	—KA3GSN
XT2BM	—WD4RHL	7P8CI	—KA2CDE
YB0ACL	—WA4RRB	8P6J	—WA6OTU
YC1GJ	—K2BGX	8Q7AH	—HB9TL
YK1AA	—DJ9ZB	8Q7BG	—DK4BY
YU8DX	—YU8IA	8Q7BT	—G4JMM
ZD7CW	—N4CID	8Q7NY	—JH8NYK
ZD8DX	—W4MJZ	9K2QL	—Yasme
ZD8FX	—G3VBY	9M6YY	—K5YY
ZF2GI	—W4OWY	9M8PW	—G4DXC
ZF2GN	—N8AVK	9Q5JE	—DJ5TY
ZK1BM	—W6KNH		*(See Note 2)*
ZK2AU	—K6RU	9V1VP	—K5YY
ZL1AMO/C	—ZL1AMO	9X5SP	—DL8OA
ZL2BJE/C	—ZL2BMY	9X5WP	—WB6VKD
ZL2BKM/C	—ZL2HE	9Y4RD/ST0	—KA2DDJ

AP2SQ	—P.O. Box 4787, Karachi, PAKISTAN
C53EK	—P.O. Box 596, Banjul, GAMBIA
DX1HRP	—P.O. Box 3987, Manila, PHILIPPINES
EA6MR	—P.O. Box 85, Mahon, Balearic Islands, SPAIN
EA9JZ	—P.O. Box 330, Melilla, SPAIN
EA9KQ	—P.O. Box 21, Melilla, SPAIN
FY7CH	—P.O. Box 642, Cayenne, FRENCH GUIANA
HS1CZ	—P.O. Box 11241, Bangkok 10110, THAILAND
JT1AO	—P.O. Box 844, Ulan Bator, MONGOLIA
KA2PFV/SV9	—P.O. Box 301, Iraklion, Crete, GREECE
P29JM	—P.O. Box 9205, Rawa, PAPUA-NEW GUINEA
T2GSH	—Gordon, c/o Post Office, Tuvalu, CENTRAL PACIFIC OCEAN via FIJI
TJ1AF	—144 Valley View Drive, Winder, GA 30680
TR8DC	—P.O. Box 2125, Libreville, GABON
TZ6BMA	—P.O. Box 198, Bamako, MALI
TZ6FIC	—P.O. Box 198, Bamako, MALI
VP8WA	—P.O. Box 38, Stanley, FALKLAND ISLANDS
5Z4DP	—P.O. Box 99111, Mombasa, KENYA
7P8CM	—Private Mail Bag A140, Maseru, LESOTHO
9J2BH	—Brian Hall, Turnpan, P.O. Box 20457, Kitwe, ZAMBIA
9X5MB	—P.O. Box 367, Kigali, RWANDA

Notes:
1. Use P.O. Box 6, Newport 3015, Victoria, AUSTRALIA.
2. This is a correction. QSL manager should read DJ5TY, *not* DK5TY.

Contributors for this month include W6QUE, N2BPO, DJ9ZB, W0IJN, W2HBO, PY1CC, W9LNQ, K7RDH, K9JXW, KA7FEF, WB0ERO, K7DVK, K4KQ, K6YRA, KO1R, W6KG, W6QL, W6ITH, W5CPI, the Western Washington DX Club, Hamfesters Radio Club, Redwood Empire DX Association, Stark DX Association, Kansas DX Association, Kansas City DX Club, the *DX News Sheet, The Long Island DX Bulletin* and *The DX Bulletin.*

This past period seemed to offer very little in terms of DX. Perhaps it will have picked up by the next issue. Maybe calling "CQ DX" might bring out something. This reminds me of the deserving DXer who used to live next door to a church that had just purchased a brand new electronic organ replacing the old pipe organ. It seemed that Sunday morning, old true-blue decided to call "CQ DX, CQ DX" which promptly saturated the organ's electronic circuits and came out through the speakers. All of the congregation jumped up and ran out of the church. The DXer's XYL, wondering what was going on, asked one of the congregation what was wrong. The worshipper in turn replied that they heard this voice coming out of the speakers, "Seek you the exit, seek you the exit." Our DX friend should have gone to church. Very 73 and GN! de John, N6JM. □

Shown at his operating position is Bruce Balla, VE2QO. Some of the awards in view include CW, phone and RTTY DXCC. The RTTY DXCC award is number 12 in the world and number 1 in Canada. ***(VE2ZB photo)***

Get to know others through DXing

Joe Seckel, WB6NPC

"Reach out and touch someone!" is a message often heard these days as part of an advertisement encouraging people to make more long-distance phone calls to family members living far away. In a broader sense, that message also has significance for Amateur Radio operators.

Have we really given enough thought to the wonderful opportunity afforded us to "reach out" to contacts with amateurs in our local communities, domestically and around the world? What other medium of communication offers such instant opportunity for getting to know our fellow man anywhere and virtually at any time? How about amateurs with sophisticated stations who have advanced technical capabilities for communications — should they take more responsibility to "reach out" meaningfully? Or do they often settle down to trying to advance the cause of Amateur Radio by tinkering with techniques and equipment?

We can become more involved in DX contacts. I don't think it's enough to limit ourselves to confirming our DX QSOs with standard cards and messages. We should devote more time to writing letters, now and then, to amateurs abroad, telling them something about ourselves, our community and our country. Let them know about some of our common interests, needs, hobbies, cultural attractions, as well as our concerns for improving communications and understanding among peoples.

If only half of our amateurs were to correspond in this manner with at least one amateur abroad each month, a sizeable network of meaningful communications might help to draw mankind closer together.

—*River City ARCS, Sacramento, CA* □

Propagation

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

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

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

JULY 1983

UTC	AFRI	ASIA	OCEA	EURO	SOAM
0100	16.0	20.4	26.2	16.3	21.5
0200	14.0	20.7	25.9	15.6	21.5
0300	13.8	21.5	26.0	15.1	20.4
0400	17.4	21.6	26.1	15.2	18.9
0500	17.3	20.4	25.2	15.8	17.5
0600	15.5	18.9	23.0	14.9	15.8
0700	13.8	18.2	20.3	13.9	13.5
0800	12.1	18.0	17.6	12.9	11.8
0900	11.0	17.3	15.3	12.8	12.2
1000	10.8	16.0	13.8	12.4	15.0
1100	11.6	14.7	13.2	12.7	14.9
1200	12.9	14.0	13.1	13.7	15.2
1300	14.6	14.1	13.1	15.3	17.3
1400	16.3	15.2	13.3	17.2	19.8
1500	17.4	17.4	13.9	18.6	20.6
1600	17.7	17.8	14.0	19.0	20.2
1700	17.9	17.5	13.1	19.1	20.5
1800	18.3	17.5	12.0	19.4	22.2
1900	18.7	18.1	12.9	20.0	24.2
2000	18.9	19.8	16.2	20.2	25.0
2100	18.8	21.9	20.3	19.9	25.0
2200	19.0	22.1	23.7	18.9	23.6
2300	18.3	21.8	25.6	17.8	21.6
2400	17.4	21.0	26.3	17.0	21.0

Operation W1JTI/OY

Leon Tallman, W1JTI/OY1KH

The Faroe Islands — where are they? This was a question I have been asked many times. The Faroe Islands are located in the North Atlantic between Iceland and Norway, north of Scotland.

Positioned between 6° 15′ and 7° 41′ West and 61° 26′ and 62° 24′ North, comprised of 18 islands, the highest point is about 800 meters and rises straight from the sea. The land is of a volcanic basalt type, about 540 square miles, of which only 34 square miles are cultivated, and this is often only along the shoreline.

The islands rise rapidly from the sea, mostly straight up, making some of them inaccessible; many rise to heights of 500 meters or more. The major livelihood in the Faroes is fishing, or fish processing. Currency is freely exchanged and on a par with the Danish kronur.

The islands are a self-governing community within the Kingdom of Denmark, which is the radio amateur licensing authority. Population is about 40,000, the majority of whom live in the capital city of Tórshavn and the second largest city of Klaksvik on the Island of Borde, one of the more northern of the group.

The Faroes is said to be the "Land of Maybe." This comes about when you ask a Faroeman if the weather is going to get better. He will reply, "Oh yes, it will be better, for it cannot be worse — maybe." The islands are subject to an annual rainfall of about 240 inches, and the temperature runs from about 2°C in December to 11°C in July. The average annual temperature is about 7.5°C. The skies are mostly overcast, more so in the summer than winter, and there is a great deal of mist. Winter storms can be tremendous and last for days on end; it is common during these storms for squalls to blast water out of the streams onto the hillsides. The Faroes lie south of the Arctic Circle, so the midnight sun cannot be seen there, but about midsummer the sun is never below the horizon, and one can easily read at midnight without artificial light.

Trees are unknown, bushes rare, and apart from seaweed, the vegetation is comprised mostly of grasses. The immense cliffs of the Faroes are home for millions of sea birds, such as puffins and guillemots, which in the olden days were a food staple for the Faroese. The Faroes are said to have been settled first by Irish monks about 800 A.D.; the ruins of a cathedral remain at Kirkebø, near Tórshavn, and is one of the tourist attractions.

Throughout my years of travel with the U.S. government, there has always been a contest between the airlines and myself. They like to see if they can somehow destroy my baggage, and I try to defeat them; I have yet to win. The Ten-Tec Omni "C" was purchased and test-run for a few months prior to departure in the event any bugs developed. A Samsonite suitcase was purchased with a foam rubber mattress. Cut-outs were made, and the Ten-Tec was packed with foam below, on top and every which way. Standing back, I eyed my effort and figured at last I had got 'em (the airlines). Wrong again.

Departure from New York to Reykjavik, Iceland went off as per schedule, we payed an excess baggage charge of $48. Not so bad, I thought. We had an uneventful flight to Iceland.

View of Klaksvik, Faroe Islands on a typical day

Leon Tallman, W1JTI/OY

We spent a few days with friends in Reykjavik, talking over old times. The XYL and I were married there in 1945. The Ten-Tec was left packed, but an eyeball inspection showed everything to be OK. After a week, we trundled off to Icelandair's terminal and got nailed good for excess baggage — over $100. Icelandic from New York allows you two pieces, Icelandair only one and a strict 44 lbs.

The trip from Reykjavik to Vagø in the Faroes was on a Fokker Friendship two-prop job and was quite uneventful. We figured about an eight-hour trip in all. We arrived safe and sound, dodging the sheep (they have the right of way) all the way, who roam freely on the hillsides.

Martin Haasen, OY7ML (DXCC 305) was most helpful in getting the operation started. He arranged for the license and I obtained W1JTI/OY — good for three months. Martin had sent to Klaksvik a Hy-Gain vertical and a W3DZZ dipole; both were erected with the help of Dia OY1R — an old friend from years back, and probably Klaksvik's most active CW operator.

Now came the unpacking and firing up. Power supply adapted to 220 with no problems. Receiver turned on and very fine signals were coming through, so now to give the transmit a try — circuit breaker pops, loud hum, nil. Reluctantly, the case was removed from the Ten-Tec and lo and behold — the airlines had struck again, I found the foil in the PA stages lifted off the board and broke; this was repaired, but to no avail. An express airmail letter was shot off to Ten-Tec advising them of the problem, and in three weeks I had a new PA stage. One could certainly not complain about the service received from Ten-Tec; they recognized the problem and were most helpful.

The new PA stage was installed and adjusted in accordance with the manual. Now everything was FB, and the Ten-Tec C came through with flying colors. This is certainly a CW-man receiver, and I speak with 48 years of being an amateur. The SSB is also good, although in this feature I have seen better. Contacts — barefoot were made with Franz Josephland, Ulan Bator, Sri Lanka, Falkland Islands and South Africa; 100 countries were worked on CW, and over 2,000 contacts were made. This may not be much for a DX-pedition, but with social obligations and some of the finest salt water fishing in the world, I think I did well.

The QSL card was drawn by a Faroe artist of some repute, and I feel it is somewhat of a collector's item.

There were some operational problems, mostly stemming from the call — W1JTI/OY. For instance, on 20-meter phone and the policemen on 20 meters — "Will the W1 QSY, there is an OY on the frequency," and those who call CQ DX were quick to come back "W1 is not DX." Even some of the "Big Guns" were guilty of this; they just do not listen to the whole call.

The U.S. amateurs need to clean up their act, although for the most part they exercised good discipline. When the pile-up became so bad I could not make heads or tails out of the mess, I would QSY slightly and generally pick up a 449 or 339 signal struggling to get through, but it didn't take long for the "blur" to show up again when they caught on to what I was doing. Often I would just sit back and wait until the frequency cooled off some, but there was always the stick-to-it ham that just wouldn't give up. Generally he was of a very low signal strength, and he did make the contact. I tried to QSO as much as possible, but when the pressure came on I tried to make it as rapid as possible. I do not go along with list-type operations.

My thanks go to Martin Haasen, OY7ML; Dia Rasmusson, OY1R and to all the other Faroe radio amateurs who helped and encouraged me, with deep gratitude to Ten-Tec for their very fine response to my problems. □

2M alive and well on Inside Passage

Lenore Jensen, W6NAZ

Many an amateur cruising the Alaskan Inside Passage has tucked a 2-meter hand-held in the suitcase "just in case."

True, the magnificent unspoiled beauty of one of the world's largest collections of islands is heavy competition for Amateur Radio. But the old pull of a possible QSO brings out the tiny rig when nearing the few inhabited areas.

The rewards are chats with exceptionally friendly local operators who seem pleased to hear a "foreigner," even though more than 150 cruise ship landings are probable over a summer.

Nearing Juneau, our plaintive inquiry on "34/94" was cordially answered by Rick Brucker, KL7IDT. We were still at least a half-hour away from that colorful capital which is spectacularly set against imposing mountains and adjacent to the breath-taking Mendenhall glacier.

He explained there are about 100 amateurs in the general area, including nearby Douglas Island across the Gastineau Channel. Their club of more than 40 members has as president Mike Murphy, KL7FT, an accountant with the State Internal Audit. Members run the usual gamut of professions: teachers, attorneys, doctors, technicians, etc.

Mary Claire Harris, KL7JBC is a school librarian. Her husband, Mar, KL7AW is a retired air traffic controller. They have the 146.16/76 repeater at their home, expecting to move it to the roof-top of a high building. 146.34/94 is 17 miles "up the channel" at an FAA site, and is mainly reserved as a calling and emergency frequency.

Don Bush, KL7JFT is the ARES Coordinator. He was very busy at the time of the sinking of the cruise ship

(*please turn to page 28*)

ICOM IC-25A/H

More Features and Power Per Square Inch!

NOW WITH EXTRA POWER!
IN THE NEW 25H MODEL

The smallest 2 meter FM mobile on the market is now even easier to read and use with a green LED readout and a compact touchtone® /scanning microphone and gives you the option of 25 or 45 watts.

New Green LED. Easier to read in bright sunlight, and not glaring at night, the IC-25A(H)'s new readout provides good visibility under all conditions.

5 Memories. Instant access to most used frequencies. VFO A information is transferred to the selected memory by pushing the write button.

Priority Channel. Any memory channel may be monitored for activity on a sample basis, every 5 seconds, without disruption of a QSO conducted on a VFO frequency.

New HM14 Microphone. Smaller and lighter . . . the HM14 microphone provides a 16 button touchtone® pad as well as up and down scan buttons adding easy frequency control of the radio and additional tones for repeater control.

NOR/REV Capability. Use of this button in the duplex mode allows one touch monitoring of the repeater input frequency. If simplex operation is possible you will know instantly.

Scanning. Pushing the S/S button initiates the scan circuitry. With the mode switch in a memory position the unit will scan all 5 memories plus the 2 VFO frequencies. With the mode switch in a VFO position, the unit will scan the entire band or the portion of the band defined by memories 1 and 2. Full band scan or program band scan is selected from the front panel and internally switched scanning choices of adjustable delay period after a carrier is received then resume scan, or resume on carrier drop, are standard.

ENLARGED HEATSINK FOR 45 WATTS

IC-25H
45 Watts

The New 45 Watt IC-25H. Only slightly longer than its companion IC-25A, the IC-25H packs a powerful 45 watt punch. This 45 watts of power eliminates the need for an external power amplifier in fringe areas and gives a savings of space and wiring.

The IC-25H has all of the standard features of the IC-25A that have made it the most popular 2 meter mobile ever, plus the new green LED readout, new HM14 microphone and extra power. These new features make the IC-25H the best 2 meter mobile value on the market.

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- Fully solid state for lower current drain
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- Handheld microphone standard (no extra cost)
- Optional mobile mount available

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2M alive

(*continued from page 25*)

Prinsendam when the passengers were rescued by tankers and taken to ports such as Valdez, Sitka, etc. A great amount of health and welfare traffic by Alaskan amateurs reassured frantic spouses and relatives of each other's safety after the harrowing experience.

Although the repeater coverage runs "north to Haines" and "southwest to Hoonah," the wide expanse of Alaska makes other bands more useful at such times.

The SeaSaw net meets weekdays at 9:00 p.m. local time on 3900 kHz, a frequency better suited to chasing signals around the steep mountains and across deep gorges.

Because of the topography, road lengths are limited in this isolated city, but "nearly everyone owns a boat or a plane." And, for the same reason, Amateur Radio (and CB too, of course) is extremely valuable. A trip by small boat to the spectacularly beautiful Glacier Bay, for example, finds ham communication of great comfort in this remote, lonely area. It's a long way from a pay phone!

Ron Ward, NL7B has a Cessna; Rod Combelick, KL7JJA flies a Tri-Pacer. In this rugged land with few flat places, many use float planes to visit friends.

Another friendly QSO was with John Swapp, K7CXJ/KL7, who explained what it is like to live far from over-crowded freeways where the air is crystal-clear and the forests abundant, the rivers thick with fish. Another active amateur is Bob Mell, KL7TV, who serves the club as vice president.

Rick, who works with Coast Guard communications, suggests to tourists arriving by ship to check in on 146.16/76 MHz about a half hour before expected arrival. "We've worked our repeater from a sailboat 25 miles south of Juneau," he explained. (Of course, all amateurs surely know not to use their rigs aboard without permission of the radio officer! On our four trips on the Passage, we found a great variety of reaction, from friendly to stern denial. But there's no problem ashore.)

Bob Kern, KL7NC, and a totem in Ketchikan greet visitors from the lower 48. ***(Photo by Bob Jensen, W6VGQ)***

Hours, even days, can go by on a ship without hearing a signal on 2 meters, but arrival in Ketchikan is a good bet for a QSO. Good luck brought us a call from Bob Kern, KL7NC, who happened to be on vacation from his work as a ship operator on the Tustumena. He kindly jumped in his car and met us at the dock. We enjoyed a fine tour of the interesting city.

Ketchikan is called "Alaska's first city," and dates back to 1883 when it started as a saltery. It was incorporated in 1900 and now boasts about 10,000 residents.

Although the area was experiencing a rare drought, a typical year brings as much as 200 inches of rain, Bob told us, so pack your raincoat! But the weather is surprisingly mild and flowers abound in summer.

The marvelous forests supply lumber mills. There is also a mill which produces pulp, used for rayon, cellophane and the like. The canneries, of course, are famous. The fish hatchery was fascinating.

Many fisherman seek out these waters for superior salmon. One such is Wally Nelskog, W7FDQ, who had just docked his boat at a marina after coming up from Seattle in it for his annual fishing vacation. (He owns broadcast stations in Seattle.) We admired the elaborate communications gear in his vessel.

Bob told us the repeater of Hank Wise, KL7GCN (16/76) can be heard as far south as Prince Rupert.

"But there's no real official ham club around here," he explained, "because we all see or talk to each other every day!"

Among the most active amateurs around Ketchikan are Les Kometz, KL7DTR, who is with the telephone company; Hank Prentiss, KL7IBG, retired from the military; Mary Salamanchuk, KL7JEF, a nurse; June Zenge, KL7HKA, a legal secretary and her OM Dick, KL7IHK, a Telco foreman; John Markle, KL7IFP, and John Ecker, KL7JCL, are of many skills.

Our calls in Wrangell were ill-timed as no one was monitoring, but on previous visits we've found pleasant answers. Sitka, too, is another popular stopping place for tour ships where one may hope to find a new friend.

So, it's well worth packing that handheld in the suitcase when heading for the Inside Passage, even though the QSOs may be few – for they're sure to be friendly and interesting! □

AWARDS

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

Seychelles Award

From the Certificate Hunters Club and the amateurs of the Seychelles comes a new award for working at least two of the four active amateurs now on the air from this location. S79ARB, S79WHW, S79MC, S79RD, S79CH and S79LA are among the current and recent operators, and all of their QSL cards can be applied as credit toward the award.

The award is issued for a single band and mode, and you can make application for the award as you complete the requirements of each band. To make it easier and more enjoyable, the CHC has a regular net each Saturday (write to sponsor for time and date) for working Seychelles amateurs; they also appear regularly on 10 meters, 28.650 MHz, 1600-1900 UTC; 15 meters, 21.370, 1600-1900 UTC; or on 20 meters at 14.297 MHz, 1600-1900 UTC. They will, upon special arrangement, make schedules for 40 and 80 as well. They may also be found on the IARS International DX Net, which operates daily on 14.297 MHz after 2300 UTC.

