# Worldradio

Year 12, Issue 11 May 1983 • 80¢


## Rains came, and so did hams

Two hundred million dollars worth of damage resulted from the drenching rains (twice normal amounts) which struck Southern California in early March. Amateurs, as always, were needed and did their part.

The American Red Cross in many areas sent out calls for communications assistance. For instance, the San Fernando Valley district required disaster survey help. Bob Bright, W6AQQ, the Disaster Communications Coordinator, promptly found volunteers willing to take time off from work. Len Drayton, WA6LAU — District Emergency Coordinator for the ARRL's Northwest Los Angeles Section — came with his 4-wheel drive vehicle and rigs, as did John Benka, KF6JG.

They previously had been qualified for such work and were dispatched to do "windshield surveys" to determine which neighborhoods were in trouble. They, like those to follow, encountered landslide-blocked roads, streets turned into rivers and houses isolated from help. Knee-deep mud and rain-drenched clothes were common.

They worked so efficiently, officials decided to provide an early morning crash course in Disaster Survey policies for other amateurs. The work is vital, as many governmental agencies rely on such reports for aid to victims, and it must be done within 24 hours of the end of the disaster.

On previous occasions, the amateurs provided only the communications as they accompanied a Red Cross worker who did the official survey. The head of disaster services for the Red Cross in that area is Bill Hopkins, WA6CWB.

Among the valley amateurs participating were Bob Burns, N6ZH; Bill De Armond, W6UEN; Gene Ford, N6ERG: Dennis Smith, KA6GSE; and John Hiltabiddle, K6CTT.

With the basic station on 2-meter simplex, additional coverage was neatly provided by repeaters. Wayne Rankin, WA6MPG, worked repeater-linking magic with his own remote base on 220 MHz and the simplex frequency, along with W6TAM, the club station of California State University at Northridge, courtesy Adam Smollen, KF6ID, and the Agoura "machine" in Ventura County, WR6ADT, which could cover the coastal communities "over the mountain." Help there was given by Bob Mushet, K6JHX.

Amateurs in Huntington Beach (Orange County) California were also kept busy during the March storms. The fact that many of them had homes that were damaged by flooding did not stop them

(*please turn to page 7*)

## 20M phone expanded

On the 31st of March, the Federal Communications Commission adopted the ARRL band plan for 20-meter phone.

Extra Class licensees will have an exclusive 25 kHz sub-band starting at 14.150 MHz. Advanced Class licensees will start at 14.175 MHz, with Advanced and Extra exclusive to 14.225. General Class licensees start at 14.225, to the band edge at 14.350.

NOTE: No effective date has yet been assigned. It is expected, however, that the 1st of May will be the start. Listen to W1AW for latest bulletins.

Also, the FCC issued a Notice of Proposed Rulemaking in the matter of issuing Amateur licenses for a 10-year period instead of the present five-year period. Comments are invited by the FCC. □

## 220 MHz record

A new 220 MHz world record was established on 9 March 1983, between KP4EOR, located near San Juan, and LU7DJZ, located in Buenos Aires. The 3,670-mile QSO was made via transequatorial propagation. KP4EOR used both CW and SSB, while LU7DJZ used just CW. The old distance record was established in June 1959, between W6NLZ and KH6UK, covering a distance of 2,540 miles, from California to Hawaii.

Also, a new over-land record was set in California, on 1296 MHz. Lem Moeschler, W6KGS, in Auburn (grid CM98), worked Chip Angle, N6CA, in Lomita (grid DM03). The distance covered in the exchange between Northern and Southern California was 402 miles; both were on SSB. N6CA was running about 250 watts at the antenna.

—*West Coast VHFer* □

*Amateurs summoned in emergency*

## When creeks became rivers

**Walter Read, W6ASH**
**Santa Clara Valley DEC**

During the latter part of January 1983, the San Francisco Bay area (California) was drenched with continuing rainstorms which completely saturated the ground. On the 25th and 26th, downpours created heavy runoff making normal creeks into deep, wide rivers. Flooding of roads and homes occurred throughout the entire area. Amateurs were called upon to monitor water levels at vital points.

The flooding situation became acute on 26 January. The city of Palo Alto asked the Southern Peninsula Emergency Communication System (SPECS) to set up a command post at the city Emergency Operation Center (EOC) and to have amateur operators regularly report conditions at assigned locations. Simultaneously, the Palo Alto Red Cross Chapter established a shelter at Jordan Middle School for evacuees from the low-lying areas. Five amateurs assisted in this operation. After midnight the storm subsided, and when the water levels went down the evacuees returned to their homes. Operation at the shelter and the EOC was secured at 2:00 a.m. After this, calls had to be made to those who had volunteered to keep the operation going during the night and the next day.

Thirty-five amateurs were involved in monitoring creeks, operating the shelter

(*please turn to page 7*)

**Walter Read, W6ASH, Santa Clara Valley District Emergency Coordinator**

## European beacon joins network

Martti Laine, OH2BH, announces that OH2B, first European beacon station in the Northern California DX Foundation worldwide network, became operational on 1 March 1983. OH2B is now being heard regularly on the West Coast on both long and short paths.

The station is installed at Helsinki Technical University in Espoo and is managed by the Finnish Radio Amateur League with Arto Harjula, OH6GJ, responsible for its operation and Martti Laine, OH2BH, acting in an administrative capacity.

With this new European addition, the NCDXF beacon transmitting sequence on 14.1 MHz will now be: 4U1UN/B, W6WX, KH6O, JA2IGY (early April), 4X6TU, OH2B, (blank) and ZS6DN. 4U1UN/B starts the sequence at 00:00 with each station transmitting four, 9-second dashes at power levels decreasing from 100 to 0.1 watts. The sequence is repeated at 10-minute intervals.

The Northern California DX Foundation welcomes reports which should be directed to Al Lotz, W6RQ, 46 Cragmont Ave., San Francisco, CA 94116 USA. □

## Teleconference Net

"Antennas and Antenna Systems, Where Is The State-of-the-Art Going" will be the subject of the Teleconference Radio Net (TRN) to be aired on 2 June, 7:30 p.m. CDT, on nearly 100 Amateur Radio repeaters and HF stations across North America. More than 75,000 amateurs are expected to be tuned into the net, and many of them will have the opportunity to talk directly to the speaker.

The speaker will be Joe Reisert, W1JR, a principal engineer at Wang Laboratories and author of many articles on EME, UHF, antenna design and TVI.

An added feature of the 2 June net will be a bulletin direct from AMSAT officials on the status of the Phase IIIB launch scheduled for the following day.

Net control station for the June net will be Dave Meldrum, KA1MI. Lou Appel, KØIUQ, will be the teleconference bridge engineer.

The Teleconference Radio Net is a service of the Honeywell Amateur Radio Clubs of Minneapolis, Billerica and Phoenix. Further information and requests to link into the net should be sent to Rick Whiting, WØTN, Net Manager at 4749 Diane Dr., Minnetonka, MN 55343 (SASE please). □

TM
# Worldradio

is published monthly by
Worldradio, Inc.
Offices at 2120 28th Street
Sacramento, CA 95818 USA
Telephone: (916) 457-3655

**STAFF**

Editor and Publisher — ARMOND NOBLE, N6WR
Managing Editor — CHRIS WILSON, KA6TAL
Associate Editor — NORM BROOKS, K6FO
Advertising Director — HELEN NOBLE
Graphics Director — DIANNE DUNNING
Circulation — KAYE SCHWARTZ

May 1983 Vol. 12, No. 11

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

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

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

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

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

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

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

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

Second-class postage paid at Sacramento, CA.


## ARRL Convention

The date and place for the ARRL's National Convention was recently announced by Henry Frankel, WB2DQP, spokesman for that organization's Hudson Division.

"The 1984 National Convention will be hosted by the Hudson Division at the New York Statler, on the weekend of 20-22 July," stated Frankel.

The popular event, which usually attracts amateurs from every one of the 50 United States, all Canadian provinces and many countries abroad, is scheduled to feature numerous activities including technical and operating seminars, social events, banquets, DX meetings, manufacturers' displays showing the latest equipment designs, and unlimited activities for non-amateur spouses.

The New York Statler is situated in the heart of the city, which provides visiting amateurs and their families easy access to its many cultural attractions. Broadway's famous theatre district, the Empire State Building, the World Trade Center's twin towers, the bohemian Greenwich Village artists' colony, plus opera houses, museums and numerous restaurants featuring cuisine from nearly every nation, are all within minutes of the hotel via taxi, bus or subway. The hotel itself offers every amenity of a cosmopolitan inn, including dining rooms, conference rooms, lounges and a Grand Ballroom which can accommodate up to 2,000 people.

Detailed information and registration forms may be obtained by writing to Mike Troy, AJ1J, R.R. 4-Box 19C, Pound Ridge, NY 10576, USA. □

●●●

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



## Open House at W6AM

The world-famous ham installation of champ DXer Don Wallace, W6AM, will be open to visitors on 12 June, from 1:00 to 5:00 p.m.

Traditionally, Don welcomes visitors each year to inspect his 100-foot-long ham shack with its myriad stations and rhombics on many telephone poles stretched over a picturesque site in view of the ocean below.

Spouses are welcome, too. The Palos Verdes (California) Amateur Club is handling the parking and their XYLs are assisting at the coffee table.

The Rhombic Farm is reached in the Los Angeles area by driving south on the Harbor Freeway to Anaheim Street. Turn right (west) one mile to the Palos Verdes hills (five corners) and then bear left up the hill on Palos Verdes Drive North, a distance of 3.8 miles to Hawthorne Boulevard. Turn left, up the hill, two miles past the Peninsula Shopping Center to Highridge Road. Go left three-quarters of a mile to 28503 Highridge Road, Rancho Palos Verdes. □



## South Coast ARS

A small group of dedicated amateurs has organized the South Coast Amateur Radio Service. The service operates daily from 0800-1000 and 1300-1500 (local time) (EST) 7.251 MHz ± QRM. The Service is patterned after the East Coast Amateur Radio Service, and is designed to serve the 4th call area.

Priority is given to mobile stations. This is a great place to meet your friends and then move off frequency for traffic handling or just a nice ragchew.
— *Sarasota ARA, FL* □

## 6-meter beacon

Colorado's first and only 6-meter beacon began operation on 3 January when the new beacon regulations went into effect. The operators are Glenn (W0IJR) and Karen (KA0CDN) Schultz of Aurora, Colorado.

The beacon operates unattended on 50.065 MHz from 1300Z until 0300Z seven days a week. The transmitter is an ICOM 551D, controlled by a Morsematic MM-1 keyer. The transmitter output is 50 watts to a double ring halo antenna at 55 feet. Reception reports would be appreciated.

Six-meter operators are reminded that unattended beacons are limited to the frequencies between 50.060 and 50.080 MHz. Don't forget to scan that portion of the band for these helpful propagation indicators. □

## QSL manager

Dieter Konrad, OE1DYL, of Salzburg, Austria is the QSL manager for several stations, listed here: VP2ARS (11-17 April 1981), OE2VEL/HB0, OE2VEL/KH6, OE2VEL/KH8, OE6BVG/KH6, OE6BVG/KS6, A35EL, A35XX, 5W1DD, 5W1DE, 5W1DO, C21NI (19-23 September 1981), ZK2EL, ZK2TA, T30BF, T30BG, T2VEL, T2ETA, A22EL, CR9EL, OE1ETA/KH6, OE1ETA/KH8, OE2VEL/ZS6, OE2VEL/ZS3, OE2VEL/3D6, OE1ETA/KH6 and OE1ETA/KH8.

Dieter's address is: Bessarabierstr. 39, A-5020 Salzburg, AUSTRIA, EUROPE.

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

## Deadlines extended

The FCC released an order granting the ARRL's request to extend the comment deadlines for the FCC no-code proposal, PR Docket No. 83-28. New comment deadline is 28 June; reply comments are due by 28 July.
— *The ARRL Letter* □

## DX net list

In January 1982, the first issue of *DX Nets Around the World* was published. Now there is a second edition, with a new list of DX nets around the world. *DX Nets Around the World No. 2* may be ordered with SAE from Dieter Konrad, OE2DYL, Bessarabierstr. 39, A-5020 Salzburg, AUSTRIA, EUROPE. The price is 4 IRCs (Europe), 6 IRCs (overseas). □

## CONTENTS

**FEATURES**



**COLUMNS**

# No code

*Worldradio has already made its position on the proposed no code license quite clear. On the 24th of March, 1983 we received what is printed below. If ever an argument has been made in favor of keeping the code requirement, this is it:*

Comments of the Albatross
on the Ham No Code Rule #83-28
To The Commissioners:

We the members of Albatross Inc., a San Diego, California Citizens Radio Club, have the following ideas on the no-code ham license proposal.

1) We favor a no-code Tech license rather than that digital thing. People want to talk, not play games with Pac Man toys.

2) Any no-code ham license must include the HF bands. In case you don't know what those are, we are talking about the bands under 11-meter CB that hams have. We want special no-code sections for our own use.

3) Since it's a no-code ham license only, no-code hams should give the test. Till some come along it should be CB operators who test for no code ham licenses.

4) All CB operators must be given a no-code ham license without taking any test. This includes AMers and SSBers who operate anywhere from 26 to 28 megacyles wether (sic) they have licenses or not. They already have the radios, so they are halfway there already.

5) The FCC should keep all coded hams away from the new no-code hams by simply giving the no-code hams half the bands the coded hams now have.

6. The test for the no-code ham license should be 10 questions on how a radio works and nothing else. If a guy has a radio he will know how it works and can tell you that.

7) The no-code ham license should be perminent (sic).

Albatross Inc. is proud to do what it can to make the new no-code ham license even bigger than CB. We pledge our support to the American No Code Alliance to get more people on the two-way.

Yours truly,
RAYMOND B. CORMIER
President, Albatross #19 □

# Boredom leads to excitement

Bored with the final episode of *M*A*S*H* (28 February), James Porter, KC5TF, sauntered into his kitchen and began fiddling with his shortwave radio transmitter. What he stumbled across became more exciting than any television drama.

For the next four-and-a-half hours — long after *M*A*S*H* and the late movies had finished — Porter talked a stranger, stranded nearly 7,000 miles away, to safety.

As Porter turned the radio knob, he heard a loud, clear mayday signal. The distress call was from a man stranded on a 38-foot yacht about 15 miles off the coast of the Fiji Islands in the South Pacific.

"I was just tuning around, listening to different places. I came upon this guy calling mayday for anybody for assistance. He was in 65-knot winds and had 15 feet of visibility," Porter said.

"I talked with him for more than four hours — until 2:00 in the morning," he said. "I just had a glass of ice water there with me. I was nervous. I was really responsible for his life at that time, and it was really nerve-wracking."

Porter, who is a barber and hairstylist, said the man's name was Steve Newman. He was on his 38-foot yacht, *Athena* when a storm developed. Newman had tried without success to secure a sea anchor to stabilize his craft, but the lines had fouled around the propellers. He had no means of navigation, and nearly a foot of ocean water already inside was taxing his bilge pumps.