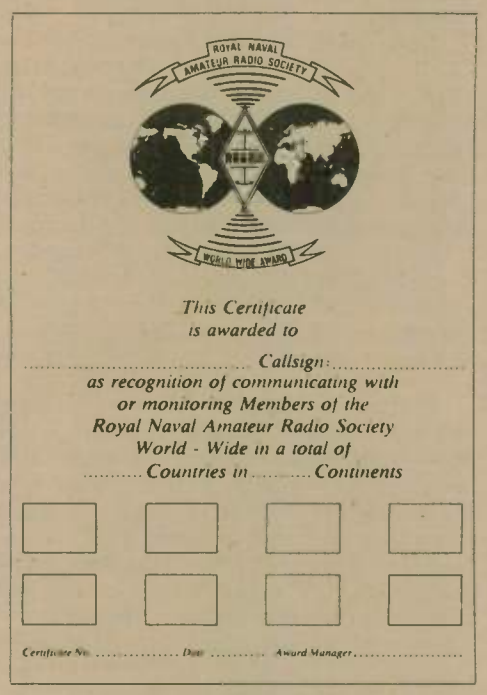
To apply for this award, send your log extract (GCR) along with $4 to the awards manager and CHC net host Jack Froehlich, WA2PPN, P.O. Box 178, Fleming Pike, Winslow, NJ 08095-0178.

Hainaults Reward

From the Goldfields Amateur Radio Group operating in Western Australia comes their first award, titled "Hainaults Reward." The award promotes contacts with members of the group and amateurs of the Goldfields region in Kalgoorlie.

The award measures 8½" x 11" and is a pictorial of the Hainualt Mine, which was the richest in the area, mining 1,150,000 ounces of gold during the period of 1920-1947. Now the mine stands unworked below, but still serves the area by acting as the tower for the club's repeater, VK6RAK.

To acquire the award, you are required to work at least three resident Goldfields amateurs, including one GARC member within the 250km radius of Kalgoorlie. Send your log extract (GCR) along with the award fee of $4 or 10 IRCs to: GARC Awards Manager, P.O. Box 463, Kalgoorlie, WESTERN AUSTRALIA 6430. The award is issued for all SSB, CW or FM, and no cross-mode/band contacts are allowed. If you are lucky enough to work VK6AGF (the club station), that is all you will need as it is an instant qualifier.



RNARS, World Wide Award

This award is sponsored by the Royal Naval Amateur Radio Society of England to encourage amateurs and SWLs to work/monitor members of RNARS.

The basic award is available for confirmed contact with RNARS members in 10 different countries representing at least two continents. Level endorsement stickers are offered for 25, 50, 75 and 100 members contacted and three to six continents represented. Only contacts made after July 1960 are creditable. Contacts with maritime mobile members will count, providing the necessary location information and supporting data appears in your log extract toward continent credit. However, only land-based amateurs contacted will apply for country credit.

Send your log extract depicting call sign date, time, RNARS number (if available) and country/continent, along with the award fee of $2, to: Award Manager, Mark Mullins, 24 Rigby Close, Waddon, Croydon, ENGLAND CR04JU.

Noviomagum Certificate

Since March 1978, the local branch (Nijmegen) of the VERON — the Netherlands section of IARU — issues the Noviamagum Certificate.

The award is available to licensed amateurs and SWLs. There are no limitations in date, band or mode. Do not send QSL cards. A list showing full details of the contacts should be certified by two licensed amateurs or a club official.

The fee for the award is DF1 5,-, USD 5,- or 10 IRCs. Radio amateurs living in countries where it is not allowed to export foreign currencies, can obtain the award free of charges.

All QSL cards, valid for the award, will show the text: "This QSL card is valid for the Noviomagum Certificate." The address for applications is: Award Manager, P.O. Box 1538, 6501 BM, Nijmegen, THE NETHERLANDS.

Each confirmed contact counts per band for 1 point, multiplied with the appropriate multipliers as indicated below:

- contacts with the club station PA0NYM or P14NYM: x 3.
- HF-bands; contacts from outside Europe: x 2
- only for the Netherlands: contacts made by a station with a D-license: x 2
- contacts made on 432-MHz and above: x 2
- contacts made on 144-MHz and above:

distance QTH - Nijmegen (CL20e) 50-100 km: x 1.5

distance QTH - Nijmegen (CL20e) 100 - . . . km: x 3

Requirements: HF bands: a total of 10 points; 144 MHz and above: a total of 30 points.

Center of Population Award

Issued for confirmed contact with amateurs in the surrounding area of St. Louis, Missouri, on a point system. Stations within a 100 mile radius = 5 pts.; 200 mile radius = 4; 300 mile radius = 3; 400 miles radius = 2; and 500 mile radius = 1. A total of 50 points must be accumulated for your application.

Send your log extract, along with the award fee of $2, to: Dean Cowden, KK0V, 2317 Lee St., Poplar Bluff, MO 63901.

Gateway to the West

Here is another award sponsored by KK0V for contacts with cities lying along the Lewis and Clark Expedition trail. A total of 12 contacts is required, which must include the following cities: Omaha, Nebraska; Pierre, South Dakota, Bismarck, North Dakota; Helena, Montana; and Council Bluffs, Iowa. You must also have confirmed the following states: Idaho, Kansas and Washington, along with two contacts from Missouri.

Send your log extract, along with $2, to: Dean Cowden, KK0V, 2317 Lee St., Poplar Bluff, MO 63901.

Well, that's all for this month. Don't forget to send your club's awards to us so we can let everyone know of them. Best 73 and Good DX, Scott □

The Pine Tree Chapter (in Maine) of the Quarter Century Wireless Association has awarded its first Honorary Life Time Membership to Leo Meyerson, W0GFQ, for his outstanding contributions to QCWA as National Scholarship Chairman, as National Director, and for outstanding services to the Pine Tree Chapter. Pine Tree now has 76 members including 15 life members. Shown are Glenn Baxter, K1MAN (left), and Leo Meyerson, W0GFQ.

Ham couple wed

Submitted by Art Saboe, W9ZM

Cupid's powers proved superior to all other earthly forces on, of course, 14 February, causing a radiant Jo Ann Banks, N9CXJ, and a stunning Gary Turner, KC9LM, to tune their VFOs to the 20 over S9 signal of Judge Jim Boll, N9DAD. Judge Jim deemed their signals to be exactly zero beat and pronounced them to be OM and XYL.

The official monitoring stations were Ed K9QXY, and Sharon Toal, WB9RNF. These stations report that after making the necessary log entries, the bands were very quiet, Cupid's couple apparently QSYing to some private wavelength.
— FLARC Newsletter, Madison, WI □

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

Phase IIIB

3 June is the currently official launch date for the Phase IIIB AMSAT/OSCAR spacecraft. The elliptical orbit is expected to be something like 35,000 × 1500km, so that the apogee (highest altitude) will be over the Northern Hemisphere. This is going to allow some 16 hours of access time for those in the northern regions of the Earth.

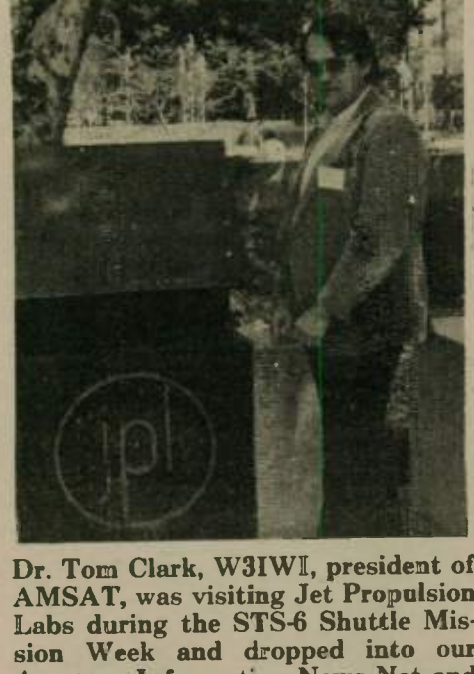
STS-6

During the week-long STS-6 mission, the Shuttle Audio and the communications with Mission Control at Houston were monitored by amateurs around the world as the result of a special waiver by the FCC. This permitted W6VIO, the JPL Amateur Radio Club Station, and W5RRR, the Houston (Johnson Spacecraft Center) Amateur Radio Club Station, to retransmit the downlink audio and Mission Control communications to the astronauts aboard the Challenger during the shuttle's orbits about the Earth. There were some 30 repeater links in the Shuttle Audio Network. They covered from the Mexican to Canadian borders.

Some highlights of this event occurred during the Tuesday night Amateur News Net and Wednesday night OSCAR News Net on W6VIO/R, when Dr. Tom Clark, W3IWI, president of AMSAT — who was attending a conference at JPL — fielded hundreds of questions from amateurs listening to the Shuttle Audio. Tom put in long hours during this activity, providing the amateurs in the Southwest with information and comments on space communications generally, and Amateur Space Communications and activities of AMSAT — both current and in the future.

Some of the items Tom discussed included the packet radio plans for the expected 1986 JAMSAT Amateur Satellite, and the Phase IIIC launch, to follow the Phase IIIB when a launch opportunity can be found.

Tom also discussed the "Mail Box," which amateurs with computer modems can access to send messages to others or to receive messages intended for them. The "mailman" is Bob Diersing, N5AHD. He can be reached via 300 baud Bell 103 Modem at 512-852-8194. Details in *Orbit* #12



Dr. Tom Clark, W3IWI, president of AMSAT, was visiting Jet Propulsion Labs during the STS-6 Shuttle Mission Week and dropped into our Amateur Information News Net and the Satellite Information News Net via W6VIO/R. He provided many answers to questions about space activities generally, and the AMSAT/OSCAR Space Program in particular. ***(K6PGX photo)***

N2CF — the new AMSAT GM/ED

After an extended talent search, AMSAT Board of Directors has selected William L. Lazzaro, N2CF, of New York, as AMSAT's new General Manager and Executive Director. N2CF was selected from a group of 10 candidates. He was to assume his duties 25 April 1983.

Bill is a native of New York, in his early 30's, is married and has three harmonics (boys). He holds an amateur Extra Class ticket and has been licensed since 1964. He holds a B.S. in Science Education, cum laude. He was president of his college honor society. In addition, he has an M.S. in Science Education and has 30 credits toward a doctorate.

Over a period of four years, Bill won three federal grants to improve science education in the classroom. Two of the grants related to space awareness themes. In 1977, a grant provided for an OSCAR receiving station. In 1978, a second grant made it possible to construct a weatherfax station in his school. These were important in providing students with a deeper awareness of the concepts involved.

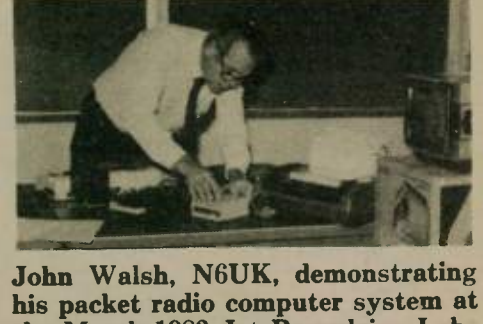
In an interview with *Amateur Satellite Report* Editor Vern Riportella, WA2LQQ, Bill said, "I see as one of my primary functions the task of winning grants for AMSAT to finance our ongoing programs in space awareness and amateur satellite work. There are literally thousands of foundations across the country with money to donate for good causes. . . . Moreover, there are corporations with millions of dollars earmarked for organizations such as AMSAT."

Go get em, Bill!

Further in Bill's interview with Vern, he said about PACSAT: "PACSAT will open many doors in terms of Ham Radio's relation to rapidly growing computer technology. I'd like to see amateurs move into this area and to really take advantage of the possibilities that exist. The conjunction of these two technologies will determine in large measure the course of Amateur Radio henceforth, I'm convinced. It's therefore very prudent that AMSAT should be in the forefront."

N6UK talks on packet radio

Along the lines of the comments of Bill Lazzaro we can report the talk given by John Walsh, N6UK, at the JPL Amateur Radio Club meeting and at a San Gabriel Valley Amateur Radio Club meeting recently. At the meeting, John demonstrated his Packet Radio Mailbox system.



John Walsh, N6UK, demonstrating his packet radio computer system at the March 1983 Jet Propulsion Labs Amateur Radio Club meeting. ***(K6PGX photo)***

Japanese Amateur Satellite

JAMSAT, the Japanese AMSAT affiliate, will soon be designing and building an indigenous OSCAR according to JAMSAT/AMSAT Liaison Officer Harry Yoneda, JA1ANG. Harry also serves as AMSAT Director.

The project will be a joint undertaking of JARL and NASDA. (JARL is the Japan Amateur Radio League; NASDA is the National Space Development Agency [of Japan], similar to NASA, ESA.) JAMSAT will provide key technical support in areas of design, development, test and integration.

Dubbed JAS-1 for Japanese Amateur Satellite #1, the project was recently approved by Japanese authorities after several years of behind-the-scenes negotiations. The sensitive nature of the negotiations precluded earlier announcements, according to JAMSAT officials. A 1986 launch is anticipated.

Mikiyasu (Miki) Nakayama, JR1SWB will head the JAMSAT team as task leader for the project. It is not clear at this juncture what the final name of the satellite will become. This will be Japan's first satellite, although JAMSAT has been a very active contributor to prior projects. Most prominent is AMSAT OSCAR 8 when JAMSAT built the Mode J (for JAMSAT) transponder. Several of the key components of both Phase IIIA and B also were JAMSAT contributions.

JAS-1 will be placed in a 1500km circular orbit inclined 50 degrees. It will be very similar to AO-7 in its orbit. According to JR1SWB, the payload will include both a Mode J-type linear transponder and a PACSAT-like digital transponder. The launch vehicle will also be indigenous to Japan. The H-1 launcher has recently enjoyed good success in placing communications and weather satellites in service for the Japanese growing requirements.

JR1SWB was recently in the United States attending the West Coast Computer Faire in San Francisco. Later he traveled east, visiting key AMSAT officials, including Philip Karn Jr., KA9Q and John DuBois, W1HDX. Mike represented JAMSAT at the Paris conclave of amateur satellite builders last October and is a recognized leader in the community. *—from ASR, 52/53, 3/28/83*

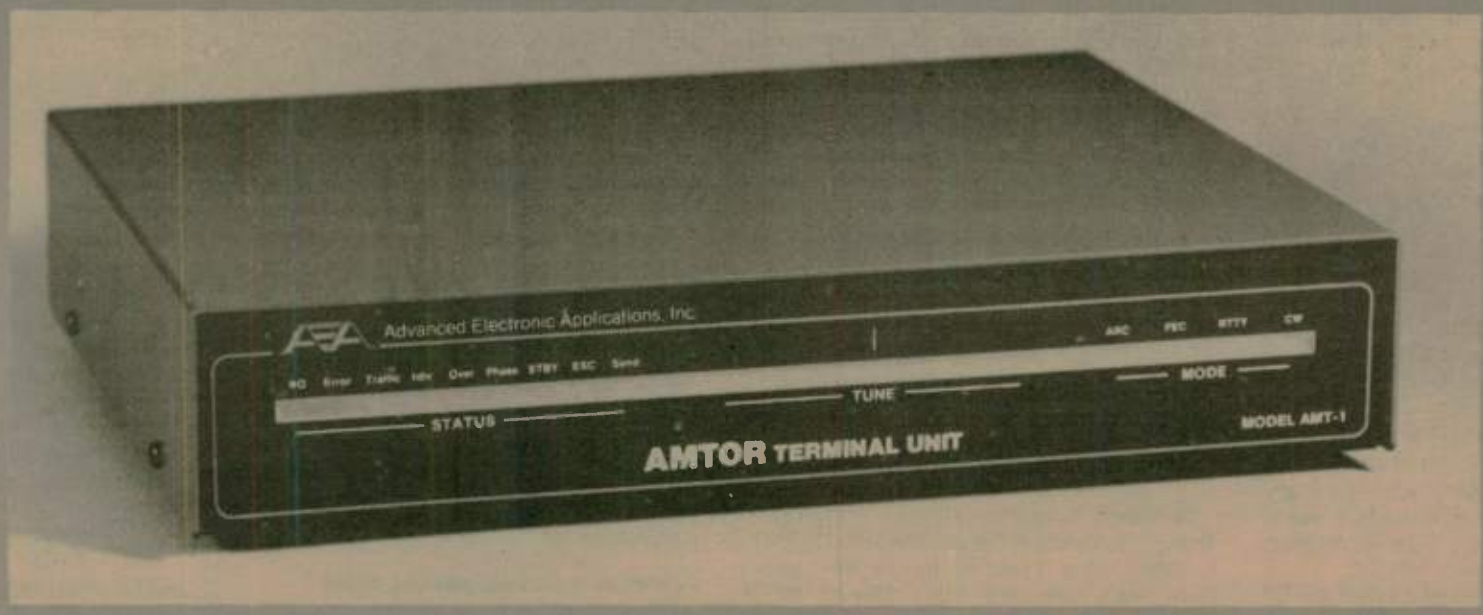
W9KDR

ARRL's OSCAR coordinator Bernie Glassmeyer reports that he now has the necessary modem and software to hook into the AMSAT Bulletin Board using a TRS-80 Model I. Through AMSAT cooperation, ARRL will also be able to access the Telemail System.

(*please turn to page 44*)

STOP PRESS
AMTOR NOW OFFICIALLY
APPROVED IN U.S.A.

AMT-1
The Definitive
AMTOR Terminal Unit



$499.95 Introductory Price

AMTOR is the system of error correcting RTTY which has been rapidly overtaking conventional RTTY in Europe, just as its marine equivalent, SITOR, has been taking over in ship to shore communications.

It was originated by Peter Martinez, G3PLX (see June 1981 QST, p. 25). He first interpreted the international marine CCIR 476-1 specification for amateur use. Virtually all of the 400+ stations presently on AMTOR world wide are using software/hardware designs originated by Peter. The AMT-1 is a proven product which represents his latest and most highly refined design. It represents the culmination of over three years of development and on the air testing, and sets the standard against which all future AMTOR implementations will be judged.

Not only does it incorporate the latest AMTOR specification, but it gives superlative performance on normal RTTY, ASCII and CW (transmit only). As well as some fairly incredible real time microprocessor software, the AMT-1 boasts a four pole active receive filter, a discriminator type demodulator, a crystal controlled transmit tone generator, and a 16 LED frequency analyzer type tuning indicator, which is very easy to use.

Driven from a 12 volt supply, the AMT-1 connects to the speaker, microphone and PTT lines of an HF transceiver and to the RS-232 serial interface of a personal computer or ASCII terminal. All mode control is via ESCAPE and CONTROL codes from the keyboard (or computer program).

It used to be that C.W. was the ultimate mode for "getting through" when QRM and fading were at their worst. That's no longer true — AMTOR will get through with perfect error-free copy when all other conventional transmission modes become useless.

So join the swing to AMTOR now and the large number of satisfied AMT-1 users already on the air outside of the U.S.A. Choose the definitive product. You'll wonder why anyone uses normal RTTY! Send for details. Better yet, see your favorite AEA dealer.

TEXAS TOWERS • A Division of Texas RF Distributors, Inc.
1108 Summit Ave., Ste. 4 • Plano, TX 75074
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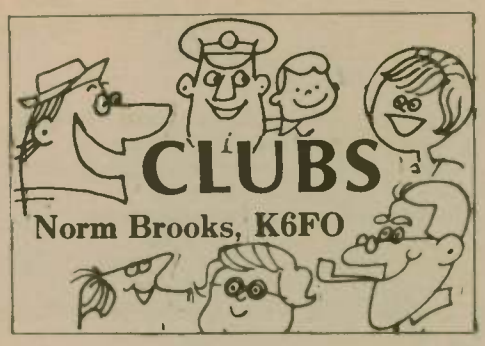


We have a nice letter from a group of amateur spark operators who still have some "spark" left:

The Ozone Club

Back in the fall of 1980, when we decided to form an exclusive organization of amateur former spark operators, **Worldradio** was kind enough to publicize the event and print an application blank for the newborn Ozone Club.

Inasmuch as membership required owning a licensed amateur spark station (legal up to 1927) and not only still be living, but also still be amateur licensed, we had expectations of maybe 100 members, at most. We are therefore very pleased to have a membership of 243, as of 12 Feburary 1983, and applications are still coming in.

Amont the members, we are proud to list such very distinguished outstanding amateurs as Senator Barry Goldwater, K7UGA; Frank Gunther, W2ALS, Clarence Seid, W2KW — all of whom were former presidents of the Quarter Century Wireless Association (QCWA); Hal Sears, W5NC, former QCWA vice president; Judge James H. Brown, W6VH, president of the Old-Old-Timers Club (OOTC); Gus Gironda, W2JE, secretary-treasurer of OOTC; Gar Anderson, K0GA, ARRL vice president; our oldest member, Professor Eric Shalkhauser, W9CI, who still climbs his tower at 89; the three Mumford brothers, Bill W2CU, Royal W3CU and Hal W6CU.

We are deeply sorry that our only YL member — Eunice Thompson, W1MPP — has become a Silent Key.

The ingenuity required to get on the air in the early days is indicated by the original equipment listed by the members on their applications. Practically all started with Ford spark coils, homemade condensers, catwhisker galena detectors, Quaker oatmeal boxes and various and sundry nondescript items that could facilitate entry into the mysterious world of wireless communications.