Porter, who has been an Amateur Radio operator for five years, contacted the Galveston station of the U.S. Coast Guard. The Coast Guard, which operates on a different frequency, could not pick up Newman's signal.

So, until the early morning hours, Porter sat at his homemade paneled cabinet, acting as a mediator between the Coast Guard and Newman. The Coast Guard radioed the information in a kind of relay from one Coast Guard station to another, until the nearest outlet — in New Zealand — was able to make contact with Porter and Newman.

"The Coast Guard called me back four times that night to make sure it wasn't a hoax," Porter said. "I just tried to encourage him (Newman) mostly. I don't even know what age he was. I tried to keep it light. I kept giving him the latest weather reports. I told him to stay with the boat. And I just tried to keep his mind off of what was happening."

Porter said that near the end of the radio conversation, Newman said he thought that his boat had washed near the shore of an island.

"When I left him, he was talking with two people from New Zealand," Porter said "Apparently, he did make it up on shore."

But it appears that Porter dialed into a kind of mystery. He does not know for sure what happened to Newman and neither does the U.S. Coast Guard, according to Martin Taylor, search and resuce officer who was on duty during the incident.

"We'll probably never know for sure what finally happened," he said. "We seldom find out about it. I do know that he (Newman) was near an air station on a reef and that he could see the shoreline." Taylor said. "A vessel was en route to pick him up.

"I'd say there's a 90 percent chance he made it. Unless he got out and a palm tree fell and hit him on the head."

— *Dayton Daily News, contributed by N8ETD* □

# Ham shack timepiece rises to new heights

Riding aloft, space shuttle Challenger astronauts Paul Weitz, Karol Bobko, Story Musgrave and Donald Peterson kept track of the time with a slightly modified version of a clock found in many a ham shack. The clock, Model 173B, was made by Benjamin Michael Industries. □

# Correction

Yardley Beers, W0JF, author of the article, "10 MHz — something new, something old," page 20 of our April issue, has notified us that the *Mile Hi DX Newsletter*, — not the Rocky Mountain VHF Society — should have received the credit for originally running the article. □

# Armed Forces Day — 1983

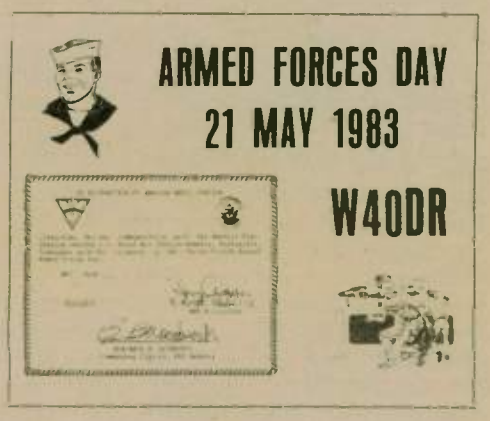
In recognition of the 34th Annual Armed Forces Day celebration, Amateur Radio Station W4ODR, located aboard Naval Air Station Memphis, Millington, Tennessee, will be operating on Saturday, 21 May from 1400Z to 2200Z. Plans call for operation on 7.230 (±10 kHz), 14.280 (±10 kHz) and 21.370 (±10 kHz). CW frequency will be 21.145. 146.52 will be the 2M frequency. It is hoped that operation will be continuous on all bands, but check all frequencies to be sure. Special certificates and QSL cards will be available to those who work W4ODR. QSL to Amateur Radio Station W4ODR, P.O. Box 54278, Millington, TN 38054. A brief description of the Navy Memphis complex follows.

The 3,400 acre Navy Memphis complex is located 13 miles north of Memphis, Tennessee and five miles east of the Mississippi River. NAS Memphis is the home of the Chief of Naval Technical Training (CNTECHTRA) and the Naval Air Technical Training Center (NATTC).

CNTECHTRA administers the technical training program for the entire U.S. Navy. Training conducted under the auspices of CNTECHTRA begins with the basic training for all Navy recruits and officer candidates. It continues through various levels of technical skills training and includes instruction for the highly advanced technicians who maintain and operate the extremely technical and sensitive devices found on the Navy's aircraft, ships and submarines.

Over 3,000 Navy courses of instruction are conducted throughout the command's network of 58 schoolhouses, located at 27 different installations, stretching from the East Coast to the West Coast, Great Lakes to the Gulf and across the Pacific to Hawaii. The coordination, supervision, planning research and guidance for these courses take place at the Millington-based headquarters.

NATTC is the largest single command in the Navy Memphis complex with over 40 different courses of instruction. It stands some 10,000 strong, including students, instructors and support personnel. The training center's mission is to train selected Navy and Marine aviation personnel in aeronautical technical phases of naval aviation and other related subjects as directed by the Chief of Naval Operations. □

# Pitcairn nosy news

### Dr. Chas. "Mert" Moser, W6HS

In past issues of **Worldradio** I have chronicled some of the happenings, the activities, and the history of the Pitcairn people. However, changes are taking place on this remote island, and I hope to bring them to you. I might have to go again to Pitcairn in order to get first-hand information for you readers of **Worldradio**. Thanks to your contributions to the generator fuel fund, Tom Christian, VR6TC keeps the DXers happy with his Tuesday and Friday schedules, 21350 and 29950 kHz, propagation permitting.

### New amateur on Pitcairn

Kari Young, VR6KY was a YL commercial ship radio operator on one of the Norwegian *ESSO* ships which periodically stopped at Pitcairn Island. She and her shipmates were welcome visitors to the island, often bringing much-needed supplies, mail and providing onward transportation to a Pitcairner needing medical attention. Kari and a Pitcairner, Brian Young, hit it off from their first meeting, and it came to pass that Kari left the ship and married Brian at Christmastime, 1979.

Karl was successful in getting her amateur license and call. VR6KY will be the second station for we DX hounds to work. In September 1981, an *ESSO* ship enroute from Panama to New Zealand arrived at Pitcairn, bringing flour and yeast from England, and taking southbound mail. Brian, Kari and their new son Timothy left Pitcairn on a three-month journey to visit Norway to spend Christmas with Kari's family. She and Brian are now back on Pitcairn, increasing Amateur Radio operators by 100 percent.

### Birthdays of patriarchs

Some of the amateur fraternity may remember Andy Young, who was Pitcairn's early amateur operator. Andy had the call VR6AY for many years, but is now inactive. Andy celebrated his 82nd birthday last April. Another Pitcairner — Albert Young, a bachelor — also celebrated his 82nd birthday. Albert is quite deaf and in poor health.

### In memory

Oscar Clark — postmaster on Pitcairn from 1960 until 1978, at which time he left the island in December with his wife Norma, who needed medical treatment in New Zealand. An extract from his last letter dated 11 June 1981 read: "I'm writing this letter in a hospital awaiting to go on the operating table. They will take out a quarter of my lung, probably cancer." Oscar died of cancer in the early hours on 11 August 1981, at the age of 54.

Elwyn Christian — another great-great-great grandson of Fletcher Christian of *HMS Bounty*. Elwyn grew to be a clever and talented man. During the late '20s, when a group of young people were learning to play various types of musical instruments, Elwyn made his own violin out of local wood. Years later, an American doctor visited the island for some time. Elwyn was selected to be medically trained and was recognized locally as the "Island's Doctor," and faithfully carried out the medical work until an officially Registered Nurse named Evelyn Totenhoffer arrived in 1944 to take over the medical responsibilities.

Elwyn and Evelyn were married in 1947. Elwyn also took a short course in dentistry in Fiji, thus enabling him to do fillings, extractions and even made a satisfactory set of dentures. Elwyn died at home late in the evening of 27 September 1981.

**Dr. Charles "Mert" Moser, W6HS at Tom Christian, VR6TC's ham shack.**

### Pitcairn school

The school is beautifully located on an acreage of the foothills leading to Fletcher's Cave. The facility is built on three levels. At the top is the teacher's house. Below is the school plant. Because of termite damage, most of the structure has been rebuilt of treated lumber. The outside is painted a soft yellow, trimmed in brown. The building is large by Pitcairn standards, having been designed to adequately house 30 students.

In addition to the classroom area, there is a large manual arts building. A long porch provides play space on rainy days. The classroom is bright and cheery, with plenty of cupboard space. The library has some 1,300 titles plus reference books, plus a 16mm projector, films and film strips. Included in equipment is a spirit duplicator, an electric mimeograph and a hand-operated machine.

There is a good display of artwork done by the students. A mini-store has been set up, and students take turns acting as clerk. Play money is used. There are nine elementary children plus two teenagers doing correspondence work under supervision. The school year is composed of 380 half-days. There are no uniforms.

### A fishy tail

Fishing and fish play a large part in the life and diet of Pitcairn people. Rock fishing is perhaps the most regular form of fishing. As sea conditions are not always conducive to boat fishing, island folk use their knowledge to advantage in seeking a lee from the wind to find "good surf." Due to the rugged nature of Pitcairn's coastline, it is essential for the rock fisherperson to have the stamina of a colt, the agility of a monkey, the sure-footedness of a mountain goat and the daring of a high trapeze artist.

Fishing rods are almost non-existent, as the local folk favor hand-thrown nylon lines, with a light sinker or weight. Crab, catfish, octopus, and even lobster are the most common forms of bait. For most rock fishing, small-sized hooks are used. These are more suited for holding together the fine grained flesh of the crab and crayfish. Also, the small hook is better for capturing the smaller-mouthed fish. Although octopus is more secure on the barb, this bait does not attract the fish that the islanders like to eat most. If octopus is used, it is often rubbed with crab meat. Perhaps the most sought-after fish from the rocks, are the nanwee and whitefish. The nanwee is extremely popular with Pitcairners. While the small and bony whitefish makes good eating, it also makes a good source of food for the pet frigate birds.

**Tom Christian, VR6TC looks over Bounty Bay, with the *Sagafjord* at anchor.**

Despite the fact that most families have their own fishing canoes and small outboard motors, many still enjoy the fun of a public fishing day. On these special days, the longboats are used for all those wishing to go fishing. A long ring on the telephone system, particularly on a calm sunny day, often announces such an activity. After the boats have been launched, the first concern of a public fishing day is capturing bait, so the longboats are brought close in to the shoreline. The younger brigade — using flippers, masks and snorkels — dive over the side with their spears to capture crabs. When sea conditions are right, the two longboats normally separate after the bait operation. One boat will fish far out with "long lines," while the other stays close in. Fishing with long lines, the islanders fish for red fish such as "fafiya" and other deep water varieties such as cod. The boat closer to shore will catch nanwee, red snapper, lye, cod and members of the parrot fish family.

At the end of the fishing day, catches from both boats are pooled together for the purpose of a "share out." Shares are made out for each of the families represented on the day. The elderly and those unable to fish are not forgotten.

Several years ago, during one of my weekly schedules with Pitcairn, I asked Tom's niece Clarice Brown, who is an avid fisherperson, what she used for bait. She said she just dived near the rocks and came up with some lobsters, which she cut up for bait. When I told her what

(*please turn to page 35*)

# The inside story on TEN-TEC's CORSAIR.

**All solid-state** broadband design.

**All 9 HF bands**—160-10M. All bands ready to go.

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

**Triple Conversion Receiver** with switchable RF Preamp. for sensitivity of 0.25 $\mu$V on all bands with dynamic range of 90 dB or better. 3rd order intercept +15 dBm.

**Variable Bandwidth *plus* Passband Tuning.** Narrow the bandwidth or move the passband anywhere in 2.4 kHz bandwidth. Standard 12 pole filter; optional filter converts to 16 pole performance.

**Dual-range, triple-mode, Offset Tuning** receiver, transmitter, or both—±1 kHz or ±4 kHz.

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

**Speech Processor**—clipper/compressor design with up to 10 dB processing.

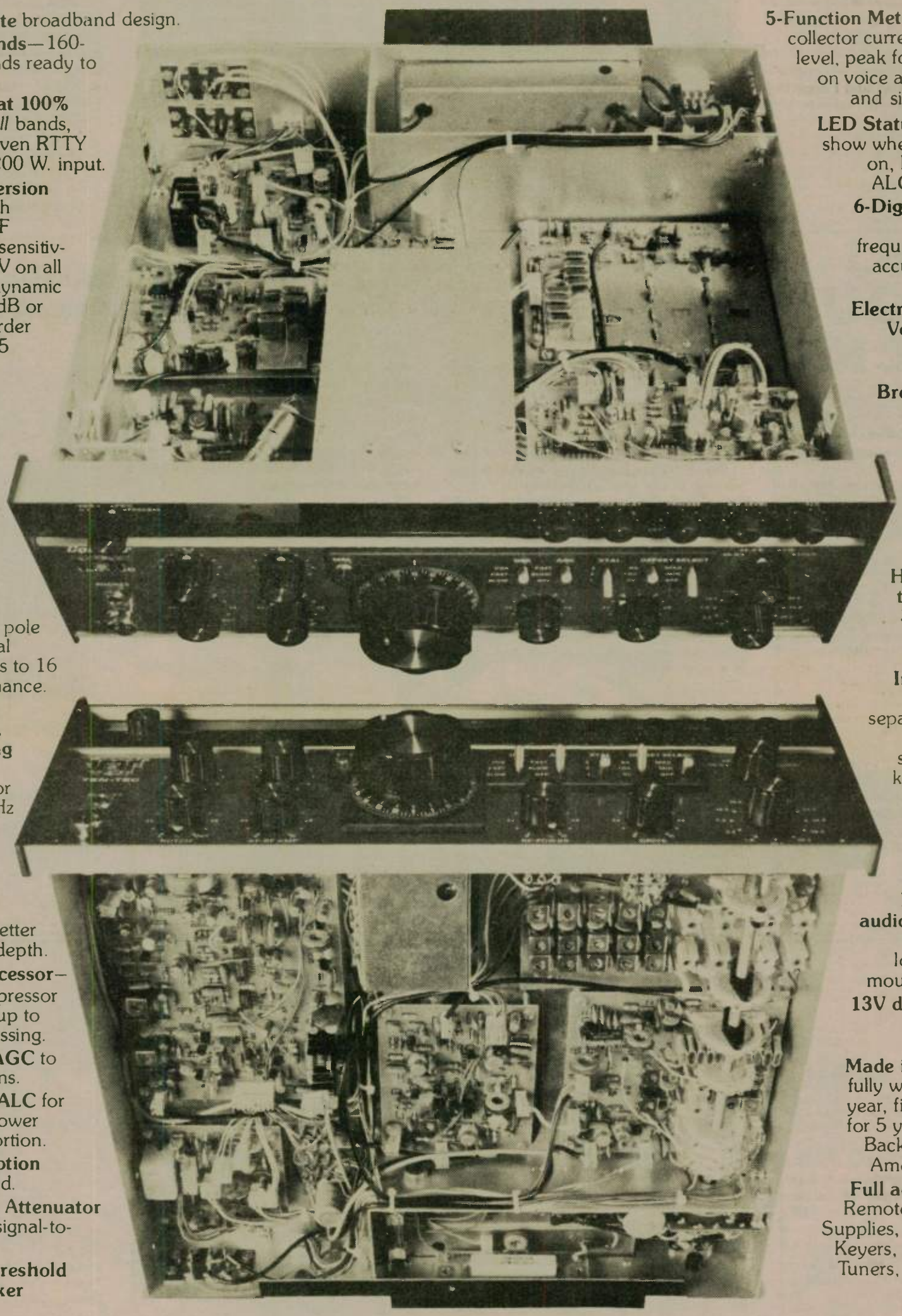
**Fast/Slow AGC** to suit conditions.