It sure was exciting and rewarding — a sense of satisfaction that cannot be experienced today with "bought" equipment, and with much of the radio world already explored.

Thanks again for your assistance and congratulations on your excellent publication.

Sincere 73,
RALPH HASSLINGER, W2CVF
Ozone Club, Founding Recorder

The Ozone Net is on the air each Monday, 21,435 kHz at 2100Z during Standard and 2000Z during DST.

Fox River Radio League

From *Arc Over*, the newsletter of the Fox River Radio League in Aurora, Illinois:

Some 54 years ago, the FRRL was first founded by a handful of technically knowledgeable and inventive amateurs. Now we are 200 strong! Through the years, our basic mission has not changed a bit. The problems facing the club have changed drastically though. Consider:

- In five years, we have grown from a small hamfest in a city park to a huge offering which draws 3,000 people from several states, costs us better than $4,000 to produce, and has accorded the club enough recognition that we were offered the 3-State Central District Convention.
- We have added about 50 *new members* in the past year alone.
- Our *Arc Over* is recognized as a first-class newsletter.
- Budget balance in the treasury is $8,000.
- We were the first (and probably only) club to gain access to Sears Tower for a special event station. We made over 3,000 contacts.

There are more items we're all aware of, and it makes it a tad rough to remember we are just a hobby-oriented club. The fact is, however, that our club *is* a small business, faced with the problems of managing its assets, pleasing over 200 club members, planning large hamfests, publishing, public relations, etc.

This demands strong leaders, and the largest responsibility lies in the position of president. We must have a qualified president, and barring the "instant qualifier," which we may or may not have, on-the-job training is best. Therefore, a mandatory term as "president-to-be" will provide the best solution to a problem which, right now, doesn't exist but very well could.

The days of someone taking the position, just because no one else will, should be behind us. — de Frank Christensen, WA9TRG

●

We learn from *The Hilltopper*, that the Tompkins County Amateur Radio Club of Lansing, New York, no longer has problems with members being absent from meetings for various excuses. They announce:

No Excuse Week

Frank Boyd, WA5QVN
ARNS via LERC ARC Bulletin

We are serving notice that this coming meeting will be "No Excuse Week." There is absolutely no excuse for you not to be there since we will have:

1) Cots in the back for those who say they need their sleep.
2) Murine for those with tired eyes from watching TV too long.
3) Steel helmets for those who say, "The roof will fall in."
4) Blankets for those who think the room is too cold, and fans for those who think the room is too hot.
5) Hearing aids for those who can't hear the president, and cotton for those who can.
6) A portable TV for those who can't miss their programs.
7) Some relatives for those who go visiting on meeting nights.
8) A good selection of flowers for those who enjoy the outdoors.
9) "Stamp Out Dues" buttons for those who are behind in theirs.
10) Free TV dinners for those who can't cook dinner and come to the meetings, too.

If these items do not deal with your excuse, please phone us, and we'll think of something just for you.

Golden Anniversary Club

Congratulations to the Great Bay Radio Association of Dover, New Hampshire. On 8 May 1983, they had been affiliated with ARRL for 50 years. They were presented a "Golden Anniversary Club" plaque by John Sullivan, W1HHR, New England Division Director of ARRL at "Springfest '83."

VISIT YOUR LOCAL RADIO CLUB.

ALASKA

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

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

ARIZONA

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

CALIFORNIA

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

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

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

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

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

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

Livermore Amateur Radio Klub
2441 Heatherlark Cr., Pleasanton, CA 94566
Meets: Valley Memorial Hospital
Multi-purpose room, Livermore, CA
2nd Saturday/monthly - 9:30 a.m.

MT. Wilson Repeater Association
P.O. Box 977
Yorba Linda, CA 92686
WA6KOS Repeater — input 146.40 output 147.435
Amateur Radio QST Net — Monday at 7:00 p.m.

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

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

San Fernando Valley ARC (W6SD)
Red Cross Building
14717 Sherman Way
Van Nuys, CA 91704
3rd Friday/monthly - 7:30 p.m.

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

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

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

Sonoma County Radio Amateurs, Inc.
Box 116, Santa Rosa, CA 95402
Hank Davis, W6DTV (707) 823-7885
County Office of Emergency Service
1st Wednesday/monthly - 7:30 p.m. rpter 146.13/73

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

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

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

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

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

CONNECTICUT

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

FLORIDA

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

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.

HAWAII

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

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

ILLINOIS

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.

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.

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

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

INDIANA

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

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

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

IOWA

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

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

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

MICHIGAN

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

MISSOURI

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

NEW HAMPSHIRE

Great Bay Amateur Radio Assoc.
Dover District Court
St. Thomas St.
Dover, NH 03820
2nd Sunday/monthly - 7:00 p.m.

NEW JERSEY

Gloucester County ARC, W2MMD
PO Box 370, Pitman, NJ 08071
VFW Post #2117, Woodbury, NJ
1st Wednesday/monthly - 8:00 p.m.

NEW YORK

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

Long Island Mobile Amateur Radio Club (LIMARC)
146.25/85, 147.975/375, 223.22/.224 :82, 444.125/449.125
Membership: Jerry Kamen, K2QXH, 44 Robin Lane, Levittown, 11756 Net every Mon. 8:30 p.m. 146.25/85
Meets 1st Tues/8 p.m., H.B. Thompson, JHS, Syosset

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

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

NORTH CAROLINA

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

OHIO

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

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

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

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

OREGON

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

TENNESSEE

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

VIRGINIA

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

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

WEST VIRGINIA

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

SUBSCRIBE TO WORLDRADIO; see page 9

The Puget Sound area

Northwestern Washington state amateurs coordinate their public service activity through Community Amateur Radio Public Service (CARPS). Thanks to Bill Bingham, WA7VEH, for the summary of their activities.

4-5 June	Fort Lewis	Washington State Finals Special Olympics
4-5 June	Darrington	Sauk-Suiattle River Canoe Races
12-13 June	Marysville	Marysville Strawberry Festival & Parade
4 July	Renton	4th of July Display
9-10 July	Kirkland	Annual Moss Bay Regatta & Races
10 July	Kent	Kent Cornucopia Days Parade
22-24 July	Bellevue	Peter Puget Days
23 July	Redmond	Redmond Bike Races & Parade
30 July-5 August	King County	Seafair District Parades & Torchlight Parade
13-14 August	Puget Sound	Boeing Employees Salmon Derby
20 August	North Bend	Equestrian Event
27-28 August	Puget Sound	Seafair Salmon Derby
24 September	Enumclaw	Equestrian Event
5 November	Seattle	Seattle Police Marathon
19-20 November	North Bend	Tour de Forest SCCA PRO-RALLY
10 December	Lake Washington	Boat Ride for the Handicapped
10-23 December	Seattle	Santa Talks Program for Hospitalized Children

●●●

The Club House

Does your club have a Club House? The Baltimore Amateur Radio club has started a building fund for that purpose. From their newsletter *The Modulator:*

Sharing one of the highlights of the meeting, Fred Lee and Roland Slatkoff jointly agreed to head the Building Committee. *The idea of the BARC having its own building is not a new idea but this meeting saw both Fred and Rol say they had the idea under consideration for many years.* At this time, Fred arose and gave the club the first check (the amount was not disclosed); Rol said his check was forthcoming.

It may be noted that the BARC is a non-profit organization and that all contributions to the Building Fund tax-deductible. Treasurer Jeff reported that a separate account will be set up for the Building Fund.

●

The Anne Arundel Radio Club of Glen Burnie, Maryland, *does* have a clubhouse, and brings this fact to non-members' attention in this notice in their newsletter *The Ham Arundel News:*

Remember the recruiting posters, "Uncle Sam wants you!"? Well, the Anne Arundel Radio Club *wants* and *needs* you. As our immediate past president, Dick Jessup, N3FN, said, the AARC has much to offer you. To quote Dick:

"How many Amateur Radio clubs have their own club house not shared with other organizations?

How many other clubs have space and facilities to erect towers and antennas of any size and number adjacent to their meeting place?

How many clubs have an excess of 160 members except for repeater groups?

How many clubs do you know of that have so many members with such diverse talents and interests?

How many other clubs do you know of that meet twice monthly in person and every week by radio with such continuing fraternalism?

How many other clubs do you know of that have a first-class state-of-the-art repeater, controlled by the most advanced computerized repeater controller available; a radio shack equipped with one of the most advanced transceivers; a soon-to-be available laboratory for member experiments and equipment buildings; galley and refreshments facilities; and restroom facilities?

How many other clubs do you know of that includes a top-notch newsletter mailed directly to members as a part of their $10 annual dues?

I could go on, of course, mentioning other things we have of benefit to our membership such as phone patch, training courses, special monthly programs, auctions, open house, etc. If you go down the list of Amateur Radio clubs, listed in *Auto-Call*, you will not find one with the assets and potential of the AARC."

The AARC offers something for every ham. Even if you can't make the one meeting to become a full member (we realize that business, family and other activities keep many very busy), the club still offers a "supporting" membership for the same low annual dues of $10! *And, there are no joining fees.* The very least you'll get is to be kept informed of what's happening in Amateur Radio in the United States and at about half the annual cost of just one of the subscriptions of one of the agencies' newsletters that collects and distributes that news. So won't you join now? Send a QSL or postcard to the club, P.O. Box 604, Glen Burnie, MD 21061, and request an application for membership. It will be returned to you by return mail. □

BOMB Squad co-op

Gary Andary, N6UU

The "Best of Mount Baldy" repeater group (147.21 MHz), near Los Angeles, devoted their winter pre-Field Day exercise to the YL-OM Contest in February.

With the aim of encouraging YL participation in the actual Field Day to come, the gang set up a typical multiple transmitter operation at a campground in Temecula. There were four towers, emergency power and even a portable repeater. The group brought a microcomputer to test "in the field" as a log-dupe sheet aid.

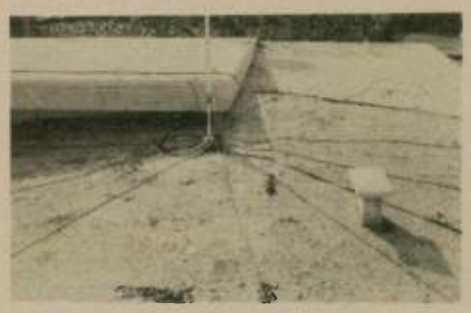
After a good work-out on the bands, the participants enjoyed a potluck dinner, family-style.

The licensees included Barbara Shaffer, K6AYR: Elizabeth Wallin, KD6CY; Ray Davis, NB6D; Paul Schou, KE6ET; William Weaver, N6GDY; Neil Banks, WB6GGL; Steve McKeown, N6GUX; John Shaffer, W6GVR; Bill Phinizy Jr., KB6HK; Laurie McKeown, N6HKZ; Phil Vinokur, WA6HVI; Fred DeKeyser, N6HVN; Timmerle DeKeyser, N6HVM; Rolph Van Jindelt, WB6JKW; Keith Bushey, KA6KJS; Charles Luck Jr., W6KZT; Pat Banks, WB6NAG; Warren Goyer, WB6NBP; Gary Schultz, KA6OSU; John Walsh, N6UK; Gary Andary, N6UU; Dick Emerson, KE6XU; and Steven Ause, WA6ZQC.

The "BOMB Squad" has established the tradition of having an outdoor, emergency-powered operation each winter to ensure optimum efficiency come the real Field Day. No doubt many YLs will again enjoy calling "CQ Field Day" in June. □

This month, let's talk more about Amateur Radio high frequency installations. The same techniques that we will mention for maritime mobile installations also apply to motor homes, condominiums, cars, and your trusty home QTH. I am sure you have heard it a jillion times, but your antenna system is what makes or breaks a good signal on the high frequency bands.

I hope you caught the word "antenna *system*." Whenever we talk about maritime mobile antenna systems, always think of this in two parts — the radiator and the mirror image counterpoise. If either one is missing, your antenna system simply won't work.



Verticals need ground radials.

Good signal reports are given to the vertical antenna system in the clear. A vertical antenna may be characterized as mobile whips, mobile trap verticals, base station trap verticals, or any other type of antenna that basically points straight up. Essential for the operation of this antenna is a good ground counterpoise. This may consist of a seawater ground, copper foil below the base of the antenna, ground radials, and other schemes to keep the antenna system balanced.

Examples of "bad-signal" antenna "systems" would be mobile whips on a sail or powerboat without any formidable groundplane directly beneath the whip. Too many times we have seen deluxe mobile antennas hung off the stern with minimum or no ground foil or screen directly beneath the antenna. No, mounting your antenna on your stainless steel pulpit astern will usually not create enough ground surface to adequately radiate the signal. No, mounting a mobile whip on the side of your cabin and trying to use the coax cable braid as your only ground source also leads to terrible sounding signals. Mobile whip antennas without a groundplane directly beneath them cannot be "forced tuned" with an antenna tuner either. Although the SWR may look low, your ultimate range will be no further than the next marina over.

Good grounding techniques beneath the mobile whip would include copper screen, 3-inch wide copper foil, aluminum foil, and any other groundplane that may be formed, below deck, directly beneath the base of the mobile whip.

If there is no area to place wire mesh beneath the mobile whip on your stern transom, try running wide copper foil strips — each a quarter-wavelength long, for the frequency you may plan to operate on — from the base in the mobile whip forward and below the waterline. Also run, directly beneath the mobile whip, a copper foil strap to your central ground point.

For vehicular installations, mobile whips usually work great. The metal on your car is massive enough to balance out the system, and your whip will work well. The whip must be in the clear. Mounting a mobile whip on the side of a camper with only the tip extending above the camper will generally lead to poor signals. Most of the signal is being absorbed by the camper shell.

Same thing with mobile whips among the rigging of a sailboat. The energy simply transfers from the whip to the standing rigging, and then goes to ground. The result is a poorly radiated signal.

For home installations, trapped vertical antennas all require a form of counterpoise. This usually requires running a minimum of four quarter-wave radials out from the base of the home-mounted trap vertical. You can enhance the radiation of your home antenna by placing foil beneath the base of the antenna. Copper screen works wonders as a skirt around the base of the antenna.

There are "groundless" vertical antennas for home use. These antennas work well with their adjustable matching network at the base. I have never seen one aboard a boat, but it probably would work if you kept the base unit absolutely dry.

I have also not seen any working "tri-band" mobile fiberglass whip antennas for marine installation. Rumor has it that there are at least three different fiberglass tri-band whips on the market,

Coax-Seal™ works well.

but both the "Autotenna" and Berthel Industries 5-band whips are still undergoing my reviews.

I was deluged with comments regarding coaxial cable and how to feed maritime mobile antennas. The most often-asked question was where to pick up "Coax Seal." It's available by mail order from Amateur Radio supply houses, at your local Amateur Radio dealer, or available from the company that produces it, Universal Electronics, Inc., 1280 Aida Dr., Reynoldsburg, OH 43068. This is about the best stuff around to seal out seawater from coaxial cable connectors aboard your boat.

Scotch-Kote is available from electrical supply stores throughout the country. Try your local wholesale electrical distributor for a can of this goo that seals out everything! Just don't drip any on your new teak decks.

Tuners

The new ICOM MT-100 antenna tuner is a gem. I used it for five weeks on a yacht race, and it works super. It will tune just about any kind of antenna system that you may dream up. Remember, I said "system," so the tuner absolutely has to have a good copper foil ground to your central ground source aboard your boat. The new ICOM tuner was used with backstays, slopers, fixed frequency dipoles and a random wire run up a halyard. In every case, it was possible to tune out any SWR and provide a perfect match for our solid-state transceiver.

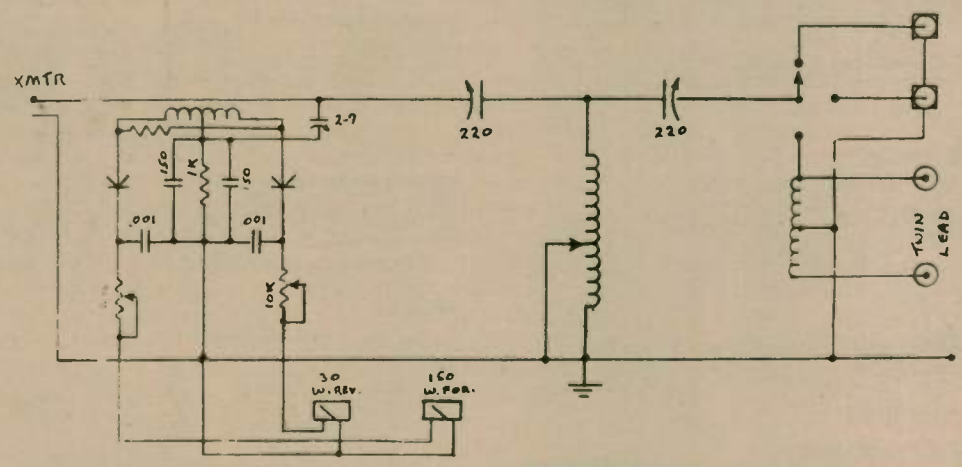
It's best to first tune the inductance knob to an unknown load for maximum noise on the receiver. Then look for a clear frequency, switch to AM for low-power output, and then tweak the outside knobs for maximum forward power and minimum reflected. One needs to jockey the outside capacitor settings for the right combination. Once you have found the right setting, write it down for future reference. This allows you to rapidly change bands and tuner settings without having to go through the complete process of tuning up cold.

Tuner settings seldom change if your antenna system stays fairly constant. The tuner is also a positive way to double-check power output in watts. Incidentally, don't get excited if you don't see the power output meter swinging all the way to 100 watts as you modulate on sideband. Most transceivers are certainly capable of 100 watts output on whistles, but average power output generally covers around 40 to 60 watts. This lower-than-100-watts output is due to a slow response time on mechanical meter movements, and you may be assured that your peak power is right around the 100 watt level. Cutting in your speech processor will also limit the peak that your meter will read during normal modulation. Just as long as you see around 40 to 60 watts out while talking normally, you are in good shape.

Portable power packs

How many of you have a 2-meter hand-held that you take aboard the boat for weekends? Looking for more range? Using your marine VHF antenna generally works out well. However, sometimes you may wish to have additional power for those long-distance repeater contacts. Two companies produce hand-held "power packs" that not only amplify the power output of your hand-held, but also provide charging power for the batteries, increased audio output, plus a secure holder for your HT.

The VoCom Company offers several varieties of hand-held holders that also amplify your power output and speaker output. They also have models that simply charge the battery and give you a remote mike with amplified speaker output with no change in RF power output. VoCom Corporation, 65 East Palatine Rd., Prospect Heights, IL 60070, also has — for **Worldradio** readers — a complete catalog of their hand-held power adapter accessories, plus a comprehensive question-and-answer sheet that talks all about their many uses in a marine or mobile environment. We have tried out two of the VoCom products for our hand-held and are quite impressed. They look like they can take the harsh marine environment,



ICOM MT-100 tuner

Kenwood TS-430S

Kenwood 430 with ICOM tuner on lower right

VoCom hand-held booster amp/charger

and it adds some extra suds to your hand-held when you need a little bit more audio or RF power output aboard your boat. Write Art at VoCom for more details.

Another company produces HT slip-and-charger/amplifier/holder accessories. Located in Las Vegas, Nevada, at 3351 South Highland, Suite 202, Trilectric Corporation sells mainly to business radio users with their deluxe hand-held communications products. They are now looking toward the marine market with their products, and you may wish to also write them for more details. Write specifically to Manny, and ask for a catalog on the HT power amplifier products.

Seven Seas Cruising Association

For those of you planning on some worldwide cruising with your ham radio sets, you may wish to join an elite organization called Seven Seas Cruising Association, Inc., P.O. Box 2190, Covington, LA 70434. Each month they publish a 75-page booklet, written by their readers who cruise throughout the world. Many of the readers are also amateur operators and offer some valuable frequency information for distant ports. It's a fun reading booklet put out each month, with plenty of tips on where to anchor, what frequencies to transmit on, and reciprocal licenses necessary for different cruising areas. Subscription rates are $22 a year, first class mail. You may also wish to enclose a few extra dollars for their comprehensive listing of cruising mariners with Amateur Radio licenses. Be sure and tell them ol' Gordo from **Worldradio** is recommending them.

Mariner's General Class code course

Summer super range

Finally, get ready for some long-distance 2-meter super range this summer. Warm weather with stationary high pressure systems may cause long tropospheric ducts to form along the coastlines. One of the most popular ducts is between Los Angeles and Hawaii. That's right, how about that for a long-distance QSO on 2 meters! Other common long-distance ducts extend between the Northeast and Florida, Florida to Texas, Seattle to Vancouver, and Southern California into Mexico. During periods of stationary high pressure systems on hot, smoggy days, look for these band openings over several hundred — even thousand — miles.

June and July is also sporadic E season for 2 meters. If you should hear distant Coast Guard stations on marine channel 16, look for some DX repeaters that might be skipping in from 1,000 miles away! It doesn't take much power to work long distance tropo and E skip on 2 meters, so you may wish to give it a try.

For those of you with just a Tech license, don't forget our stereo code course that will take you from 5 wpm to 13 wpm. These are available directly from me at the Callbook address (2414 College Dr., Costa Mesa, CA 92626); $39 plus $2 for postage includes a free carrying case for the cassettes, too.