**Adjustable ALC** for maximum power without distortion.

**WWV Reception** 10 MHz band.

**Headphone Attenuator** to enhance signal-to-noise ratio.

**Variable Threshold Noise Blanker**



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

**LED Status Indicators** show when RF amp. is on, Processor on, ALC, and Offset.

**6-Digit Readout**—with LSI true frequency counter, accurate on both sidebands.

**Electret Polarizing Voltage** at Mic. Jack.

**Full or Semi Break-in** for cw.

**CW Signal Spotter**—easier to use, just match tones instead of zerobeat.

**High Articulation Keying**—3.5 msec rise-decay time.

**Complete Interfacing** for accessories—separate rec. ant., QSK linear, separate VFO, keyer, speaker, ant. relay, RTTY, Phone Patch, remote band switching.

**Less than 2% audio distortion**—compression loaded bottom mounted speaker.

**13V dc design**—for easy mobile operation.

**Made in the USA**—fully warranted for 1 year, final transistors for 5 years, pro rata. Backed by reliable American service.

**Full accessory line:** Remote VFO, Power Supplies, Microphones, Keyers, Antennas and Tuners, SSB and CW Filters.

**CORSAIR**—a new level of achievement in amateur radio design, with every feature for effortless, effective operation. Try CORSAIR at your TEN-TEC dealer—you'll discover what easy operating is all about. And what a remarkable value CORSAIR represents.

See your TEN-TEC dealer or write for full information.

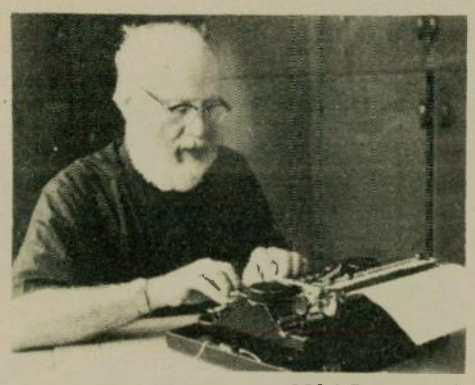
**TEN-TEC, INC.**
SEVIERVILLE, TENNESSEE 37862

# Morse from your typewriter: Part I

**Rev. David Ryan, N6AI**

Typist records message while sending perfect code to radio. Hidden under a 50-year-old Underwood portable, a 10″ × 4″ panel of CMOS chips is bolted to the key rack. From an earplug, coded greetings tickled the amateurs at the ARRL San Diego Convention registration desk, as I typed their calls last June.

A 9-volt transistor battery cemented to a side of the machine will drive a loud speaker for weeks of code practice. Characters repeat as long as a key is down, at speeds adjustable from 4 to 40 wpm.

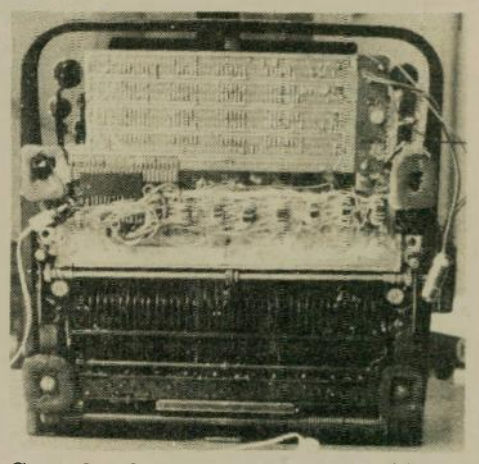


**Padre David Ryan, N6AI records hard-copy of CW. At last unashamed to work the faster boys, he reads type easily, rather than guess handwriting.**

### Circuit description

A bucket-brigade of nine 4013 flip-flops actuates the clock (U2 of 4011) and inhibits other signals from the keyboard until all buckets are empty, and positive voltage is restored through the 33K RC .01mF net.

The SCRectifier (a HEP 1001) features the character-repeating action by sending a shock to the toroid array. A pressed key grounds one of the programmed wires, so this shock wave induces a spike in the 10-turn secondary winding of whatever toroid has this wire passing through its hole. The Amidon ferrite toroid (FT-50-75) concentrates its magnetic field in this hole, so the half-turn program wire is the primary of a transformer. Almost 20 volts from the 10-turn secondary sets its flip-flop ON (at the next clock pulse) and Q hands the HI state onto the next chip. With each clock pulse, the HI signal moves one chip toward the final chip (U11), which interprets the pulse in pin Q as LO Data.



**Completely portable, the Morse-coded typewriter carries a 9-volt battery (and a spare) cemented to the right side. A micro-switch, operated by the right-handed shift-lever is bolted to the IC board. "The works" fits within the case, clearing if a ⅛″ pad is glued to both front feet of the case.**

An LO state on the inputs of 4001 pin 8 or 9, and 12 or 13 produces sound as dits. If U3 pin 11 turns HI, the clock will cause the space between two dits to fill in the sound to firm a smooth dah. When no data is present, U2 pin 4 output is LO and the clock stops.

*(Continued next month)* □

## Region 6 outstanding member

During the recent MARS Conference at Phoenix, the Region officials unanimously voted Allen C. Mills, AFA6PD/AFF6D, Deputy Communications Manager as the Region 6 outstanding member of the year. His membership in MARS goes back to 1950. In 1955, as an Army MARS member and Company Commander at the Yuba City, California National Guard unit, he discovered the value of MARS during the devastating Yuba City flood. He transferred to Air Force MARS in 1960 and during the last 22 years has served as NCS for HF, VHF and RATT nets. For the past four years, he also served as Region Deputy Communications Manager.

Born in Marysville, California, he received his Amateur Radio license in 1934. After high school, he started at Yuba College. In 1942 he was inducted into the Army, with active duty in the African and European theaters. Now, for the past 35 years, PG&E has been his employer. □

## Discover 40 meters

**Bob McGarvey, WB2EVF**

Forty meters is home to three of the most active and most useful services available on Amateur Radio: the East Coast Amateur Radio Service, at 7.255 MHz; MIDCars at 7.258; and the West Coast Amateur Radio Service at 7.255 blanket most of the United States and southern Canada.

The services run all day, every day, from morning through the wipeout by international broadcast stations running high power. The primary mission is to provide information. If you want to get a road condition report, a weather report or a signal report, the CARS frequencies are the ones to use.

Although membership is welcomed, you do not have to be a member to avail yourself of the facilities.

A function often overlooked by those who don't like net operations is the saving in frequencies made possible by the services. They are places to meet, filling the roles of calling frequencies and concentrating traffic instead of scattering it all over the band.

Thousands of amateurs have equipped themselves with mobile 40-meter transceivers just to take advantage of the emergency services made possible by the three organizations. Just give a listen or check in, if that's your pleasure. Information on how to join will be given — all you have to do is ask for it.

— *The Home News, N.J* □

## Club sends a resolution to FCC

**Armond Brattland, K6EA**

I was in CW communication, at about 20 wpm on 6 March, with an amateur who at one point stressed he would never be able to learn to use, nor would he ever, use code as a means of communication. However, his views about such matter, with a little more practice, have taken a full 180 degree turn, and he looks forward to being able to operate at much higher speeds accurately.