Good cruising, and I'll be looking for you on the airwaves. □

East Coast to Italy

Al Bergeron, W1ZJK, of West Newbury, Massachusetts, worked Paolo Gori, I5ZJK, of Pistoia, Italy, on 20 December 1982 on 15 meters, no sked. Confirmed with QSL cards. □

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

Amateurs aid sea rescue

Last month our column covered thoughts on the part that past "heroes of Amateur Radio" have played on the existence of our present day usage of ham bands. Too often, we have short memories when it comes to that which aided the transition to good things we now take for granted. Along with this short memory, we often forget the reasons for some of the operating practices that have become normal.

In the case of good habits that became standards, it is good to be able to look back into history to see why we tend to operate in a given fashion. Other things that evolved into usage — and are not very desirable — can also be improved when we see where the habit (custom) started. For instance, a number of movies have been made in recent years, showing the use of CB. In most of these, a special "jargon" is used that some poeple associate with two-way radio. When some of those who become involved with radio as a result of the CB license become amateurs, they sometimes bring with them some of their old jargon — or a special "mixed jargon" that they think is proper ham language.

We wish to point out the continuing value of Amateur Radio and the need to operate in a fashion that will aid us in adding to this history. Sometimes this can mean taking a few minutes to review our operating habits — and those of others we talk with on a regular basis. Bad operating habits, can be like bad breath. Even the best of friends are hesitant to tell you about either. The best way to handle an evaluation alone, is to think about what effect your habits have on others, and especially on emergency traffic. As a matter of fact, how well can you pass a given piece of information? Can you do so in a minimum amount of words, and with all necessary content?

While discussing Search and Rescue (SAR) activities on the air a few weeks ago with Harmon Hallet, WA6FAG, I discovered he had been involved in the rescue of three people — about 1,000 miles away, at sea. This was something all amateurs did when they had the opportunity, so it never received proper recognition. I asked him to send me information, and I would like to quote some of his letter. He and his wife had taken their youngest daughter to a camp near Watsonville, California — about 100 miles from home. They had stopped to watch some "windsurfers" and Harmon was listening to the maritime mobile net on 20 meters. This is what happened.

"I heard N6FXH/HL call MAYDAY. He called three times and I waited for someone to answer, but no one did. I wondered if it was a hoax, but figured I'd better call him. He was loud to me, and returned my call, giving his position as 135 degrees 35 minutes west, 28 degrees, 46 minutes north — which was 1,000 miles southwest of Los Angeles.

"He had lost his mast, which had punctured the hull as it fell. There were three people on board — no injuries, but they were taking on water. David Reynolds, N6FXH, indicated that they were pumping and bailing and were under power heading for the shipping lanes.

"I had 2 meters with me, so I decided to call on the 146.64 repeater and ask for someone to call the Coast Guard. Bob Chapin, W6ELD, in Santa Clara, volunteered and passed the info to the Coast Guard in San Francisco. Shortly, the Coast Guard called back, letting him know they had dispatched a C130 rescue plane and asking for more info.

"The *Vicarious* was a 33-foot sloop, with a six-man life raft and a short-range EPIRB emergency transmitter. Dave estimated his time afloat was 24 hours. Later he indicated that he did not believe they could stay afloat that long. He asked if someone could give him a patch directly to the Coast Guard. I asked on the repeater and Tom Rhodes, KA6AFY, in Santa Cruz volunteered to make the patch. I stayed on the maritime net, rather than risk losing him by moving. Someone later advised me that net control, (whom I could not hear), had announced the emergency in progress. Tom made contact with the *Vicarious*. Once direct contact was made with the Coast Guard, no further need for amateur assistance remained. The Coast Guard made arrangements with Dave to turn on the emergency transmitter (121.5), in about 4½ hours — when the C130 was within range. The C130 did not have ham band capabilities.

"Monday, I called the Coast Guard and they told me a Navy ship was standing by while they decided what to do. I heard no more. When the new Callbook came out, I was finally able to get hold of Dave and get the rest of the story.

"The C130 was dispatched from Sacramento. The Coast Guard dropped a pump and the *Vicarious* was pumped out, but could not be adequately patched. The closest vessel could not be contacted, and the other was 100 miles away. The Navy ship, an LST, arrived on the scene because they picked up the C130 on their radar and thought it was in trouble. The Navy sent a launch, which was able to take off all the gear from the sailboat. The sailboat was allowed to sink after the rescue. We had heard the first call around 1:00 in the afternoon on Sunday. The C130 arrived after dark."

Although Harmon is very modest about his part in this event, we must all agree that everyone who took part was essential. A chain is only as strong as its weakest link. Who knows what could have happened without Amateur Radio and these amateurs.

Just as important — what if all the "heroes" of the past had not done "their thing"? What if Amateur Radio had been phased out, as some special interest groups have suggested? We exist for many reasons — each of them important. Speaking only of the emergency use at this time (technological reasons being one of the other good reasons for our existence), we need to remember how to react when needed. This means learning how to keep silent when we cannot directly help, (as Harmon did), unless we see by the lack of other response that we might be useful.

I have heard a number of mobiles reply to a request for someone to call the Highway Patrol, with statements of: "I am mobile, sorry I can't help you." We need to realize that our transmission can slow down response from someone who can help. We need also to realize that if no one answers, we should either go to another frequency, or if that is not possible, state the nature of the problem in a way that will allow someone listening, but unable to transmit, to call for you. Give some thought to ways you can help Amateur Radio and other humans; contribute to keeping Amateur Radio available to our children and our grandchildren — when they grow up! □

The Radio Hobbyist's Handbook

by Joseph J. Carr, K4IPV

TAB BOOKS Inc. announces the availability of a new book — *The Radio Hobbyist's Handbook* (TAB BOOK No. 1346). Published in June 1982, the book is $19.95, hardbound only, and is 396 pages with 221 illustrations. It can be ordered from TAB BOOKS Inc., Blue Ridge Summit, PA 17214; (717) 794-2191.

This is a sourcebook that gives instant access to all the information anyone needs to build, adjust, test, maintain, repair and operate every type of Amateur Radio and accessory, including antennas! It's jam-packed with hands-on advice for every Amateur Radio enthusiast, from the technically-oriented experimenter to the amateur who's mostly interested in talking to other operators.

For those just getting started in this hobby, there's thorough coverage of basic electrical measurement — AC, DC, and RF (radio frequency). Electronic multimeters and their use; how-to's for testing inductors, capacitors, tubes and transistors; and resistance and impedance bridges are described. There's plenty of information about audio and RF signal sources. Oscilloscopes and their accessories are covered in detail. And there's lots of practical use-it-now data on transmitters and transmitter measurements.

If information on antennas is needed, here's some of the most complete and comprehensive data available! From standing wave ratios, advice on testing and adjusting antennas, and using an R-X noise bridge to step-by-step directions for constructing various types of antennas — it's all here.

This handbook is literally loaded with projects and instructions for designing and prototyping radio circuitry. Here's over-the-shoulder advice on tools, construction methods, soldering and wire-wrapping, printed circuits and wire boards, and all the procedures for homebrewing from the first step to final adjustments.

For practical, down-to-earth advice on almost any facet of Amateur Radio, this is a handbook hobbyists can count on!

(About the author: Joseph Carr, K4IPV is an electronics engineer and a long-time Amateur Radio enthusiast. He has written numerous best-selling titles for TAB on both radio and electronics topics, including The Complete Handbook of Radio Transmitters *and* The Complete Handbook of Radio Receivers. *He is a resident of Arlington, Virginia.)* □

TEACHER

Alan Kline, KB1DJ

I hope many of you sent in your comments to the FCC on NPRM 83-28. I did, and here it is.

The Secretary
Federal Communications Commission
Washington, D.C. 20554
Re: NPRM 83-28

Dear Gentlemen,

I am writing in response to the request for comments on NPRM #83-28. In general, I am opposed to both proposals in the document.

Qualifications to comment

I am not an old-time ham trying to prevent newcomers from entering the Amateur Radio Service. On the contrary, I am 34 years old, received my Technician Class in 1977 and did not upgrade to General until early 1982. During 1982, I upgraded to my present class of Advanced, with the call sign of KB1DJ (my old call was WB1FOD).

In 1978, I taught my first Amateur Radio class. That class was so successful, I formed my own non-profit organization — North Shore Ham Services — just to organize and teach Amateur Radio classes. We specialize in helping kids and the handicapped. Located on the North Shore of eastern Massachusetts, and cosponsored by the North Shore Repeater Association, over 350 students have attended one of my code and theory classes. We currently have two classes finishing up with over 25 attendees. To date, our results have been: 103 Novices, 26 Technicians, 56 Generals, 17 Advanced and six Extras.

I only organize and advertise the classes, my fellow repeater club members do all the teaching. It is also my responsibility to write the lesson plans, plan trips to the FCC office in Boston, arrange for classrooms, act as the liaison between other clubs and finally, get new and more students. Most recently, I have rejoined the Boy Scouts of America as a merit badge counselor. I am visiting every Cub Scout pack and Boy Scout troop within the coverage of our repeater. I show them a movie about Amateur Radio and set up a portable station.

Outside of the ARRL, I am the only amateur operator to write a monthly column on the teaching of code and theory classes (**Worldradio** of Sacramento, California). Also, I am the only amateur to have written a feature article about code and theory classes in a major Amateur Radio publication in the last five years (**73 Magazine**, February 1981). When I am not spending time with my young family and working at my job, I spend a good deal of time helping people get their FCC licenses.

I have always realized our need to expand the amateur ranks, especially with the kids of America, for it is they who will be the leaders of tomorrow. I don't want them, like I did, to miss out on such a great hobby as Amateur Radio. I am one of these that believes that if we introduce them into communications and electronics when they are young, they will select them as careers.

For the above reasons, I feel I am qualified to comment on the NPRM #83-28.

Comments

In all classes, only 35 to 45 percent of the students attending pass the Novice exam. After surveying many dropouts, it is true that the Morse code requirement of 5 wpm is what they complain the most about. However, most admit that their lack of studying the code is what contributes to them failing. They come to a weekly class, without having studied, expecting to have the instructor do all the work. We explain to them that it only takes a few 15-minute periods a day of studying, for about three to four weeks, to master copying the Morse code at 5 wpm. Just plain laziness and a lack of true desire is what prevents them from learning the code. I fail to believe, as stated in NPRM #83-28, that there are kids and computer hobbyists who are unable to learn the code. What I do think, is that they think the Morse code is too archaic for them to learn. It is true that computer language and programming are more modern, but Morse Code is far easier to learn and use than a home computer.

The handicapped

Also, in NPRM #83-28, the approval talks about a no-code requirement for the handicapped. As an active member of the Courage Center's HANDI-HAM System, and one who has organized a ham code and theory class at a local rehab hospital, I know this concept to be wrong. Just the opposite, the handicapped ham needs to be treated as an equal.

Through Amateur Radio, I have become friendly with Don Robson, KA1FCC, of Swampscott, Massachusetts. Don didn't get this Technician license until he was past 60 years old, is legally blind, confined to a wheelchair and has movement limited by the two strokes he has had. He learned the code at 5 wpm and upgraded to the 13 wpm for his General with little problems. Currently he is working on the Advanced theory outline. I have little doubt he will upgrade to the Advanced. Robson is typical of many of my students; he always was interested in Amateur Radio, bored with CB, handicapped and a senior citizen — Amateur Radio has become his life.

The FCC has already helped the handicapped with their recent NPRM to deregulate the logging requirements, and more significantly, to have the field offices give the examining process to the amateurs themselves. This way we can better decide how to modify the exams for the handicapped in relation to their personal needs.

It is a difficult decision to make about the no-code proposals. On one hand, I do want the hobby/service to grow, not just to survive. A no-code license might increase our ranks, but not greatly. Also, like many hams, I worked hard for my privileges and yes, the code seemed like the harder part to learn. By nature, I, too, am lazy, but the Morse code is the simplest form of communication we have and by far the least expensive to generate. I doubt if young kids who are experimenting with computers at school are going to go home and set up an Amateur Radio station with a computer, just because there is a no-code license, that is cost prohibitive. Lastly, anyone who can learn the rules, regulations and required electronics theory to pass the Novice Level (element #2), can surely learn to learn to copy the 5 wpm (element #1A). It is just laziness and lack of a true desire to learn that prevents them from becoming amateurs.

My choice

If I had to choose one proposal or the other, I would select the Experimenter Class. They could be allocated the frequencies of 220 MHz and up, with all mode privileges, no power limits and get assigned a distinctive call sign block. They could experiment with digital techniques and the transmission of computer data by direct line-of-sight methods or through repeaters and satellites. They would make a contribution technologically, and maybe — from their interaction with the rest of the amateur population on 220 MHz and 440 MHz — want to learn the Morse code. Hopefully, then they would join us on the 80-meter to 2-meter portions of our bands. The written exam should cover element numbers 2, 3, 4A and 4B (Novice to Advanced).

My proposal

However, as I am against both proposals in NPRM #83-28, I am offering my own suggestions to solve the problem.

The first question most aspiring hams ask me is, "What do I have to pass to get voice privileges?" I have always thought that the old Novice Class, the one that had 2-meter phone-A3 privileges, was the answer. I propose a modern day version of that license, by combining the present Novice and Technician Classes. There would be only entry level — the Technician Class.

The new requirements would be to prove proficiency in only copying the Morse code at 5 wpm (element 1A). Sending of code is rapidly changing to keyboards, so why require them to send with a hand key? The theory requirements would be a new element, just for this newly created entry level.

The theory requirements, being new, would be in line with the practical needs of a beginner. It would be less technical than the current element #3 and more practical than element #2. An entry level should be just that — a way for a beginner to sample all facets of the hobby/service, plus an opportunity to learn the needed practical experience of station operation in both fixed and portable situations. The topics would include: all forms of interference troubleshooting, all current Novice topics (element 2), emergency communications, station setup, antennas, band plans, CW procedural signs, international and U.S. regulations.

Other than the simple electronics on the current Novice exam, element #2, there is little need for today's beginner to know the topics on the current General exam, element #3. Just to get on the VHF/UHF bands, with voice privileges, and have the low-band CW privileges, learning rules, regulations and good operating skills are the important points.

Final comments

What makes my proposal the answer? If we are going to expand our ranks, we must make the entry level appealing to the general public by giving them what they want — easy phone privileges. In being more practical with our requirements for the new entry level, today's beginner would make a good phone (A3/F3) operator on the VHF/UHF bands and increase our reservoir of amateurs to use in emergency situations.

My new class would pose no threat to the U.S. position in the IARU, for we would still be requiring the 5 wpm, element 1A, for under 30 MHz A3/F3 operations. The existing Novices could be grandfathered to Technician Class, thus creating an instant economic demand for gear. Hopefully, the federal government could impose an import tax on ham gear to help the domestic manufacturers recapture some of the market.

I have tried to express my views as best as possible and hope the Commission makes a decision we all can live with. Our motives are the same — we want more of the population to take part in personal communications, build up the USA's reservoir of electronic technicians, help the handicapped and boost the economy.

Gentlemen, good luck on this one.

Yours truly,
ALAN D. KLINE, KB1DJ
West Lynn, Massachusetts □

Getting down to brass tacks with QRP

Kenneth Hand, WB2EUF

This is a 5 watt transistor QRP transmitter that really works and gets very good results.

Having read many magazine articles about low-power QRP transistor transmitters, which seem to me more complicated than necessary, I tried to build a QRP transmitter with a 5 watt output with the least amount of parts possible, using only one transmitter — the 2-N3553.

This QRP transmitter is designed for 40-meter operation, but by changing the inductance and capacity in the final stage, this QRP transmitter will work equally well on 80 meters, proven by the one I constructed.

I adopted ideas from QRP transmitter circuits already published by **Amateur Radio Magazine**, and some ideas which I had in the past. After many trials and errors, I finally succeeded with "on-the-air contacts" from Canada to North Carolina.

Information from QSL cards received have proved that this QRP transmitter can really reach out and make excellent contacts with reports from 559 to 599. Reports from stations contacted have said the tone was good and keying clean.

The 2N3553 transistors can be obtained for less than $2 from supply companies listed in most Amateur Radio magazines, and the rest of the parts can be purchased from any local Radio Shack stores, if one does not have the luxury of a "junk box." The wood breadboard should be of any soft wood (such as fir, balsam, etc.), as these types of wood are easier to push the brass tacks into.

The brass tacks — which are used as the tie points — solder easily, and the sockets for the crystal and transistor can be soldered directly to these brass tacks tie points.

A homebrew key can be made from a 2" length of hacksaw blade, two wood screws, several washers and a wooden knob. These items can be found in most hardware stores.

One of the wood screws and washers are used to space the 2" length of the hacksaw blade up from the breadboard on one end; the other wood screw is used at the other end for a key contact. This wood screw is adjusted in height for best width of gap for easier keying.

The wood knob is attached with the wood screw through the hole in the end of the length of hacksaw blade over the key contact screw. This homebrew hand key is mounted on one side of the wood breadboard, and the transmitter is then mounted on the other side.

This transmitter must load into a 50-ohm resonant, low SWR antenna with an SWR close to 1:1, the 1000pF trimmer condenser is adjusted to get the crystal working and get the best tone with most output.

If any problems are encountered, it could be a defective 2N3553 transistor, a slow-starting crystal, or a mismatched antenna causing a high SWR.

I firmly believe that this QRP transmitter should work well on 20 and 15 meters with proper changes in inductance and capacitance. This transmitter is used on 24 volts with two discarded 12 volt car batteries in series for a 24 volt output. The two batteries last a long time, as the current demand is low — about 325mA at 24 volts. This transmitter also works well on 12 volts, as I have made good contacts using this reduced voltage. These batteries can be kept on a working condition by charging them with any homebrew or commercial battery charger.

I have had very good luck in making QRP contacts by listening to the frequency spots on my receiver dial, for which I have crystals. When a station comes on the air on these frequencies, I just plug in the crystal and reply the CQ on this particular frequency.

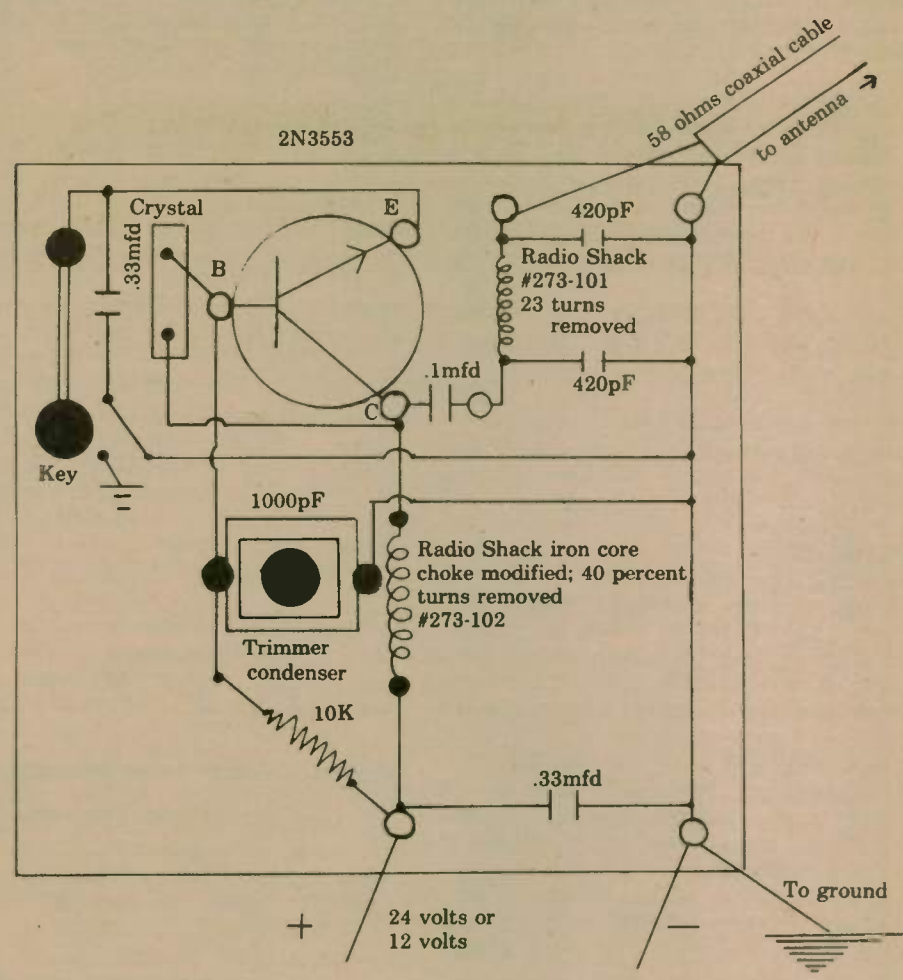
I found another item of great value in tuning up low-power transmitters. It is an SWR meter, sold at Radio Shack stores for use in the Citizens Band Radio Service to tune up transceivers to get the most ouput for the lowest SWR. This Radio Shack SWR meter is very inexpensive and is an extremely sensitive field-strength meter; it includes a small telescopic antenna. Of all the low-power transmitters I have built, this one has given me the most enjoyment in my amateur career.

I would be pleased to answer any letters about this QRP brass tacks breadboard transmitter. Please enclose SASE with your letters. My address is P.O. Box 708, Three Mile Harbor Road, East Hampton, NY 11937.

Hope to hear you on the air for QRP QSO. 73 □

40-meter QRP transmitter parts list

1piece soft wood (5" × 6")	$ .50
1 package of brass thumb tacks	$ .59
1 2" piece of hacksaw blade	$ .25
3 ½" wood screw	$ .05
4 ¼" washers	$ .10
1 wood knob (such as used on furniture)	$ .35
2 feet of hoop-up wire and solder	$ .50
1 1000pF trimmer condenser	$1.00
2 .33mfd — 50 — working voltage bypass condenser	$ .59
1 10.000 ohm ½ watt resistor	$ .29
1 FT 243 type crystal socket	$ .50
1 transistor socket	$ .10
1 2N 3553 transistor	$1.90
1 .1mfd — 50 — working voltage bypass condenser	$ .50
2 420pF at 50 working voltage ceramic condenser	$ .39
1 iron core choke Radio Shack No. 273-101 10mH	$ .89
1 iron core choke Radio Shack No. 273-102 100mH	$ .89



QRP 5 watt transmitter

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

Maureen Pranghofer, KFØI

It was in an earlier issue of **Worldradio** some months ago that I was first exposed to the official wording of the FCC concerning the proposed "no-code" or experimental license. I was personally offended and appalled that they would use reason of physical disability as one of their main reasons for favoring a no-code license. The Courage HANDI-HAM System has helped some 2,000 persons with various disabilities to become amateurs. People like those cited in the following brief examples have learned the code in spite of severe disabilities, and many of them actually prefer CW over other modes of communication.

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Edna Thorson, NØYL, of Grand Meadow, Minnesota ("Eddy", as she is known) was one of the first HANDI-HAM System students back in the late '60s. Like many handicapped people who join the System, she did not have any previous technical background. So, in order to prepare for her Novice and consequent licenses, she read the License Manual, the ARRL Handbook, Ameco books and anything else she could get her hands on, from cover to cover. Then, just to make sure she understood the gist of it better, she reread them. She studied theory because she had to, but her real love was always CW.

For the past 16 years, Eddy has been helping other people who are working toward their 5, 13, or 20 wpm. She can always be counted upon to meet Novices for QSOs and has the patience of Job. She checks in nightly with local CW nets and isn't afraid to get on phone once in a while either. By the way . . . she's confined to a wheelchair.

•

Scott LaBarre, KTØU, of Woodbury, Minnesota is 14 years old. When he was 10, he went from being normally sighted to total blindness in a two-week period. It was about two years ago when Scott first joined the HANDI-HAM System.

After his one-to-one had met with him only once, he phoned me and indicated that Scott had practically all the letters of CW memorized. Like most blind amateurs, Scott had to keep track of the code in his head, with only occasional Brailled notes containing such information as call signs and QTH information. It wasn't long at all until Scott had his Novice. Then it was off to a HANDI-HAM Radio Camp where he passed his General. That following winter Scott decided he was ready to try for the Advanced and then Extra.

The only reason, he indicated, that he didn't get his Extra sooner was that he had to work on the theory. He had set a goal of obtaining the Extra Class ticket within a year's time of joining the HANDI-HAM System. He met his goal hands down by appearing on the air on both phone and CW nets with a two-by-one call within eight months of joining the System. Today Scott is active in many phases of Amateur Radio, but especially traffic handling.

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"It was only a question about a capacitor — something like what it does or something like that, and Rick started talking about the formula for time constants and things that aren't even covered on the General exam," said Dr. Dave Justis, KNØS, a teacher in the General-Tech theory class at the Radio Camp recently held in Malibu, California.

There was no question that Rick Ahlman, KA6RDY, of Santa Barbara, California, definitely had studied and knew his theory. He stated that he did not have much time to operate because he is an electronics engineer in college and has a number of other activities which take up his time.

It takes time for Rick to communicate, as his speech and movements are severely affected by cerebral palsy. However, the message always got across, even though sometimes things had to be frequently repeated. His station is largely operated by mouthstick and computer, which he has designed. Of course, his primary mode of communication is CW since speech over the airwaves is not feasible.

By the way, after four and a half hours (the time it took him to take the exam because of his communications difficulty), Rick successfully upgraded to General Class.

•

Sherry Cardell of Little Rock, Arkansas is a student of the HANDI-HAM System. She will pass the code because it is required for the Novice exam, but more importantly, it will open up a whole new way of communication.

Sherry is totally deaf, totally blind, and confined to a wheelchair having use of only one hand due to multiple sclerosis. Through the help of a Brailled list of the CW characters and a special telephone which she uses to get in- and outgoing phone calls, she has learned the letters of the alphabet and is currently almost up to 5 wpm. Her telephone system uses vibrations which she can feel in CW. She is also using a tactile pad to feel CW sent by ham friends who practice with her. At the present, a puff and sip keyer is being designed for her so she can send her own CW with her mouth and feel what she is sending with her good hand.

I guess I've made my point. A physical handicap does not stop anyone from learning the code. On the contrary, it allows people a new means of communication, a challenge to be overcome, and a chance to improve the image of handicapped people in general by showing abilities. Most importantly, it is fun and makes people feel good about themselves.

It's not uncommon that I receive phone calls such as the following, from a blind student in Ohio working toward his Novice. "I just had to call you and let you know that I passed my code test for Novice. I feel so good, I can't believe I did it." Or the letter in which a student in Massachusetts who is blind and has poor speech wrote, "Well, I passed my code test. You know, I never realized how much fun CW is . . . it's really great. At first it seemed really slow, but you know, it's really fun!" □

Did you read it?

The public-service column in April QST, page 80, carried a guest article written by Don Simon, NI6A, that all traffic handlers should read. Don says that traffic we handle for relief agencies in an emergency may be more important than health and welfare traffic, but it is the latter that makes more friends for Amateur Radio. Our work for the agencies earns us the support of the agencies and of those officials with whom we are in immediate contact, but the general public sees our contribution merely as part of the agency's operation. One might add that the more effective we are as communicators, the less our contribution will be noticed. Health and welfare traffic for the general public, however, is much appreciated by the people who benefit from it.

Don's point is that we should not neglect either function. It should be possible to handle both. More on that later. As training for those who would take part in the health and welfare operation, Don has a number of things to say about exhibit stations offering message service to the public as a good way to go about it, and to make more friends for Amateur Radio too. Read it.

Packet radio

The electronic mailbox will be here soon, whether we want it or not. With microprocessors now costing less than a single transistor did a few years ago, and with all the advantages that go with digital systems, the trend is inevitable. When you can sit down at your terminal and type your message, and have it forwarded to its destination with no other human operator needed, and your addressee finds it all typed out on the terminal to be read at leisure, but delivered within a few seconds of its origination, who would want to go back to our present system of schedules, nets, finding operators who can meet them, garbled traffic and delays because someone did not show up? Who wants to wait two or three days when a message could go through in two or three seconds?

Packet radio, using AMTOR error-correcting code, can be used on any RTTY frequency. It is still in the developmental stage in the Amateur Radio Service, with standards and procedures not yet fully determined. However, it won't be long before it will begin to see more optional use. If the National Traffic System doesn't use it, look for a separate network to develop, and it would not be at all surprising for it to assume the bulk of Amateur Radio's traffic load very quickly.

One possibility I have not seen discussed is that of CW-AMTOR interfacing. A microprocessor used to control a packet station could, in most cases, be programmed also to interface with CW — manually sent telegraphy, providing access to the system to amateurs wno do not have regular packet terminals.

Amateurs who have traffic to put into the system could send it by manual CW. The traffic would be forwarded in the regular way through the system. And messages directed to stations with no packet terminals could be sent to the "post office," which has an interface stored on a disk memory. The addressee would check from time to time, ask QRU?, and the machine would send any messages currently on file. When the addressee acknowledges receipt, the disk would be erased.

In addition to the other advantages already mentioned, these digital systems would also reduce the number of frequencies occupied by traffic handlers — a sore spot for many amateurs not involved in traffic handling, and would also make possible practical exploitation of the meteor-scatter mode of propagation, a mode discovered by amateurs but never much used by us. Commercial and military circuits use it regularly, passing traffic at 100 wpm with only small delays. Meteor-scatter communication would be a good way to put our 50 MHz band to work on a regular basis, and it's wide enough to handle just about any traffic load we could imagine, and still leave plenty of space for other amateur activities.

With VHF and microwave relay systems, terrestrial and satellite, meteor and tropo scatter, plus ordinary HF, the possibilities for packet communication seem endless. But we should retain some capability for manual relay as well, otherwise we would be lost without our machines.

Health and welfare traffic

As noted at the beginning of this month's column, Don Simon, NI6A — as a guest contributor to April's Public Service column in QST — said health and welfare traffic should be provided for in our emergency communications plans. He — along with Norm Brooks, K6FO; Gordon Wenz, N6GW; Bob Dryuff, W6POU; Jim Varner, AE6N; and several others — have been studying the problem, particularly in California but with application to other localities as well, and discussing its solutions on a monthly net meeting on the last Thursday of the month on 3907 kHz, at 2000 local time. This has been in progress for a year now.

Some of the results of the discussion have been collected in an inch-thick stack of papers on various topics related to emergency communications and traffic handling that the participants have produced. We have drawn extensively on them in previous columns, and what follows is also inspired by them.

One problem with emergency communication involving amateurs is the fact that there are several overlapping organizations that can both compete for available personnel and get in one another's way when operating. RACES, MARS, ARES and NTS are the principal ones.

RACES, the Radio Amateur Civil Emergency Service, is not really an organization but rather a set of rules promulgated by the FCC. Stations operating under these rules are controlled by Civil Defense, so the organization is actually Civil Defense, not RACES.

MARS, the Military Affiliate Radio System, is organized to provide backup communication for the military, and is also authorized to provide emergency communication in other cases on a secondary basis to its primary mission on behalf of the military. To complicate matters further, MARS is split into three separate and independent units; Army, Navy-Marines and Air Force.

ARES, the Amateur Radio Emergency Service, is the ARRL's organization, with the mission of providing emergency communication to anyone who needs it. It is under control of the Emergency Coordinators (ECs).

The National Traffic System (NTS) is a system of nets whose mission is to provide communication to any place where Amateur Radio can handle third-party traffic. There are, in addition, independent nets — some with specific missions such as maritime mobile, eyebank, weather, and others which are available for any need.

It becomes confusing to the agencies we serve if representatives of all these groups contact the agencies' representatives to offer help, particularly if the first contact is made during an actual emergency. ARRL strongly recommends (it can do no more) that such contact be made by the EC, either personally or by a delegate. In that way, the agency will have someone definite to contact when Amateur Radio's help is needed, and the EC will know the needs of the agency and how to supply them.

There is a danger, however, in putting everything in the hands of one person. The job may be more than one person can handle. The correct solution in such a case is to appoint assistants to handle the details and leave the EC to coordinate the whole operation. Sometimes, however, an EC may instead give full attention to only part of the need — perhaps the one that appears the most urgent — and neglect the rest. When this happens, Amateur Radio's full potential is not being realized, and the victims of the disaster suffer needlessly.

Health and welfare traffic is usually the first item to be neglected. Yes, it is more important to get blood for the hospitals than to assure relatives that people are still alive and that their house was not washed away in the flood, but the latter is important too.

The best course in most cases would seem to be for the EC to appoint an assistant to manage health and welfare traffic, probably by a separate organization drawing especially on the traffic handlers of the area. While the organization set up by the EC and serving the agencies would naturally have priority as to personnel, it often will be possible to staff both operations, at least on a part-time basis for the health and welfare operation.

The latter operation need not include only licensed amateurs. In fact, it can serve much more effectively if judicious use is made of unlicensed help for the functions which do not require an FCC license. They can handle all the support functions, for instance, like keeping the coffee pot filled. But they can also keep track of what areas are involved in the disaster, making it easy for the operator to give an immediate answer to inquiries about the safety of persons outside that area. They can prepare messages for transmission (such as writing the preamble), sorting them according to destination. They can handle the telephone end of the operation, and act as messengers to deliver and collect traffic where telephone service is not available.

In some cases, it may be possible to establish message centers where the public can originate traffic that is picked up at regular intervals and carried to an amateur station for transmission.

An important source of help for this type of operation is to be found in REACT. In any city of any size, there will be hundreds of people with CB rigs. The amateur assistant EC in charge of health and welfare traffic can make contact with the local REACT group, and will probably find that much of the work involved with delivering and collecting traffic can be turned over to REACT, leaving the amateurs free to concentrate on what they alone can do — put the traffic into the system.

Where there is sufficient personnel and equipment, it is wise to separate incoming and outgoing traffic, and preferably han-

(*please turn to page 45*)

Vern Hansen, AAA9W KD6UI

The following article appeared in the March 1983 edition of the 7th Signal Command Western Area Army MARS Bulletin. The article, entitled "Winter storms damper AAA9USA/Pacific holiday season traffic operations," was prepared by Jim Haley, W6NH/AAR9HN.

Wild weather during the winter of 82-'83 exacted its toll on MARS installations on the West Coast and in the Pacific area, seriously complicating the tough job of handling the heavy flow of holiday season Marsgram traffic across the Pacific.

The following is a partial chronology of storm damage and equipment outages that affected Pacific Net operations of the Army HF/MARS Western Gateway Station AAA9USA at the Presidio of San Francisco. It was only because of a tremendous effort on the part of certain MARS members and stations that the large volume of messages was handled on a timely basis. Particular mention must be made of the Herculean effort of Harold Lembree, AAR9WU, of Long Beach, California.

24 November 1982: At Schofield Barracks in Hawaii, the Army HF/MARS Pacific Relay Station, ABM6USA, sustained extensive storm damage from Hurricane Iwa. Almost simultaneously, Hurricane Pamela struck the Philippines, Kwajelein and Johnston Island. One of the first MARS affiliate stations coming to fill the breach was Bill Boykin, KBM6GW, of Honolulu, Hawaii. Bill provided much needed back-up voice (SSB) communications between the Pacific Area and AAA9USA at the Presidio.

3 December 1982: Hurricane Iwa reached the coast of California, striking with heavy rains and strong winds. AAA9USA suffered a power outage and, to complicate an already critical situation, the station's radioteletype terminal equipment failed, knocking out the RATT circuits.

12 December 1982: Hurricane-force winds again struck the northern California coast, inflicting serious and extensive damage, including widespread power outages in California, Arizona and Nevada. Pacific Gas and Electric Company lost a substantial portion of its power supply resources serving the San Francisco Bay Area when the terrible winds crumpled a number of giant steel towers supporting two 230,000 volt AC and one 500,000 volt DC transmission lines, bringing their conductors crashing to the ground.

A catastrophic blackout of several days duration was avoided because of the successful operation of PG&E's state-of-the-art load-shedding system which automatically matches load to diminished resources by disconnecting circuits as power supply is lost. Although it took a matter of days to reconstruct the downed high-voltage tansmission lines, the utility was able, by bringing its spare generating capacity on line and by purchasing and bringing in additional power from Southern California and Arizona, to restore service throughout 95 percent of its service area within a matter of a few hours.

Heavy damage was sustained by military facilities at the Presidio of San Francisco. Dozens, if not hundreds, of huge trees were blown down, falling across Presidio roads, power lines and other facilities. The situation at the Presidio was aggravated by the condition of the trees on the post. About 100 years ago, the U.S. Army undertook and successfully accomplished a reforestation of the lands within the Presidio. Many of the trees are large and past their prime, and the soil of the Presidio is sandy, providing generally poor anchorage for the root systems. Predictably, AAA9USA suffered from power outages and sustained serious damage to certain of its antenna systems.

MARS members rose to the occasion. From 4 December through 31 December, Hal Hembree provided critical assistance from his station AAR9WU at Long Beach. At the request of the Western Area Army MARS Director, Hal handled a huge volume of Christmas message traffic originating in Korea at Army HF/MARS station AMB4USA in Seoul. During the four-week period, AAR9WU handled 2,190 incoming routine messages plus a number of outgoing priority messages with the Korean Army MARS station.

Other MARS stations assisting in the handling of Pacific Area holiday traffic were AAR9USD at Fort Ord, California; AAR9USB at Fort Huachuca, Arizona; and AAR9CY at Sierra Vista, Arizona, operated by Sergeant First Class Gerald Loewe. □

Nellis Base Support Team update

Alva Cumins Jr., AFA6UI

For the second consecutive year, members of the Base Support Team provided inter-base and inter-site communications for the Fire Power demonstration held at Indian Springs AFS, Nevada. This event gave the team another opportunity to exercise its communications skills for the new Base Commander, Col. McCoy. The team focused on VHF capability with the autopatch put to good use on both days.

On the first day of practice and equipment set-up, it was found that the Command Post base station coax was defective. The cable was replaced. This task was handled by the team without loss of communications, even though the cable had to be pulled through a 40-foot vertical conduit pipe from the basement of the Command Post to the top of the building. The on-site crew at Indian Springs AFS had to relocate their antenna due to phase distortion in the afternoon of the first day.

The second day of the actual Fire Power event proceeded without problems and allowed for a steady flow of communications.

The project director was Jim Goodman, AFA6HL, also Base Support Team leader. Other participants were: Vance Mosser, AFA6CW (Nellis IMD); Bob Mount, AFB6GN: Dennis Wetz, AFA6HZ: Robert Geske, AFA6IH (Nevada SMD); Edward Herman, AFB6IO; Ken Johnson, AFA6LM (Nevada EC); Robert Nelson, AFA6NE; Gene Cumins, AFA6UI; Gardiner (Bud) Goodman, AFA6PR. □

Receiver

(*continued from page 10*)

The receivers produced a 3dB audio signal above the noise, when the noise floor level signal was introduced into the antenna terminals. The receiver bandwidth was approximately 2,400 Hz, depending on its IF bandpass.

The larger the noise floor number, the more sensitive the receiver. For example, a receiver with a noise floor of -134dBm is 6dB more sensitive than one with a value of -128dBm.

Two-tone IMD tests

The two-tone IMD value is also expressed in signal level above 1mV. In this test, two signal generators are fed simultaneously into the receiver's antenna input, operating with a spacing of 20 kHz. When the signal generators themselves produced noise sidebands, the spacing between the two generators was increased to 100 kHz. The problem has nothing to do with selectivity, so the spacing is not too important.

The signal generators are modulated with 400 or 1,000 cycle tones, thus producing additional frequencies in the mixer or IF stages. The ability of the receiver to amplify the RF and IF signals in a linear manner essentially determines the level at which the undesired by-products such as cross-modulation, blocking and intermodulation occur. The simple addition of RF preamplifiers affects the two-tone IMD levels, as seen in the table.

The lower the numerical value, the stronger the signals at which the IMD problem arises. Therefore, look for low values in this column.

Dynamic range

The dynamic range is the ratio in decibels of the faintest to the loudest signals received without significant distortion, noise or non-linearity. A bit more significant than receiver sensitivity, it is the more difficult of the two specs to measure. It requires sophisticated test gear. Large dynamic range in dB is desirable.

Third order intercept

This spec can't be measured. It is a concept based on the two-tone IMD values plotted, and the RF signal level. As the RF signal input level is increased, there is a linear increase in the mixer output. A level will be reached when the mixer output into the IF stages no longer follows in a linear manner with the RF signal input. A convenient point of reference is a 1dB compression point. When the IF output from the mixer cannot follow the RF input linearly by 1dB, that RF input level is called the compression point.

This level — and thus the compression point — determines dynamic range, maximum output of IF signal, and the two-tone performance of various types of mixers. The intercept point is about 15dB higher than the 1dB compression point.

The third order intercept value is important when input signals begin compressing. Therefore, look for high plus values under third order intercept heading.

Other factors

It is unlikely that one receiver will have the best value in each of the four columns. The four specifications are not the only ones to be considered when looking for the "best" receiver. In addition, the receiver image response, selectivity, noise blanking, spurious responses and other characteristics should be considered, when looking over the specs for the ideal receiver. □

Morse from your typewriter: Part II

ED: Last month we ran the first part of this article, which covered the circuit description of the Morse-coded typewriter. The typewriter is a 50-year-old Underwood portable, and was first tested in its new capacity last June, at the ARRL San Diego Convention.

Rev. Dave Ryan, N6AI

Construction

Since the bottoms of the Underwood portable typewriter key levers come level with the rack holding them, it is easy to design a thin brass shim with scissors, cutting fingers — one for each key. (Press Reynolds Wrap foil against your typewriter rack, making a foil pattern.)

Study the drawing of this brass strip wrapped about one edge of a plexiglass strip that is as long as the level rack, pierced with an end of each programmed wire. When a lever is pressing its corresponding finger of the brass strip, that particular wire will be grounded. Each finger is bent so as to make its "knuckle," hit by a lever, contact the wire just before the key itself strikes the paper in the typewriter. Silver wire from burned-out diodes make excellent electrical contact for each programmed wire.

To bolt the device to the typewriter, substitute a fine-thread #6 bolt for the set-screw at the middle and ends of the rack. Under the shift lever, a micro-switch will enable all the punctuation marks in code. A small diode is needed for *each* of the two characters selected at a single key. I mounted the micro-switch on a bracket fashioned from a tin can. The bracket is bolted to the end of the vector board.

As CMOS logic gates have about 10 billion ohms resistance, the inputs must never float: they need about 500K ohms each to ground, to prevent noise and erratic output. Be sure you have nary a cold-solder joint!