During our QSO, he transmitted a resolution just voted on at the 1 March 1983 meeting of the Bemidji, Minnesota Amateur Radio Club, which will receive the full membership vote of such club on 5 April. In the meantime, on account of the urgency and importance of defeating the efforts of the FCC to put across a no-code amateur license, such radio club is making their resolution known by mailing it to every Amateur Radio Club in the United States.

The punch lines in the resolution of such radio club are: Be it resolved that if the FCC allows the issuance of a no-code license, within the operating frequencies of the present established bands, this club will not: 1) recognize the holders of such a license; 2) will not encourage applications for such a license; 3) will not aid or help train for such a license; and 4) will not examine for such a license.

The members of such Amateur Radio club express a hope that other radio clubs take similar action and make it known to the FCC. If anyone wishes to correspond with such club, address your letters to: Bemidji Amateur Radio Club, 812 Donald Ave., Bemidji, MN 56601. □

## Creeks

*(continued from page 1)*

and the EOC. The area covered included Mountain View, Los Altos, Los Altos Hills and Palo Alto. Contact was maintained with the Sunnyvale EOC, the San Mateo Red Cross, the San Francisco Red Cross and the Santa Clara County Office of Emergency Services (OES).

Ninety-eight percent of the operators in this event were members of SPECS. The SPECS repeater, W6ASH/R on 145.27 MHz, was used for mobilization, control and liaison with county OES. The San Mateo County Red Cross was given permission to move their evacuees to our shelter but fortunately they had no need to do so. The city government was impressed and grateful for our assistance and commended us on our professional operation.

SPECS has been in operation for over 25 years and has grown by leaps and bounds in the past two years from 50 members to 200. The Palo Alto Red Cross has encouraged members to take advanced Red Cross courses so that they can serve double duty. Thirty have qualified for official "Damage Assessment" and at least 15 are qualified "Shelter Managers." Nine of the 10 people doing damage assessment in Alviso in April were SPECS members.

The most outstanding member of SPECS is Ted Harris, W8RPA. He was called on to manage a Shelter for the Red Cross in Lompico, north of Santa Cruz, in the big flood there in 1982. During this last flood he was called by Red Cross and FEMA to assist in Coastside damage assessment. Ted is one of the main instructors in Red Cross "Damage Assessment" and in "Shelter Management" courses. □

## Rains

*(continued from page 1)*

from assisting with communications.

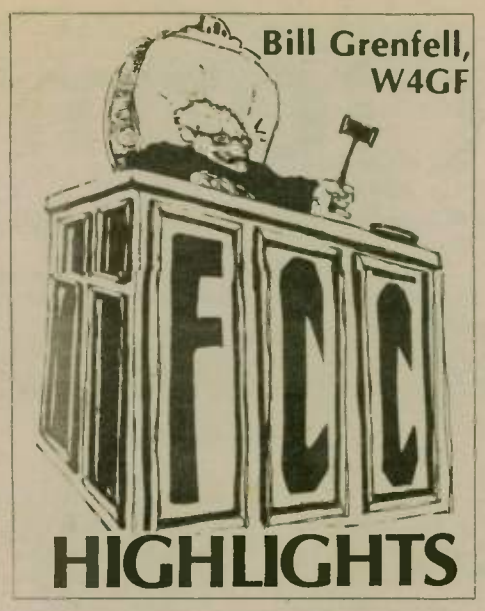
About 30 amateurs volunteered their services in Huntington Beach when the storm hit on 1 March. They spent the afternoon and evening reporting on breaks in the levees, the water level in the flood control channels, erosion, fallen trees and, when needed, ordering more sandbags and even food for the rain-drenched crews.

Their efforts freed city manpower and kept police and fire radio frequencies open for communicating real emergencies, city officials said.

Those who participated in the Huntington Beach area included: Ed Ireland, WA6TLE, RACES dispatcher, Celia Ireland, WB6SZN; Fred Parsons, KA6TNG; Steve Hacker, WD6AQK; Orv Owen, W6BSL; Will Courtney, N6CRH; Mark Oppenheim, KD6KQ; Bob Hoey, KA6SAA; Ron Fehr, N6HKY; Sherry Ward, KA6NXF; Steve Owen, KA6SAT; Joe Cooper, N6HIR: Betty Macmillan, KA6IIT: Frank KA6YGW; Rich WD6EDP; Jack Hannan, KA6LPO; Brian Garland, WA6BDT; Mike Springer, K6TWK; Roy Young, KA6NKS; Al Watkins, N6GQK; Rich Cominolo, N6CIJ; Dave Nasby, N6EQI; Steve Riddle, KA6GVV; Jim Samuelson, WD6CIS: Tim Sawyer, WD6AWP; and Martin Lipman, K6ISN.

An estimated 75 to 100 amateurs volunteered their services throughout Orange County.

— *Information from Lenore Jensen, W6NAZ; Celia Ireland, WB6SZN; Los Angeles Times* □




The ARRL has asked FCC to retain the requirement that U.S. amateur station operators log international third-party message traffic. This was in response to FCC's Docket 82-726 Notice of Proposed Rulemaking in which it proposed to delete most of the routine logging requirements from the Amateur Rules. The League noted the international prohibition on the exchange of third-party communications by amateur stations and the provision for exception to the prohibition by special agreement between concerned governments. "Keeping this logging requirement would 'insure operator awareness of the international treaty requirements' and permit the Commission to maintain control over such operations" the League stated as a basis for its request.

•

Bob Haviland, W4MB, has petitioned FCC to reconsider its denial of his petition for immediate allocation of the 18 and 14 MHz bands to the Amateur Radio Service on a shared, secondary basis. His original petition was filed 22 November 1982. In its 12/22/82 dismissal, FCC cited current assignments and incomplete plans to accommodate them elsewhere as reasons why these new bands cannot be made available to amateurs at this time.

As a result of the 1979 World Administrative Radio Conference, two 100kc wide bands were allocated for exclusive use by the Amateur Radio Service. Presently, there are four non-government and 33 government assignments in the 18 MHz band and two non-government and 10 government assignments in the 24 MHz band.

•

An Order to suspend and revoke the amateur operator and station licenses of David Hildebrand for his use of indecent language via his station (N6BHU) was dismissed by the FCC review board on 20 January 1983. The Commission's Private Radio Bureau applied for review by the FCC of the Review Board's decision. The Board's action had overturned an Initial Decision of an Administrative Law Judge which revoked and suspended the licenses for willful violation of Section 97.119 of FCC's Amateur Radio Service Rules. 97.119 provides that "No licensed radio operator or other person shall transmit communications containing obscene, indecent or profane words, language or meaning."

In its application for review, the Bureau stated: "The Review Board has overturned the decency prohibition of Section 97.119, and in so doing, the Board acted beyond its authority. The Board has confused its duty to determine whether Hildebrand's communications were indecent with whether there is an indecency standard in Amateur Radio. Furthermore, the Board has been guided in its decision by an inappropriately narrow view of the *Pacifica* decision. If allowed to stand, the Board decision will have an irreparable impact on all of Amateur Radio."

Under Section 1.47 of the FCC's Rules, the filing of an application for review has stayed the effect of the Review Board's decision. Therefore, the indecency prohibition of Section 97.119 of the FCC's Rules remains in effect, pending the FCC's ruling.

•

Violation of the rules of one radio service can result in the loss of a license in another radio service. This happened to three licensees in the Amateur and CB Radio Services; Walter N. Russell, General Class, ex-WA6WFN, Reseda, California; Jerry J. Wells, Advanced Class, ex-K0MGQ, Pueblo, Colorado; and Bernard J. Winner, Technician Class, WD8CMB, Tucson, Arizona.