Programming the toroids

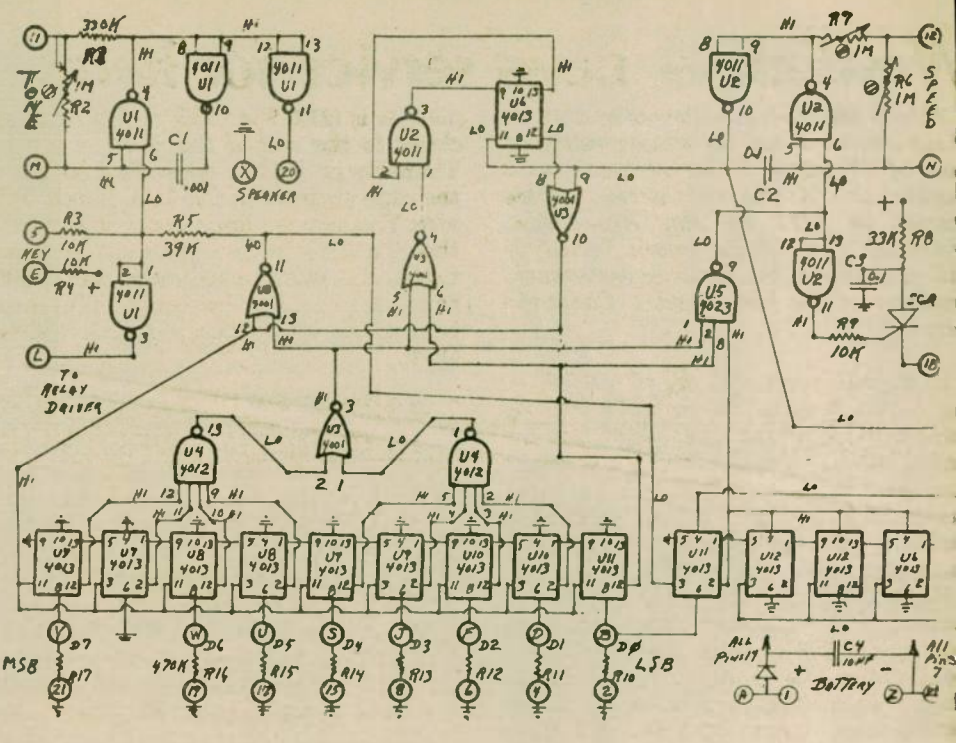
Nested coaxially in holes ⅝" apart in the plexiglass, the toroids — already wrapped with 10 turns of insulated wire — should be cemented in place. Silicone is ever flexible; polystyrene is rigid. Leads should be twisted and brought to a bus ground on the vector board. A high-quality terminal strip cemented to the plexiglass will connect all toroid coils to their respective flip-flops.

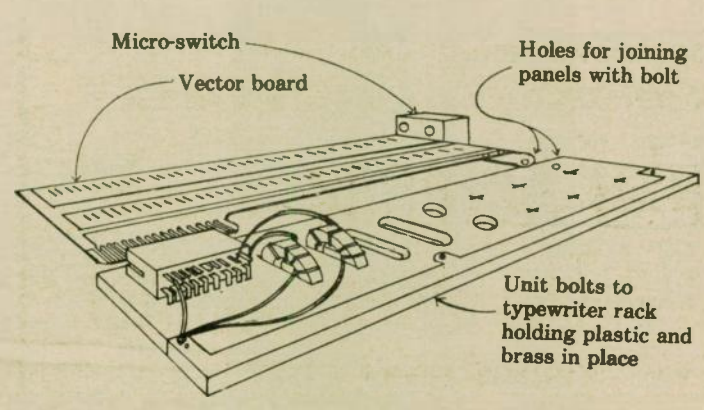
Threading each wire through the toroid array is the showcase of this keyer. It is flexible, open to innovating ideas, tantalizing for trouble-shooting, rewarding for good technique, and relatively cheap. The toroid connected to U11 will be the first bit heard; the positive bus should fan out from this end of the toroid array.

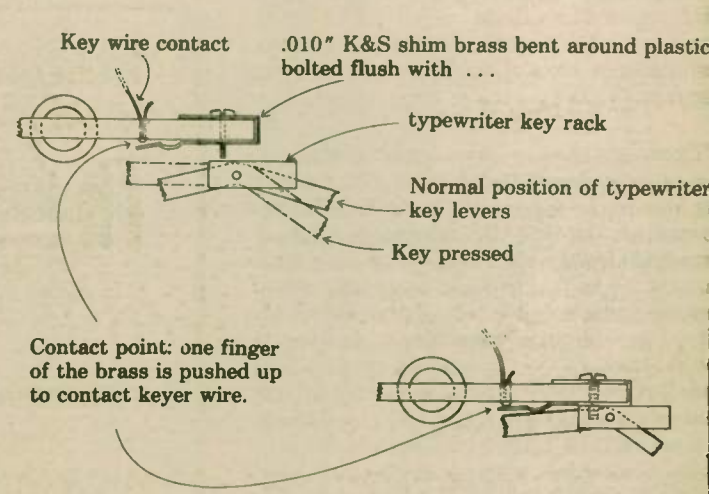
Study the binary interpretation of each character. Observe that after any character is *completed* — for example: H ". . . ." reading from right to left, binary is 00010000; — the machine is turned off by the wire *through* (forming a Set ON, or 1) the fifth toroid from the starting end. "Error" = eight dits, so the wire passes through the last toroid and the ninth flip-flop U11 turns off the machine, after eight dits have played out.

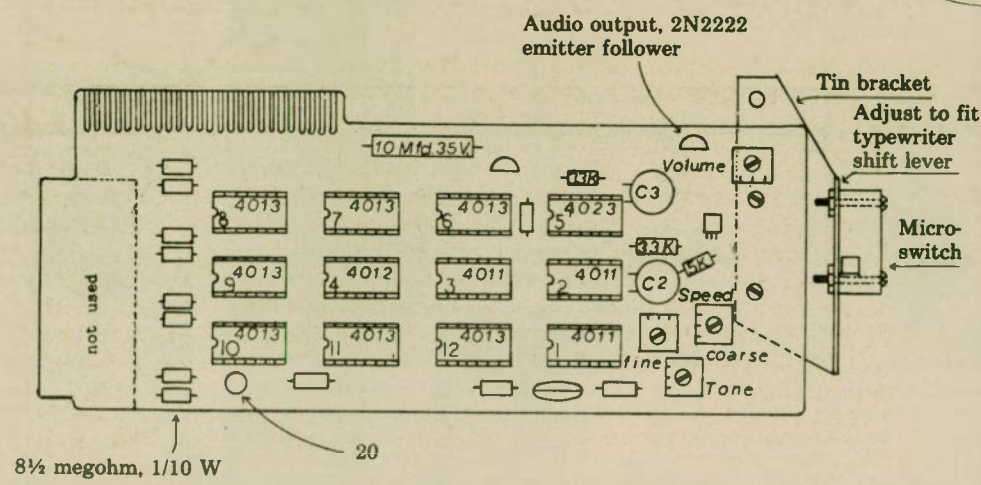
For upper-case key readings (e.g.,? sharing the same key with /), the micro-switch will energize a separate bus with positive shock. So, wires for these shift characters must be fed from this other bus. Remember to put a diode on each wire going to a shared-use key (cathodes facing the key's contact).

Forty or more insulated #30 wires will not fit in any toroid. Even 20 in less than a centimeter hold would crowd your work. So I suggest you economize by forming branches on some wires that have passed through a toroid. Thus, 6 and 7, or B and Z can pass through the early toroids a one single wire, or trunk. Solder *and tes* the multi-bit characters first. Cove soldered joints with insulating cement, a silicone, because a loop will throw you carefully programmed efforts for a loop.









Output

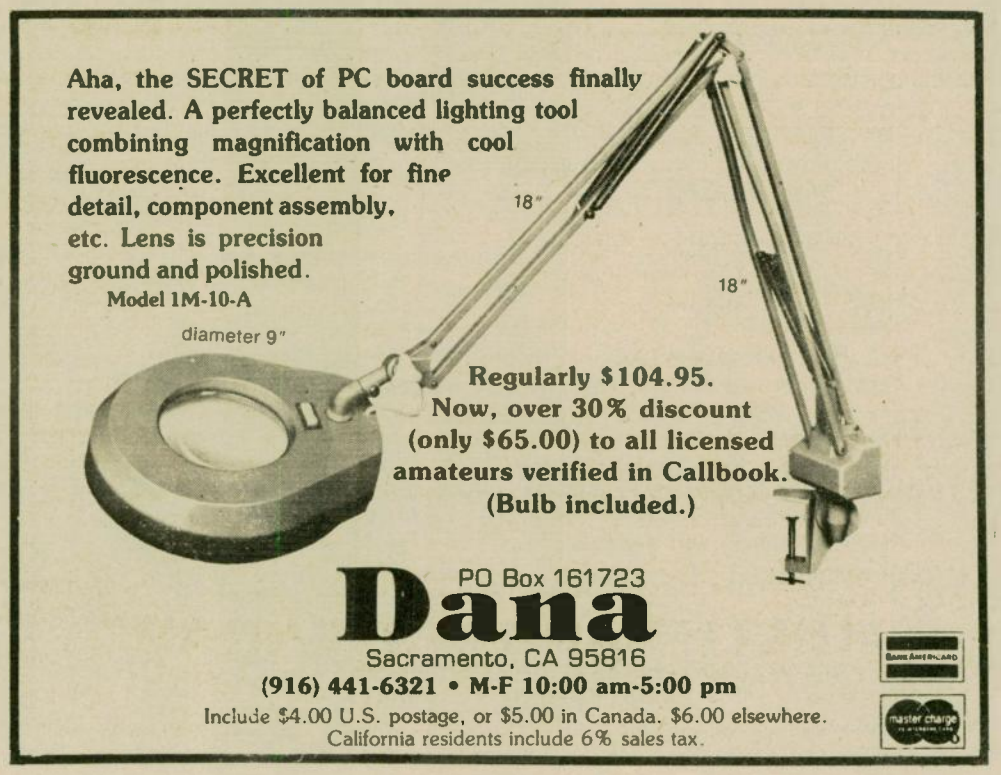
Of course, after the Morse typewrite has taught you the code and how to typ in a steady rhythm, you will want to ge on the air. A transistor buffer (2N2222 powered by a 9-volt transistor battery easily drives my sensitive relay. This keys my transmitter. Be sure the rig is well grounded, or RF will swamp the keyer in to a steady dah. Wear earphones when copying code, or the slapping of type writer keys will confuse you.

Conclusion

A hard-copy record of your own side of traffic is a feature of your Morse typewriter. Also, its earplug can modulate a microphone legally above 144 MHz. The minimal leakage CMOS gates can be idling for over six months without depleting a transistor battery.

If you can program an additional set of toroids (or slave clock) to silence on command the output for the duration of a dah, you may send DE, ES, or program a message through RAM circuits, from one key I'm working on it. Let me know if you beat me to it!

Let Worldradio know what you do in Amateur Radio; many others will be interested in your experiences.



Westlink — news service for hams

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

In a given newscast, any of the following topics may be covered. At the top some any important international or national stories. Usually, these are generated from the FCC, ARRL or some other well-known group; but as mentioned earlier, it can come from anywhere — such as the interview with SP5FM.

Regardless of the "top story or stories," FCC regulatory items, and news from the ARRL or other agencies follow. Next comes the three-second ID break. Then comes other topical news, major inventions, human interest. We close with up-to-the-minute AMSAT/OSCAR news and a DX report. If time permits, we also include something from our "Public Service File."

There are times when we will deviate, if the news warrants. For example, during the last three flights of the space shuttle *Columbia*, the JPL (Jet Propulsion Labs) Amateur Radio Club was providing live shuttle audio to amateurs as part of a shuttle information net. From prior to lift-off to well after touchdown, amateurs could listen to the astronauts over an HT on 2 meters or 220 MHz. This in itself was news, but when an impromptu area-wide net then on later flights, region and nationwide — interlink was spontaneously put together to carry the audio across the nation, it became an almost monumental success story. The result was that it became a feature item for several weeks.

We have also done several "miniseries." Some have been about the Amateur Radio space program. One was our recent "reaction" series on the proposed no-code amateur license. In the latter, we not only started a poll of amateur reaction, but we also interviewed leaders in the amateur community, noted magazine publishers, noted CB leaders — including the president of REACT, as well as the "hams in the street," so as to present all views. This takes both time and money, but we feel we have the obligation in reporting any issue thoroughly and objectively.

Now that you know what we do, you may be wondering where you can hear this news service and how much it will cost you. The latter question first. Your only cost is that of a phone call to one of our fully-automated telephone newslines scattered throughout the USA. While a new newscast is released every Sunday evening at 10:00 p.m. Pacific Time, the update schedule of the machines is such as to permit any given newscast to be available at least 12-14 days. There are two telephone lines located in the Los Angeles area, and they release a new newscast at the Sunday 10:00 p.m. Pacific time-slot. Those numbers are (213) 368-7333 and (213) 465-5550.

In the spring of 1981, the Dayton Amateur Radio Association took on the job of providing a Midwest newsline. It updates mid-week and can be accessed by calling (513) 275-9991.

In the spring of 1982, thanks to another great radio club — the giant Metroplex operation in the NY-NJ-CT area, the latest newsline went into operation. That number is (212) 224-1555, and it updates closer to the end of the week — either Thursday or Friday, depending on when the tape arrives via the U.S. Postal Service. You may not have to call in yourself, though. While we can't give you an exact figure, the latest estimate is that 1,500 repeaters and bulletin stations throughout the nation air each weekly QST.

In addition, a number of international shortwave stations that have SWL Communications Magazine format programs excerpt from us each week. The same goes for a scattering of commercial broadcasters throughout the USA who are looking for something inexpensive to fill their public service commitment. For the latter, there is nothing less expensive than "free."

(Conclusion next month) □

Book Review

VHF-UHF Manual

Published by Radio Society of Great Britain

Jack Hanney, KB7CH

The text of this volume (400 pages +12) was written by talented professionals who also happen to be amateurs. This is a very refreshing change from so many of our "manuals" which consist of poorly written, out-of-date and frequently inappropriate old magazine articles. The manual is $17.50 and is available from the ARRL.

Many tube designs are still carried in this volume, but alternate solid-state designs are also detailed. Of course, RF power amplifiers at these frequencies at high power are still dominated by tubes.

The illustrations are very extensive and of superb quality, very adequately detailing the text.

Subjects are covered in a depth not approached by any other amateur publication. While this is definitely not a "cookbook," it does provide construction projects which can be assembled without an EE degree.

The frequency range of 50 through 54 MHz is not available to the British and is not touched in this volume. They have the 70.025 through 70.7 MHz allocation, and this realm is well covered with many of the designs convertible to our frequencies.

I was intrigued with the most excellent chapter on Aerials — many old standard designs and several that I haven't seen before or on which there have been no practical details in our literature. Once again, the illustrations and theory are beyond anything I have seen before and allow for easy conversion to any frequency range your heart desires.

The chapter on Propagation is remarkable, glossing the subject at first for those who wish only a brief overview. It does continue into an extremely detailed discussion, which should enable one to theorize his way to important practical work in this little understood area.

Microwaves are very well covered in their own chapter with considerable practical material.

I was introduced to this manual by several of the engineers associated with our local major electronic firms. They noted this volume was "state of the art" and that they kept it as a reference in their offices.

Overall, I feel this is one of the finest publications dealing with Amateur Radio that it has been my pleasure to see and read. I would heartily recommend it to any who work in the area above 50 MHz.
— Arizona ARC, Phoenix, AZ □

Spark emergency transmitter

On page 45 of the January issue of **Worldradio** there appeared a reprint from Kaw Valley Amateur Radio Club's publication which, in turn, was a reprint from an unidentified hunter's magazine. It concerned a means of using the ignition system of a conventional (non-diesel) automobile engine as an emergency radio transmitter.

It's quite evident that the original author knew very little about Spark transmitters. The same comment must be made about the editor of the Kaw Valley Amateur Radio Club paper, for he republished it without a caveat. It's just a bit puzzling why **Worldradio** ran it without a large HO! HO! HO! heading.

Let's take a look at the diagram of the emergency transmitter redrawn in the style a radio magazine would have published in, say, 1921 — the heyday of Spark Coil transmitters. Now let's analyze its operation.

As advocated, one could use the circuit for transmitting only very short dits — no dahs. Why? Because closing the key would put 12 volts of *direct current* into the primary of a transformer, thereby creating a short-duration expanding magnetic field that would energize the secondary. This might cause an anemic spark to straggle across the gap. If you held the key closed over a period needed to make a dah, you'd get only a very hot primary and no continuing spark. Of course, when you opened the key, the collapsing magnetic field would cause a hot spark across the gap. So, you see, you could transmit only dits.

Now, let's look into a couple more statements made in the article. It's true that the signal from a Spark transmitter is broad, tapering off from a center frequency to disappear below the noise level to either side. But, for that matter, so does the signal from a modern FM transmitter. Admittedly, the drop-off is much faster on the FM signal, but as old-timers will recall Spark signals could be separated moderately well if not too strong or too close in frequency.

The other statement, the one about range, was pure fiction. Several thousand miles on a Spark Coil transmitter! Having pounded brass on a Ford spark coil transmitter in 1921, I'd say anything over a couple of miles would be spectacular. And don't overlook that 20-foot antenna shown in the article; that's quite a contrast to the four-wire flat-top used to cover a mile or two.

It's true that Spark transmitters did send out signals over a multi-thousand mile range. The radio amateurs who used such transmitters ran the maximum legal power (1kW) and also had antenna systems of impressive dimensions plus elaborate earth grounds.

The author of the article was on sound ground, though. The Commercial Radio Operator examination administered by the Federal Radio Commission, before the examination was split into Radiotelegraph and Radiotelephone sections, had a question on how the operator of a shipboard station could maintain radio communication if his supply of transmitting vacuum tubes were exhausted. The answer, of course, was to use the plate power transformer of the tube transmitter to activate a jerry-rigged Spark transmitter. Note, however, that shipboard vacuum tube transmitters of those days were powered by a 500 Hz alternator run by a 120 DC motor from the ship's DC mains. There's a vast difference between putting 500 Hz AC and pure DC on a transformer's primary!

The bare-bones Spark transmitter shown in *Figure 1* would put out a signal (if fed with interrupted DC), but the circuit needs revision to be really practical. Note *Figure 2*, directing your attention to the high-voltage capacitor and the oscillation transformer. The addition of the capacitor gave what was termed an "active spark." Also, it formed a part of a tuned LC circuit, although this fact was seldom mentioned in descriptions of early transmitters.

I've wondered what would be the results of applying some 1983 understanding of tuned circuits to a revised 1921 transmitter. Suppose we built something like what's shown in *Figure 3*, using cascaded resonant circuits between the spark-generating portion and the radiating portion. Do you suppose the decrement would be sharper than that of the 1921 model? The old Department of Commerce regulations required that there be not less than 24 oscillations in the antenna circuit for each single spark discharge. (The spark across a gap was not continuous, but a series of individual sparks, the number being determined by several factors, among them the length of the gap, the capacitance of the capacitor and the frequency of the AC fed into the transformer.)

It would be interesting to receive comments from old-timers who may have experimented with means of achieving the required 0.2 decrement! □

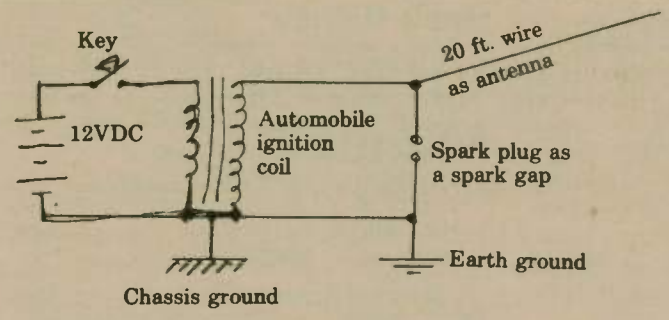


Figure 1 (redrawn from January Worldradio)

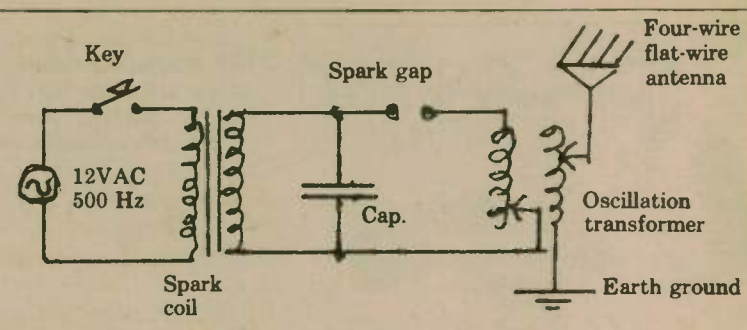


Figure 2

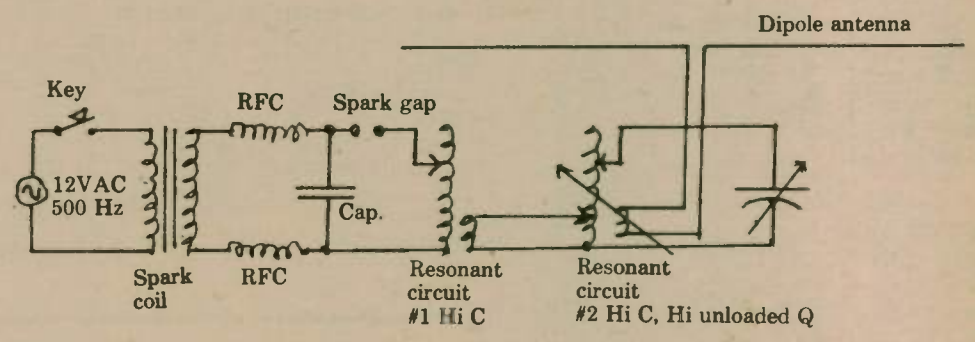


Figure 3

Viet Reds

(continued from page 1)

formal protest would be lodged as a result of an unarmed yacht being fired upon. The incident occurred about 350 miles southeast of Viet-Nam in a group of islands claimed by both Viet-Nam and China. A few years ago, an attempt by DXers to operate from one of the islands was aborted when met by a military force.

In this latest incident, the boat's fuel tanks were hit and exploded; the sinking was almost immediate. A distress call was sent prior to sinking. Commercial airlines changed their routes between Singapore and Hong Kong to aid in the search.

Coalinga

(continued from page 1)

and crew. "Please call mother as soon as possible." The health and welfare inquiries came in from across the nation. Miraculously, with a business district in shambles, there were no fatalities and but three serious injuries.

(This story was written the day before **Worldradio** went to press. In order to do a more complete job, we invite stations that were involved to send in reports and, if possible, photographs. Your account may assist planning in other communities and possibly wake up those whose attitudes is, "It can't happen here.") □

AMSAT

(continued from page 30)

AMS-81 tracking system

A tracking program which will operate on the Timex ZX-81 or Sinclair Timex TS1000 computers is available from AMSAT at a cost of $15. Contact AMSAT, P.O. Box 27, Washington, D.C. 20044. Ask for AMS-81 tracking program.

Launch crew for Phase IIIB to include W3GEY and W4PUJ

Between 25 April and 15 May, Jan King, W3GEY, and Dick Daniels, W4PUJ, are scheduled to be at the Launch Site Four Base IIIB in Kourou, French Guiana to help integrate the spacecraft with the ESA Ariane LO-6 launch vehicle.

We have sent some film along with Dick and hope to be able to bring you some photos, in our next column, of the Phase IIIB preparation for launch.

W5LFL to transmit from STS-9

As this is being written, we have just heard that approval has been given for W5LFL to operate a 2-meter FM transmitter aboard the STS-9 shuttle. This will make Dr. Owen Garriott, W5LFL, the first amateur operator to transmit from space. So far as we can determine at this time, the transmissions will be one-way — that is, downlink only. What provisions are being made for QSLing are not known at this time.

Ham ET Watch

With the assistance of NASA scientists at Ames Research Center near San Jose, a non-profit group identified as Delta Vee is encouraging amateur Search for Extraterrestrial Intelligence (SETI) Projects by amateurs. Dale Ubil of Delta Vee has been organizing meetings in the Bay Area (San Francisco) with amateur operators every three weeks. Mobile SETI demonstration equipment is being demonstrated.

Several amateurs are reported as being close to operational. A man (unidentified) in Chicago is said to have completed and is on the verge of testing a small SETI system with a 12-foot dish and microcomputer programs for incoming signal analysis. Ubil publishes a newsletter called *CQ-ET*. More on this later if we can get the information. □

Ron Flynn, KB8LU

By now, most of you have seen the obot ads here in **Worldradio** and other ublications for their new 12 second ingle-frame color SSTV retrofit to the opular model 400. I'm off to Dayton in a ouple weeks and will report on this new reakthrough in next month's column.

I received a card for Rich Skolnik, 6GMZ, that there is regular SSTV ac- vity now around 14.340. However, it is ncertain now whether that activity will emain there. At its 31 March meeting, he FCC adopted a new 20-meter band- an to go into effect in about 30 days.

Generals will have phone privileges om 14.225-14.350. Advanced and Extra lass licensees will have phone privileges om 14.175-14.225, and Extras will have xclusive privileges from 14.150-14.175. anadians and other DX SSTV stations ave been sending SSTV on 14.185 for me time. I would assume that most of he Generals would come to 14.230 and hat an SSTV frequency around 14.185 ould also become established.

olor SSTV considerations

When the time comes to choose a color STV system, there are many things to ompare and consider before making that g decision. The cost of a color SSTV ystem is a major factor. However, costs hould be weighed and compared with the uality of the system, the service you can xpect, and the results you can expect to e in your shack in the form of a color STV picture.

In this column, I'll compare the relative osts of the various color SSTV systems nd rate the quality of the color picture ou can expect to see with each. In all ases but one, costs are for the color por- on of the SSTV system only. It is ssumed you already have a 400 or com- uter. You must also have a color monitor r TV. A color camera is not necessary.

The Interface Systems 3000C color con- ersion to the Robot 400 was the first ommercially available color SSTV ystem. Its cost, including an interface to he color TV, is moderate. The system is f excellent quality, easy to operate, and ervice is very good. It is available wired nd tested or as a do-it-yourself kit. The uality of the color SSTV picture is xcellent.

The Colorscan 403 system is also a con- ersion to the Robot 400 and is offered in t form. It uses a color encoder to any TV et and is moderately priced. The system of excellent quality, easy to operate, nd service is good. UPS and mail delays an be expected between the United tates and Canada.

The German SC422A is a dedicated col- SSTV scan converter. It is expensive, sting about twice the retail price of a obot 400. You can use a TV interface or olor encoder with the SC422A at extra st. The quality of the unit is very good; rcuitry is similar to the Robot 400. peration is often confusing with poor witching design and labeling. Service is uestionable. The quality of the color pic- re is very good.

I would not recommend that anyone buy a computer solely to get into SSTV. There are color SSTV systems available for two popular computers. Photocaster is a hardware/software B&W and color SSTV system for Apple computers. Its cost is moderate, less than the two Robot conversions. The quality of the system is excellent, as is the service.

Hookup to the Apple is easy. Operation is via the keyboard and is menu selectable. It is easy to operate, though a bit slower than 400 conversions. The quality of the picture is very good.

There are several color SSTV systems available for the TRS-80 Color Computer, all utilizing Clay Abrams, K6AEP, software. The various systems can be homebrewed from schematics, PC boards or kits, depending on your skill level and time available. A couple are now available, wired and tested. Quality of the components you would buy is generally good to very good. Service is often slow.

Though quite inexpensive, earlier systems gave only fair B&W SSTV picture display and color display was poor. Improved versions based on the 7.6 program will give excellent B&W picture display and good color display. Costs are rising though. Even in kit form, the cost of the six boards that make up the system is about the same as a Robot 400 conversion.

Six-Month SSTV Survey

Besides the above considerations, you might like to know what types of SSTV activities can be found on the air. If you are going to invest a lot of money in a color SSTV system, you will certainly want to know what you can expect to see on the air. What started off as a statistical assignment for a fellow SSTVer's son who was taking a computer course in school, was expanded into an extended study and survey of actual SSTV activity on the HF bands. With the aid of several amateurs, we chose one calendar week per month from October 1982 through March 1983. We monitored and recorded SSTV activity on 10 and 20 meters for 18 hours each day, seven consecutive days, in each of six months.

We recorded the call signs and SSTV equipment being used by the various stations heard. We recorded the primary SSTV transmission mode being used in each QSO. We noted, at the end of each week, how often each station was active.

Of nearly 1,000 SSTV QSOs during the survey, 8.5-second B&W SSTV was the primary transmission mode in just under 50 percent of the QSOs. Just over 25 percent of the QSOs were RGB frame sequential color; 25.5-second single-frame color accounted for about 22 percent, and the remaining 3 percent was high resolution B&W and other experimental transmissions.

Nearly 400 different U.S. SSTV stations were heard. Of that number, about 58 percent were using standard single-memory Robot 400s. About 24 percent were using the Robot 400 with the 3000C Interface Systems conversion. About 50 percent were using the TRS-80 Color Computer mostly in conjunction with a Robot 400; 3 percent used the Microcraft 1000; 1 percent used Colorscan 403 with a 400. The remainder used other Robot equipment, the Apple computer, and other equipment.

Of the 400 different SSTV stations, about 10 percent were active on three or more days of each week for all six weeks of the survey. About 17 percent were active at least one day each week during the survey.

Comments

The renewed interest in SSTV spawned by the sale of Robot 400s earlier this year is substantiated in the survey. In the last months of the survey, 25.5-second SFC replaced RGB frame sequential color as the primary color SSTV transmission mode. Stations transmitting color SSTV were much more likely to change transmission modes to accommodate B&W SSTVers on frequency. In the relatively few QSOs of high resolution B&W SSTV, those participating rarely made any attempt to accommodate 8.5-second B&W SSTV stations on frequency.

Anyone wishing a copy of the full eight-page Six-Month SSTV Activity Survey can obtain one by sending $1, to cover costs of reproduction and postage, to Ron Flynn, KB8LU, Rt. 2 Box 204, Bangor, MI 49013.

To protect the privacy of all SSTVers, all lists of SSTV call signs and SSTV equipment compiled while monitoring the SSTV frequencies *have been destroyed.* The names of SSTVers, their call signs and the equipment they use are *not* included in this survey and are *not* available. 73's □

Traffic

(*continued from page 40*)

dle outgoing traffic via CW. Those who have done so have found that it's cleared with much less hassle.

There will invariably be a sizeable number of amateurs who will want to check with a station in the disaster area to ask about a relative, something the disaster area operator must anticipate and have an answer for. With such requests coming in by the dozens, and plenty of other traffic to handle, there will be the temptation to give a curt reply. But remember that the inquirer's concern is genuine and deserves a sympathetic hearing. In some cases, it may be possible to have one operator who will take care of such requests, leaving the others free to handle traffic and directing such requests to the frequency where the informal inquiry station is operating. The latter would be the one who has a staff to keep track of the various areas affected by the disaster, and in many cases can give an immediate answer without having to contact anyone else.

In short, in disaster communications our aim should be to provide reliable communication primarily to the relief agencies, but also to as many others as possible, and trying to meet the needs of those we serve.

Above all, we must never forget that we are dealing with people, not statistics. A thousand people may be homeless, but each of them is very important to certain others, and they must each be important to us, too, when we put them in contact with those others. □

•••••

When submitting photos, please *DO NOT* write on the backs of them — they often stain the fronts of other photos, making them unusable.

Aerials

Lil Paddle

Kurt, you're a relic of bygone era! You call 160 metres "the gentleman's band" — what about the ladies who are on 160?

Speaking of 160, Howard Hawkins, WB8IGU, has worked out a 160 antenna in only 30 feet overall. Starting at the top, a 6-foot rod. Then, #18 enamel wire, close-wound for 600 turns on a 4-foot long piece of PVC pipe. (I shan't give you the diameter; work out something for yourself.)

That coil then feeds to a 20-foot TV mast (or two 10-foot ones coupled together). You can use a Coca Cola bottle as the base insulator. From the bottom of the mast go to a 350pF variable capacitor and then to the center conductor of 50-ohm coax. Ground the shield side.

The usual addendum to anything written about verticals, performance is relative to grounding system, is applicable here.

Thus, you have seen it is not necessary to have a large garden in order to be on 160. There is, however, a problem with vertical reception on that band. To be quite frank about it, there's a somewhat deplorable noise level. A common solution is a horizontal receiving wire of some nature. Shielded loops in the radio room itself have been used to fight the problem.

Another problem resulted in a rather novel solution by John Reed Sr., WD0CCW. Mobile in a van, he has been working VK and ZS, etc., with a Hustler brand vertical. Here's the twist: He took five-conductor rotor cable and cut the wires to a quarter-wavelength for each band. The wire is taped and tie-wrapped to the frame.

John says on-air tests with other stations show a definite difference in signal strength when the counterpoise is used. He makes the point that the wire should run in a counter-clockwise direction.

Some experimenters, in quickly throwing together a Yagi antenna, find a problem in getting a proper match. An English amateur, one C. Loftus, G6AFJ, writing in *Practical Wireless*, found this solution.

Using aluminium tube of 12.5mm diameter, the reflector for a 2-meter Yagi is 1041mm long, the director is 927mm long; reflector to driven element is 495mm; driven element to director is 432mm.

Now comes the clever part. Loftus took some motorcar brake pipe (two lengths, each 584mm), and did this with it: One half of the driven element extends for 381mm, then a right-angle bend for 12.5mm and then another right-angle bend for 190mm. It looks like a partially completed folded dipole. There is a 1-inch spacing between elements, and is fed directly with 50-ohm coax.

Varying the gap between the 381 portion and the 190 length should drop you right in on the spot. No tricky gammas, T's or whatever. Such could be scaled up or down.

Now, something for those in very restricted space circumstances, so restricted that you can't even get out four radials for a ground-mounted vertical. Starting with the 10-metre band, get two poles about 9 feet long and strap them 8′8″ apart to, let's say, your back garden fence. Coming from the center conductor of the coax is a wire going up one pole, across in the air to the other pole, down that pole, and then back to the original pole and connecting to the shield side.

This should be rather better than the usual performance of a vertical with one or two radials.

If conditions should permit, you could really gild the lily by building another loop 4′ 2″ behind that one, making the dimensions 8′ 11″ on a side, which would act as a reflector. Yes, it is truly a quad on the ground, keeping a low profile, but with a vastly different outcome from other semi-hidden antennas.

It should be noted that dimensions given are but starting points in this situation. Some of the less astute among us will begin to desert 28 MHz in times to come. However, others will continue to be ever alert for the unexpected openings.

In conditions extremis, loops may be hung from eaves (two-storey house, 20 metres), squirreled away in attics, and so forth, limited only by your own imagination. Such would be rather more efficient than verticals sans proper radials systems.

One resourceful amateur with a two-car garage put the apex of the dipole under the peak of the roof, snaked the wires every which way and ended up with a fairly good signal on 40 metres.

Two apologies are in order. Last month's column was plagued by a gremlin at the typesetter. The number above the 50 MHz SWR chart was 5 metres instead of, as it should have obviously been, 6 metres. Possibly there was a telepathy path at the moment the key was stroked for I still hark back with fondness to

those days when we sat huddled around a VHF "rush-box."

Next, a letter was sent to my "worser" half. He has totally misplaced it, for which he is dreadfully sorry. The letter writer was even kind enough to enclose an SASE for an answer.

Please accept a late answer. It had to do with the noise bridge, a half-wave line balun and tuner. The answer is, yes, a coax balun — as mentioned — would have to be taken into consideration if it was a 1:1 balun. Should it have been a transformation balun — 4:1, for example — then the half-wave line would repeat the impedance seen at the end of the balun.

However, if you always use — as mentioned — a tuner, utter finesse is not necessary as the tuner will actually and truly correct for whatever condition exists. Of course, that is if the range is within that of the tuner.

Speaking of tuners, if you should see at your local flea market the old Johnson Viking Kilowatt Matchbox, give up eating lunch for awhile if necessary, but *GET IT.* Note: the smaller 250 watt version looks similar, so don't be fooled.

The difference is far, far greater than the power handling capability. It is in the actual construction and distance from the coils to the case. Yes, the difference is so great that you will hear signals on the big one that will not be heard on the smaller one.

Kurt says next month he will present a very interesting letter from KA0JWO. Let us hope he doesn't lose it in the meantime. I'd suggest that if you are keen on getting an answer, you despatch your queries to me.

(Lil goes by her disguise name in order to avoid confrontations with the lost-in-space hamateurs amongst us who, when hearing someone mention entering "Sweepstakes" says, "I'll bet if you don't subscribe to any of the magazines they throw your envelope away and you have no chance at all to win the $250,000 house.") □

MARS/CAP modification

Bryce Rumery, WB1BTQ/AL7 (NNN0PJF)

The ICOM IC-255A is a fine overall 2-meter radio, but for those of us who are MARS members, the VFO frequency range of 143.80 to 148.195 MHz leaves something to be desired. Take heart — here is a modification that requires nothing more than a little "sleight of hand" on the front panel knobs and absolutely no internal changes. This mod will give the 255A a VFO range of 142.000 to 149.995 MHz (not bad for no internal mods, huh?). Follow the steps shown below, in order, and you can't go wrong.

I will use 148.375 MHz for the upper example and 142.90 MHz for the lower example in the instructions, but these steps will hold true for all frequencies above and below the normal VFO frequency limits.

1) Set the "A" VFO 1.2 MHz below (or above) the desired frequency. In our example, 147.175 (7.175) for 148.375 and 144.10 (4.100) for 142.90.

2) Set the offset switch to "R" for frequencies above the normal VFO limits (over 148.195) or to "N" for frequencies below the normal VFO limits (143.80) and key the transmitter. The readout will now be 147.775 (7.775) in our example for the upper frequencies or 143.50 (3.500) for the lower frequencies.

3) While the transmitter is keyed, rotate the offset switch to the opposite offset ("N" for the upper frequencies or "R" for the lower frequencies). At this point, unkey the transmitter and the readout, and the receiver will be at the desired frequency (148.375 for our upper example and 142.90 for our lower example).

As for offsets — if the repeater has a standard offset, put the VFO frequency into your favorite memory and use the regular offsets. If the repeater has a non-standard offset, then follow the above procedure to program the "B" VFO and operate the 255A on the "A/B" offset. As always, simplex is simplex. A word of caution: the VFO range will be 142.000 to 149.995 MHz. Attempts to go beyond these limits will cause the entire CPU to "dump" all memories and the two VFOs as well, and you will have to program everything all over again. The VFO will work normally above and below the normal limits of the 255A (143.80 to 148.195) as far as tuning goes, but take care not to exceed 143.80 or go lower than 148.195 as it will be necessary to do the procedure again to once more get above or below the normal limits.

Anyone having any questions about the procedure, feel free to contact me at (907) 753-6395 or on the 34/94 machine.
— *Anchorage ARC, AK* □

Another IVB

Irvin Hosford, KA0IVB, in South St. Paul, Minnesota, worked another IVB station on 9 April, on 40 meters. The other amateur was Fletcher James, W4IVB, in Valrico, Florida.

W4IVB — an Extra Class operator — has been an amateur since 1946, and it was his first similar call sign experience. Station KA0IVB has been on the ham bands from 1970 to 1972, and on this call sign ticket since 1980. □

Computer Patch™ interface

Now you can easily convert your personal computer and transceiver into a full-function RTTY station with the new CP-1 Computer Patch™ interface by Advanced Electronic Applications (AEA) and appropriate AEA software and cabling. The CP-1 is a professional quality RTTY/CW terminal which cuts no corners on sensitivity, selectivity and reliability. Software packages include split-screen operation and large type-ahead and message (brag) buffers at all the common RTTY and CW speeds.

The CP-1 Computer Patch™ is easy for an inexperienced RTTY operator to hook up and operate, but will still appeal to the more experienced and sophisticated RTTY user. The CP-1 is a moderately priced, high performance, feature-packed unit, which utilizes reliable innovative design in the style you have come to expect from AEA. It is priced competitively with other popular units, but includes many extras not offered by them.

With the tremendous price drop in personal computers, your total system is far below that of dedicated RTTY/CW systems which offer few, if any, additional features. No computer programming knowledge is required to use the CP-1 with your computer, and you will still have the opportunity to use your personal computer for a variety of unrelated functions.

The CP-1 demodulator provides greatly improved performance compared to popular single-channel RTTY detectors. An easy-to-use AEA magic-eye bargraph tuning indicator gives the closest thing to scope tuning, but separate Mark/Space scope output jacks are also provided. A state-of-the-art multi-usage active filter is incorporated offering pre- and post-limiter filtering. Floating comparator (automatic threshold) circuits give the best possible copy under fading and weak signal conditions.

Additionally, the CP-1 offers a variable receiver shift capability for any shift from 100 to 1000 Hz with a NORMAL/REVERSE tone selector switch on the front panel.

A function generator chip is utilized for clean, stable sine wave AFSK tone output to the transmitter. Both plus (+) and minus (−) keyed output jacks are provided for CW keying of virtually any popular transceiver. Automatic transmit/receive switching is available under computer control or from a front panel manual transmit button. Output and computer control signals are available in the usual TTL levels (or RS-232 format with an optional low-cost RS-232 kit).

Power requirement for the CP-1 is 16VAC which is provided by a 117VAC wall adaptor unit supplied with the CP-1 Computer Patch™ is housed in an attractive all-metal enclosure with extensive RF filtering for minimal RF susceptibility or radiation, far exceeding Part 15, subpart J, FCC requirements. The CP-1 measures 10″W × 2¾″H × 8¼″D and weighs approximately 1½ lbs.

For software package information, please ask your dealer or contact AEA, P.O. Box C-2160, Lynnwood, WA 98036; (206) 775-7373.