Wells and Winner had violated amateur rules and Russell had violated CB rules. FCC's Private Radio Bureau had proposed suspension of the amateur operator licenses of each and revocation of the amateur and CB station licenses of each. In all three cases, the Administrative Law Judge hearing the case had held that the FCC lacked the authority to suspend or revoke a license in one service for a violation which occurred in another service. FCC's Review Board decisions upheld the judge(s) in each of these cases. The Private Radio Bureau requested that FCC review the cases and the Commissioners agreed with the Bureau.

This reinforces the precedence that willful violations of the FCC rules in one service would likely lead to violations in another service.

•

The revocation and suspension of the station and operator licenses of Kenneth L. Gilbert, KB6TG, of Monterey Park, California, has been affirmed by the FCC Review Board.

A 1981 decision had found that Gilbert used his station to transmit indecent language and "willfully interfered with other amateur communications . . . ." The Review Board agreed with the "Administrative Law Judge's findings of fact as well as ultimate conclusion that (subject to appeal) Gilbert's amateur station license should be revoked and his amateur operator's license suspended."

•

The revocation and suspension of the N6BII station and General Class operator licenses of Harold R. Claypoole have been proposed by the FCC. He was given 30 days in which to request a hearing on his case. Claypoole is reported to have caused malicious interference to other amateurs, transmitted music and used, a call not assigned to his station.

•

A recent inquiry indicates that the proper application of the FCC's Amateur Radio Service rules to the operation of "autopatch" systems may be widely misunderstood.

In 'Highlights' nine months ago, I reported "Use of a personal autopatch facility without a control operator supervising at the base station is not permitted by the amateur rules." Autopatches are almost universally used in connection with amateur stations otherwise operated as repeaters in the amateur VHF bands.

FCC rule section 97.3(1) defines "repeater operation" as: "Radiocommunication, other than auxiliary operation, for retransmitting automatically the radio signals of other amateur stations," Notice that it applies only to radiocommunication, not wireline communication, and includes only communications with other amateur stations.

Rule 97.3(m)(3) states: "Automatic control means the use of devices and procedures for control so that a control operator does not have to be present at the control point at all times. (Only rules for automatic control of stations in repeater operation have been adopted.)" Because an autopatch involves only one "other" station, not "other stations," the autopatching station is not engaged in "repeater operation" when it is autopatched to the telephone line.

Rule 97.79(b) states that: "Every Amateur Radio station, when in operation, shall have a control operator at an authorized control point. The control operator shall be on duty, except where the station is operated under automatic control . . . ."

Rule 97.79(d) states: "The licensee of an Amateur Radio station may permit any third party to participate in Amateur Radio communication from his station, provided that a control operator is present and continuously monitors and supervises the radio communication to insure compliance with the rules." It should be apparent that a person or persons at the far end of the telephone line are third parties. Thus, when a station is used for an autopatch, it must have a control operator on duty and the station log must contain "A notation of (the) third-party traffic sent or received, including names of all third parties and a brief description of the traffic content. This entry may be in a form other than written, but which can be readily transcribed by the licensee into written form." (Rule 97.103(b)(2))

I believe the foregoing includes all of the rules applicable to the use of autopatches; I hope I have been able to relieve some of the uncertainty which seems to prevail regarding their proper use.

•

FCC will conduct license examinations and a forum at the Dayton Hamvention, 30 April and 1 May. The examinations, which will be given Saturday, will be supervised by Ralph Haller, N4RH, formerly with the FCC's Field Operations Bureau. Ralph now heads the Experimental Engineering Branch of FCC's Office of Science and Technology.

The FCC's representative at the FCC Forum on Sunday will be John Johnston, W3BE, who is the Chief of the Private Radio Bureau's Personal Radio Branch.

Last December, the Dayton Amateur Radio Association (DARA) asked for a

**The Amateur Radio call signs did not arrive in time for the May issue.**

waiver of FCC rule 97.26 to allow volunteers to administer amateur exams at the Convention because FCC had said that examining personnel would not be available. However, Private Radio Bureau Chief, Jim McKinney decided to send an FCC employee to Dayton to supervise the examinations. Also, FCC's attorney's felt that FCC does not have authority to allow volunteer-written exams until adopton of Docket 83-27 authorizes such a process.

Although there is some concern over the "compromised" amateur examination questions presently in use, FCC does have a stock of uncompromised questions on hand. Some 1,000 applicants are expected, but it is likely the DARA will furnish enough volunteer help to conduct a proper and well-managed examination session.

•

Use of amateurs as communications backup on a regular and frequent basis for the radio services used by police or sheriffs' departments is likely to be in violation of Rule Section 97.114(c).

Some amateurs had been working regularly with a sheriff's department on a daily basis. They were issued Violation Notices for handling the sheriff's business in the amateur bands. FCC personnel concerned with the amateur rules did not feel that daily practice was necessary in preparation for possible emergencies, nor did they feel it wise to substitute the Amateur Service for a service especially designed, through the rule-making process, for police work. It was conceded that such things as the Halloween "Goblin Watch" run by amateurs to assist local officers in a number of communities can be regarded as "voluntary communications for the general public," permitted under Section 97.1 of the rules. See also 'Highlights' two months back wherein I reported "Amateur Radio licensees may not be used as a patrol force in anticipation of emergencies, under the RACES rules, as an alternative to government or non-government radio services already developed for the purpose . . . ."

•

In February, FCC adopted new rules providing for "stand-alone" RF modulators to be used between TV sets and such devices as video games, home computers and amateur teleprinter equipment, Docket 79-244. There have been no complaints of interference received by FCC about TV modulators, even though large numbers have been built under waivers since the rule-making Docket was initiated three years ago.

•

FCC's Field Operations Bureau is considering use of volunteer amateurs for investigating complaints of amateur-to-amateur interference. Plans were to be open for public comment in March.

•

If you hear interference in the high frequency amateur bands which you believe should be reported to FCC, *call them while it is going on!* If you don't know the phone number of the nearest monitoring FCC monitoring station, I recommend you call the Watch Officer in Washington, D.C. at 202-632-6975. If you suffer from obviously deliberate jamming, *DON'T* retaliate in kind. This makes it impossible for FCC to nail the original jammer, and hurts the reputation of amateurs in general as a self-policing service.

•

Vernon P. Wilson, KT4K, Chief of FCC's Regional Services Division, Field Operations Bureau has retired. His cooperation and ability to explain in concise terms what was going on has been a great help in preparing the 'Highlights' copy since its inception. Enjoy, Vern!

•

How to file comments on proposed rule making dockets is explained thoroughly and well in the *Westlink Report* of 11 February. It contains lots of good do's and don'ts. I would like to add one final bit of advice. Even if you think what the FCC is proposing is stupid or crazy, don't tell them so! Nothing will more quickly "turn off" the person who has to read and try to evaluate your comment.

•

FCC's Field Operations Bureau is planning to have an amateur volunteer monitoring program ready to go by October of this year. A formal announcement is expected by the end of May.

•

FCC's decision on the 20-meter phone band expansion rule making was expected by early April.

•

An early April date was expected for release of a Notice of Proposed Rule Making to consider FCC's proposals for expansion of the 80, 40, 15 and 10-meter phone bands.

•

FCC was expected to propose 10-year amateur license terms early in Apr
(*please turn to page 35*)

# Special Events...

## Jimmy Stewart

Our Indiana (Pennsylvania) County Amateur Radio Club will be helping the community of Indiana, Pennsylvania celebrate the 75th birthday of Jimmy Stewart, movie star and a native son of Indiana, Pennsylvania. Jimmy and his wife will be in town for the activities, which include a dance and an air show.

Our club members will be on the air all week, on all General and Novice bands at various times and frequencies. The dates: 16-21 May.