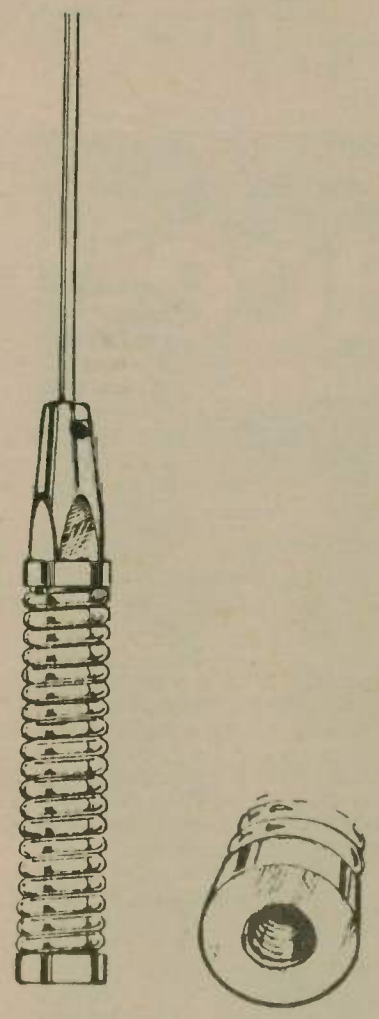
Take advantage of the new low cost/high performance ratio and find out why RTTY is the fastest growing segment of Amateur Radio. See your favorite dealer for a demonstration of the CP-1 today. Prices and specifications subject to change without notice or obligation. □

Pass it on . . . WORLDRADIO

Wide-band ¼-wave antenna

The need for various services on widely scattered frequencies can be a real problem to government and law enforcement agencies. Now Larsen Electronics' WBQ antenna offers a bandwidth of 20 plus MHz at less than 1.5:1 VSWR.

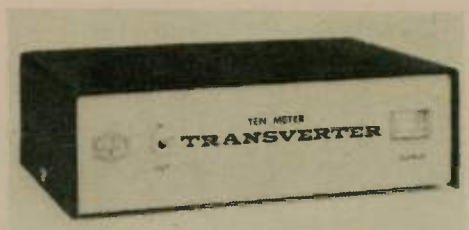
The Larsen Wide Band Quarter Wave is available for LA, SM and NMO hardware sets. All offer the 20 MHz bandwidth at any center frequency from 144-174 MHz.



The LA and LM both interface with the 5/16″ × 24 stud on the mounts. The length of the element for any range varies because of the different antenna feedpoint height above the groundplane caused by different mounting hardware.

All Larsen WBQ antennas are precut to 160 MHz center frequency to cover the 150-170 MHz band. The Larsen factory will cut antennas for different coverage on request.

For more information, contact Larsen Electronics, P.O. Box 1799, 11611 NE 50th Ave., Vancouver, WA 98668; (206) 573-2722. □



10-meter FM transverter

A unique 2-meter to 10-meter linear translator has just been introduced by Heil, Ltd. This new product allows a 1 watt (maximum) signal from 144.00 to 146.00 MHz to receive and transmit a signal on the 10 meter band from 28.00 to 29.70.

The Model 210 is primarily designed for use in the 29.30 to 29.70 FM band using a 1 watt handi-talkie or mobile transceiver for excitation, but is also usable on SSB, CW, AM and RTTY by exciting with an all-mode 2-meter rig. The Model 210 has three SO-239 connectors on the rear panel; 2-meter 1 watt input, 2-meter antenna, and 10-meter antenna. With the front panel function switch in the "out" position, the 2-meter antenna is connected to the 2-meter transceiver or handi-talkie.

Switching to the "in" position will cause the transverter to operate and produce a signal in the 10-meter band. The receiver sensitivity is .3uV for 10dB quieting. The output power is approximately 4 watts out at 29.60.

The model measures 6″W × 4″D × 2″H and is priced at $100 (subject to change). For more information, write to Heil Sound System, Heil Industrial Blvd., Marissa, IL 62257. □

30M antenna coil

KW-30 antenna coils allow trapped dipol coverage of the new 30-meter band (10.100 10.150 MHz). Resonant frequency is designe to provide a perfect half-wave dipole.

Power handling capability is 2kW PEP minimum. Hi-Q characteristics are obtained b optimum form factor on polystyrene. Coil dimensions are 5.5″ × 1.8″ DIA. Weight is ounces. Tensil strength is 800 lbs. An acryli lacquer waterproof coating and all-aluminu hardware help to resist interface corrosion.

Specification sheet and installation instruc tions are supplied. Price and delivery ar $32/pair and immediate shipment, respectively For more information, contact Emily Bostic Microwave Filter Co., Inc., 6743 Kinne Stree East Syracuse, NY 13057. U.S. toll fre 1-800-448-1666 (collect 315-437-3953 i NYS/CAN/HI/AK).

Multi-mode transceiver

Yaesu Electronics Corporation is pleased t announce the Spring 1983 availability of th FT-726R, the world's first amateur HF/VHF UHF transceiver capable of full duplex opera tion for satellite work.

The basic FT-726R comes equipped fo 2-meter operation on SSB, CW and FM. Op tional units may then be plugged in, enablin operation on 10 or 6 meters, 430-440 or 440-45 MHz on 70cm. The optional SU-726 Satellit Unit allows crossband full duplex operatio for simultaneous uplink transmit and downlin receive operation on amateur satellites.

Controlled by an eight-bit microprocesso the FT-726R features a dual VFO plus memor frequency management system, with indepen dent frequency/mode storage on each VFO o memory; mode-inverting satellite transponder are therefore covered with ease. The transmi and receive frequencies may be varied durin satellite work, to allow easy zero-beat capabil ty while following Doppler Shift.

Equipped with many features found only o HF transceivers, the FT-726R includes an SS speech processor, IF Shift, Variable IF Banc width Tuning, IF Noise Blanker, R.I.T., multi mode squelch, and a receiver audio tone con trol. A CW filter, DTMF Encoding Microphon (YM-48), Desk Microphone (MD-1B8), Externa Speaker (SP-102), and CTCSS units are a available as options.

For more details about the FT-726R, contact Yaesu Electronics Corp., P.O. Box 49, Para mount, CA 90723. □

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Ham Radio Outlet
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Burlingame, CA 94010

Jun's Electronics
3919 Sepulveda Blvd.
Culver City, CA 90230

Fontana Electronics
8628 Sierra Avenue
Fontana, CA 92335
(714) 822-7710 or (714) 822-7725

Jun's Electronics
7352 University Ave.
La Mesa, CA 92041

Henry Radio
2050 S. Bundy Dr.
Los Angeles, CA 90025
(213) 820-1234

Ham Radio Outlet
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Oakland, CA 94609

The Radio Place
2964 Freeport Blvd.
Sacramento, CA 95818
(916) 441-7388

Ham Radio Outlet
5375 Kearny Villa Road
San Diego, CA 92123

Quement Electronics
1000 S. Bascom Avenue
San Jose, CA 95128

Shaver Radio
1378 S. Bascom Avenue
San Jose, CA 95128
(408) 998-1103

Tele-Com/Alltronics
15460 Union Avenue
San Jose, CA 95124
(408) 377-4479 or 371-3053

Ham Radio Outlet
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Van Nuys, CA 91401

HAWAII

Honolulu Electronics
819 Keeaumoku Street
Honolulu, HI 96814
(808) 949-5564

ILLINOIS

Aureus Electronics, Inc.
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Naperville, IL 60540

MASSACHUSETTS

TEL-COM Communications
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Littleton, MA 01460
(617) 486-3400 or 486-3040

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Ann Arbor, MI 48104
(313) 668-8696

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Henry Radio
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Butler, MO 64730

NEVADA

Jun's Electronics
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Reno, NV 89502

NEW YORK

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Oneida Cnty. Airport Terminal Bldg.
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(800) 448-9338/out-of-state

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Universal Amateur Radio, Inc.
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Reynoldsburg (Columbus), OH 43068
(614) 866-4267

TEXAS

Appliance & Equipment Company
2317 Vance Jackson Rd.
San Antonio, TX 78213
(512) 734-7793

Alaska

The ARCTIC AMATEUR RADIO CLUB of Fairbanks, Alaska will have a hamfest, 4 June, at the Tanana Valley Fairgrounds, the Kiwanis AG Hall. There will be door prizes and a raffle. There will also be a $5 fee for all sellers and a left-footed key for a code contest.

Doors will open at 8:00 a.m. for selling and contest; will stop at 5:00 p.m. to allow everyone to get ready for a good ole'-fashioned potluck dinner.

For further information, contact Herb Walls, KL7JLF, P.O. Box 1625, Fairbanks, AK 99707; 907-452-5557. □

California

The SATELLITE AMATEUR RADIO CLUB will hold its 1983 Santa Maria Amateur Radio Swap FEST and BBQ at the Union Oil Company New Love Picnic Grounds, south of Santa Maria off U.S. 101 on 19 June, 10:00 a.m. to 4:00 p.m. There will be prizes, contests, and a Santa Maria Style BBQ. Tickets are: adults — $7.50; children 6 to 12 years — $3.50; children under 6 are free. Prize tickets are $1 each. Swap tables are $2.50 for a 2′ × 6′ area. Admission for the Swap FEST is free.

Talk-in on 146.34/94.

For tickets and information, write: Santa Maria Swap FEST, P.O. Box 2616, Orcutt, CA 93455. □

Indiana

The LAKE COUNTY AMATEUR RADIO CLUB will hold its 11th Annual "Dads Day" hamfest, 19 June, at the Lake County Fairgrounds, Industrial Arts Building, in Crown Point, Indiana. The hamfest will be held indoors, 8:00 a.m. till ? 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: Denny Tokarz, KA9FCG, 6930 Lindbergh, Hammond. IN 46323. □

Maryland

The FREDERICK AMATEUR RADIO CLUB will hold its 6th Annual Hamfest on 19 June, at the Frederick Fair Grounds. Admission: $3. YLs and children free. Hours are 8:00 a.m. to 4:00 p.m. Tailgaters, extra $2. Gates open for exhibitors at 8:00 p.m., 18 June, with overnight security provided. Overnight parking welcomed. Exhibitor tables $10; each extra table only $5 each.

For additional info call or write: V.A. Simmons KA3CVD, 7301 Pin Oak Drive, Middletown, MD 21769; phone 301-371-5735. □

Michigan

Better than ever! The Monroe Hamfest, sponsored by the MONROE COUNTY RADIO COMMUNICATIONS ASSOCIATION, will be held on Sunday, 12 June, at the Monroe County Community College, 1555 South Raisinville Road, Monroe.

Doors will open at 6:00 a.m. for exhibitors, 8:00 a.m. for buyers, lookers and the public. Large indoor flea market, outdoor trunk sales, commercial distributors, craft tables and excellent cafeteria food service. Plenty of hard-surfaced parking and many prizes. Advance tickets $2, at the door $3; women and children free.

Talk-in on .52 simplex.

For tickets, table reservations or exhibitor information, contact Lee Keck, KA8LAR, 4773 Blue Bush Rd., Monroe, MI 48161; telephone 313-242-0627. □

New York

The HALL OF SCIENCE AMATEUR RADIO CLUB, annual indoor/outdoor rain-or-shine Hamfest, will be held Sunday, 12 June, 9:00 a.m. to 4:00 p.m., at Municipal Parking Lot, 80-25 126th Street, (one block off Queens Blvd.) Kew Gardens, Queens, New York City. Sellers: donation $3; buyers $2. XYLs and kids free.

Walk/talk-in frequency 146.520.

For information, contact: Tony Russo, WB2OLB, (212) 441-6545; John Powers, KA2AHJ, (212) 847-8007. □

●

The GENESEE RADIO AMATEURS, INC. will present the ARRL-approved 3rd Annual Batavia Hamfest at the Alexander Firemans Grounds, Rt. 98, Alexander, New York (nine miles south of Batavia) on Sunday, 10 July, from 6:00 a.m. to 5:00 p.m. Registration is $2 in advance, $3 at the gate. There are many prizes, a large exhibit area, contests, OM and YL programs, overnight camping, boat anchor auction, and plenty of food and fun for all.

Talk-in to W2RCX on 6.52 or 4.71/5.31.

For advance tickets (checks payable to Batavia Hamfest) or more info, write c/o GRAM, P.O. Box 572, Batavia, NY 14020. □

Ohio

The CHAMPAIGN LOGAN AMATEUR RADIO CLUB, INC. Annual Hamfest and Flea Market will be held Sunday, 12 June, at the Logan County Fairgrounds in Bellefontaine, Ohio. Gates open at 7:00 a.m. EDST. Prize drawings start at 9:00 a.m. and every hour until 3:00 p.m. EDST, with major prizes drawn then. You need not be present to win a major prize.

Tickets are $1.50 in advance, $2 at the door. Tables are $3 in advance. Contact Michael DeVault, KU8I, 7157 Road 158, East Liberty, OH 43319 for information, tickets or tables.

Check-in and information on the CLARC/Hi Point Repeater, W8EBG, 147.60/00. □

●

The 16th Annual GOODYEAR AMATEUR RADIO CLUB "Akron Hamfest" will be held Sunday, 12 June at Wingfoot Lake Park from 10:00 a.m. to 5:00 p.m. Park is near U.S. 224 & S.R. 43, east of Akron. Gate opens at 7:00 a.m. for flea market and exhibitors setup. Family admission $2.50 in advance or $3 at the gate. Flea market $2 per space. Pavilion $5 per table. Free parking and picnic area and refreshments are available.

Mobile check-in on 146.04/64.

For advance tickets and/or reservations send SASE to Don Rodgers, WA8SXJ, 161 S. Hawkins Ave., Akron, OH 44313; (216) 864-3665. □

●

The LANCASTER AND FAIRFIELD COUNTY AMATEUR RADIO CLUB will hold its annual Father's Day Hamfest on Sunday, 19 June. It is in the Fairfield County Fairgrounds from 8:00 a.m. to 4:00 p.m. Admission is $2 in advance and $3 at the gate. Food is available on the grounds. Plenty of free parking. Many tables under cover.

Talk-in on 147.03/63 or 146.52 simplex.

For additional information, write Box #3, Lancaster, OH 43130. □

Oregon

The 8th Annual Lane County Ham Fair will be held 16-17 July, at the Oregon National Guard Armory, 2515 Centennial, Eugene, Oregon. The LANE COUNTY AMATEUR RADIO ASSOCIATION is sponsoring the event.

Doors open at 8:00 a.m. Saturday and Sunday. Drawings will be held all day Saturday. There will also be a 2-meter bunny hunt, computer demonstrations, technical seminars, swap tables, all-day snack bar, free parking for RVs (no hookups) and a potluck supper at 6:00 p.m. on Saturday.

Registration is $4 each; tables are $5 each (maximum of two per registration). Tickets postmarked *BEFORE 1 JULY* receive one *FREE* drawing ticket.

Talk-in on 146.28/88, 147.86/26 and 52-52.

Send registration to treasurer, Tom Temby, WB7WPU, 3227 Crocker Rd., Eugene, OR 97404. □

Pennsylvania

The MURGAS AMATEUR RADIO CLUB (K3YTL) announces the Annual Wilkes-Barre Hamfest, to be held Sunday, 19 June, at the Kingston Armory in Kingston, Pennsylvania.

Doors open at 6:00 a.m. for setup, and at 8:00 a.m. for general admission. Donation is $3; tailgating is $1 extra, per space. XYLs and children under 12 are free. Special drawings, refreshments and free parking are some of the attractions of this 'fest. Commercial power available. Indoor location.

Talk-in on 146.61, 146.88, 224.66 and 146.52 simplex.

For more information, contact: Hamfest Committee, P.O. Box 1094, Wilkes-Barre, PA 18703; (717) 779-3882. □

●

The NITTANY AMATEUR RADIO CLUB, State College, Pennsylvania, will sponsor its annual hamfest — this year including a computer faire — on 9 July, at the Pleasant Gap Firemen's Park, Route 144, Pleasant Gap, Pennsylvania (just off Route 26 east of State College). The gate opens at 8:00 a.m. Tickets are $3; tailgating space $5.

Again, there will be an extensive program of speakers and demonstrations, as well as the flea market area and refreshments. Prizes will include a complete 2-meter mobile/base station. Free parking.

Talk-in on 146.16/76 and 146.25/85.

Further information from Dave Buckwalter, 1635 Circleville Rd., State College, PA 16801. Telephone 814-234-0759. □

Contact Worldradio for hamfest prizes.

Summer SMIRK Party

The Six-Meter International Radio Club announces the 8th Annual Summer SMIRK Party.

Dates/Times: 1900 hours CDT, Friday, 17 June to 1900, 19 June (0000 hours UTC, 17 June to 2400 hours, 19 June).

Operation: Exchange SMIRK number and ARRL section or foreign state, province, prefecture or country. Under SMIRK contest 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 not required.

Scoring: Count 2 points for each SMIRK contact, 1 point for non-SMIRK. Total SMIRK plus total non-SMIRK multiplied by total number of ARRL sections, foreign states, provinces, prefectures or countries worked = claimed score.

Awards: Trophies 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 11 July 1983) to: Spencer F. Ritchie, KC2TX/5, 5122 Sagamore, San Antonio, TX 78242. □

9-Land CW Contest

Sponsored by the Joliet Amateur Radio Society. In this contest, everybody works everybody . . . call CQ9TEST. Stations may be worked only once per band.

Dates and time: 24 hours — 1700Z, Saturday, 18 June to 1700Z, Sunday, 19 June.

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.

Exchanges: Consecutive serial number beginning with 001 and state/Canadian province/DX country.

Scoring: Contacts with 9-Land stations (Illinois, Indiana, Wisconsin) count 2 QSO points each. Contacts with other than 9-Land stations count 1 QSO point each. *Multipliers:* number of states, Canadian 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/Canadian province and DX country.

Reporting: Dupe sheets are required for over 200 contacts. Logs must be postmarked by 23 July 1983. Enclose business-sized SASE for results.

Send logs, dupe sheets and summary sheet to: Paula Franke, WB9TBU, P.O. Box 873, Beecher, IL 60401. □

Thanks to Vermont QSO Party participants

D. Nevin, KK1U

Thanks to all stations that participated in the 1983 Vermont QSO Party. In spite of a solar flare that adversely affected propagation for the first 18 hours of the party, participating Vermont stations made 2,735 contacts. A certificate is awarded to the highest-scoring station in each state/province/country, and to each Vermont station submitting a log. Note that some participants made only two or three contacts with Vermont stations, but received a certificate!

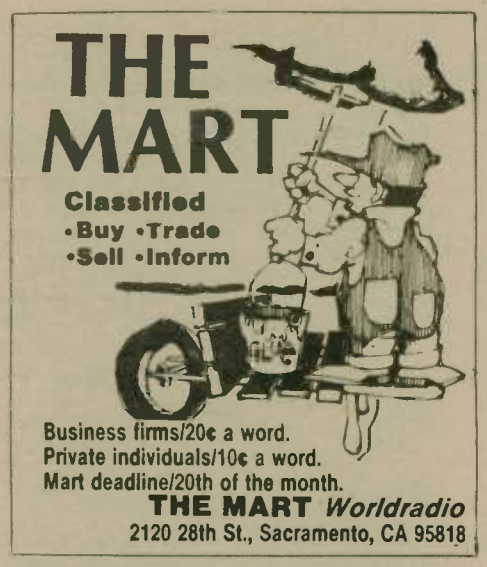
Thank you also for the many constructive comments received from participants. As a result of these comments, next year:

1) Bonus points will be awarded for CW contacts.

2) The Vermont QSO Party will, if possible, again run at the same time as the New Hampshire QSO Party.

3) Solar flares/geomagnetic storms will not be allowed to occur near the contest period.

Vermont stations who failed to see the Vermont QSO Party announcements in all the major publications are invited to send their name/phone number to the party manager. You will be notified of the 1984 Vermont QSO Party by telephone (collect!). □



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WORLD TRAVELERS: Send for your free sample copy of "International Travel News." P.O. Box 160568, Sacamento, CA 95816.

QSLs by W6BA — "Customized" $19.75 per 1000. Star Route 2, Box 241, 29 Palms, CA 92277.

SOLID BRASS BELT BUCKLES. Name or call. One line — name or call — $8.50. Two lines, name and call — $9.50. Add $1.00 postage. S. Slonim, 320 Rose St., Massapequa Park, NY 11762.

TRS-80 AMATEUR RADIO SOFTWARE for Model I/III. Finest selection in the country! Super-Log, Super-Duper, Antenna Anatomy, Morse Code Trainer, etc. Priced $14.95-$24.95. SASE for free color catalog. MICRO-80 INC., 2665 Busby, Oak Harbor WA 98277.

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

MONROVIA BASIC RADIO. Ham & SWL accessories. Hours: TWThF 1900-2200; Sat. 1000-1700. 325 Linwood Ave., Monrovia, CA 91016. (213)359-2986.

ATTN: BAKERSFIELD, CA. MONROVIA BASIC RADIO local phone: 871-1764, eves.

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SET TUBES FOR SWAN350B — $15.00; Swan filter — $15.00; homebrew 40M CW, 30W — $35.00; 120' #12en copper wire — $18.00; 7360 tube — $5.00. W6XM, 528 Colima, La Jolla, CA 92037.

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FOR SALE: Yaesu FT-101E with CW filter — $525.00 firm. Call Mac, W6DNY (707)224-1530.

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ROBOT MODEL 70 slow scan A.T.V. and Robot model 80 camera. Philco solid state tape recorder, A.C.-D.C., includes all mods. This equipment is mint condition, like new. Complete station — $325.00 pp. FL 110 solid state mobile amp., 10 thru 160, 200 watts PEP — $170.00. Prepaid UPS. Chuck K8OBW, 1-216-484-1517.

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