An SASE and QSL card sent to Sheldon Davis, W3FVU, 98 Rex Ave., Indiana, PA 15701 will get a very nice commemorative QSL card. □

## HANDI-HAM Spring Convocation

The Courage HANDI-HAM System announces its 14th Annual Spring Convocation, to be held 20-22 May 1983. Following is a schedule of events for those who plan to attend Camp Courage, near Maple Lake, Minnesota, and for those who desire to work Special Event Station WØEQO.

Camp Courage will be open for campers to check-in at 4:00 p.m. Friday, 20 May, with check-out around 2:00 p.m. Sunday, 22 May.

Station WØEQO will operate 10kc's above the lower edge of the General portion of the phone bands (±QRM). Operating hours (CDST) will be: Friday, 20 May — 8:00-10:00 p.m. on 40 and 80 meters; Saturday, 21 May — 8:30-9:00 a.m. on 80 meters; 9:00 a.m.-12 noon and 1:00-6:00 p.m. on 15 and 20 meters; 7:00-10:00 p.m. on 40 and 80 meters.

A special certificate will be sent to each station worked for SASE to: HANDI-HAMS, 3915 Golden Valley Road, Golden Valley, MN 55422. □

## Historic ship

The Olympia Radio Amateur Club's (ORAC) annual operating weekend will be held 21-22 May. Operation times are from 1300Z Saturday to 2000Z Sunday. Frequencies: *CW* — 3590, 7050, 14050, 21090, 28150; *Phone* — 3890, 7235, 14285, 21360, 28600. Novice operation is planned, as well as local 2 meters.

A beautiful certificate has been prepared for contacts with the ORAC on board the *USS Olympia* (C6), Admiral Dewey's flagship of 1898 fully restored. Stateside contacts please submit SASEs; foreign contacts send 2 IRCs. Additional inquiries about the ship's history or the *USS Becuna* should be directed, with SASE, to ORAC, P.O. Box 928, Philadelphia, PA 19105 USA. □



## Mule Days

The Bishop Amateur Radio Club will operate a special event station in Bishop, California, on Memorial Day — 28 May. The purpose of the event is to celebrate the Annual Mule Days Celebration in Bishop. Look for KF6JS on the following frequencies: 3.905, 7.240, 14.295 and 146.34/94.

A certificate will be offered for a large SASE to the Bishop Amateur Radio Club, P.O. Box 1014, Bishop, CA 93514. □

## NARC turns 50

The Northwest Amateur Radio Club will operate W9LM from 1700Z, 28 May until 29 May 1700Z to commemorate their 50 years in Amateur Radio. Frequencies: *Phone* — 10 kHz from lower General 40, 20, 15 and 10-meter band edges; *CW* — 25 kHz from lower edge of Novice bands; and 2-meter simplex on 146.52 MHz.

QSL with SASE for commemorative certificate to: NARC, P.O. Box 121, Arlington Heights, IL 60006. □

## Cape Hatteras Lighthouse

When the Cape Hatteras Lighthouse was completed in 1870, it was 1,500 feet from the shoreline. Today, it is 70 feet — and closing. The Cary Amateur Radio Club of Cary, North Carolina will draw world attention to the peril of this keeper of the "graveyard of the Atlantic."

On 28-29 May, whether the lighthouse is still standing or not, Cary ARC members and friends will put two HF stations on the air from a site close to "the big candle." The targeted time for operation is 9:00 a.m. (1300Z), Saturday, 28 May, to noon (1600Z), Sunday, 29 May. Operation may start sooner and last longer, depending on conditions and people power.

Planned frequencies for operation are: *CW* — 3552, 7052, 14052, 21052 and 28052 kHz; *SSB* — 3988, 7288, 14288, 21388 and 28588 kHz. The call sign will be KA4HAM (Extra Class).

Every station making a contact with KA4HAM during the special event can receive a commemorative, 8.5″ x 11″ certificate by sending an appropriate SASE (1 oz., folded or unfoleded) with QSL card containing the *correct* log information to Cary ARC, P.O. Box 53, Cary, NC 27511.

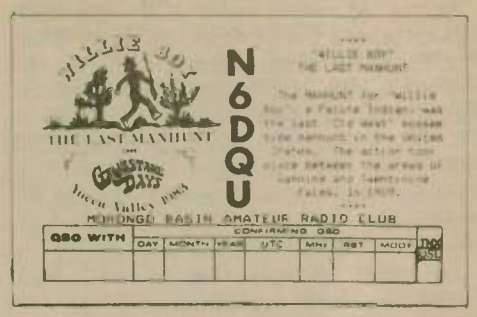
There is a public effort to raise funds to save the Cape Hatteras Lighthouse from the onslaught of the Atlantic. While many of the Cary ARC members may favor that project, this special event is only meant to focus attention on the peril of the lighthouse. There is *NO* connection with any fund raising. □

## Last manhunt

The Morongo Basin Amateur Radio Club will be operating a special event station in conjunction with the annual Grubstakes Days Celebration from Yucca Valley, California, 28-30 May 1983.

The theme of this year's Grubstakes Days Celebration is "Willie Boy, the Last Manhunt." The manhunt for Willie Boy, a Paiute Indian, was the last Old West possee-type manhunt in the United States. Well-known Hollywood actor Robert Blake starred as Willie Boy, and Robert Redford starred as the sheriff, in a full-length motion picture about this manhunt.

Listen up 10 kHz from the bottom edge of the General phone bands, 15, 20, 40 and 80 meters, and 10 kHz up from the bottom edge of the Novice sub-bands for "CQ Willie Boy N6DQU." Starts 1700Z Saturday, 28 May, and ends 1700Z on Monday, 30 May.




Send SASE to Chuck Robertson, N6DQU, 7103 Hanford Ave., Yucca Valley, CA 92284, for this distinctive QSL. Outside United States, send via bureau. □

## 10th Annual 'Helen to the Atlantic Ocean'

The Southern Piedmont Amateur Radio Club (SPARC) of Helen, Georgia will operate a special event station, sponsored by the Helen Chamber of Commerce, to celebrate the 10th Annual "Helen to the Atlantic Ocean" hot air balloon race. The race, held under the direction of the Free Spirits of Helen, Inc., will be held 2-4 June. The race will be from "the center of the world to the edge of the earth"; translated, this is from the center of our world, Helen, to the edge of the earth, the Atlantic Coast.

The station will be operating SSB during the daylight and early evening hours between 7200-7250 and 3865-3915 on 40 and 80 meters, using the club call WD4NHW. For an 8″ × 10″ certificate, send SASE to John Anthony, P.O. Box 28, Sautee, GA 30571. □

## Ohio Wine Week

The Wireless Institute of Northern Ohio (WINO) will be on the air with a special event station to commemorate Ohio Wine Week on Saturday, 11 June and again on Sunday, 12 June. On Friday evening we will be operating between 7:00 and 11:00 p.m. EDST (2300Z, 11 June to 0300Z, 12 June) on 3.900 MHz and 7.235 MHz. On Sunday afternoon we will be on between 11:00 a.m. and 4:00 p.m. EDST (1500Z to 2000Z) on 7.235 MHz and 21.360 MHz.

The station will be located at an actual winery in Madison, Ohio, using the call KO8O; a special QSL certificate will be available for a legal-sized SASE and an additional 40 cents (in postage or coin), sent to Scott Farnham, KO8O, 7126 Andover Dr., Mentor, OH 44060. □



## Tornado season

The Macomb Emergency Communication Association will operate special event station KA8KTV in commemoration of Michigan tornado season from 1300Z, 11 June till 2100Z, 12 June. They will be on 20-meter RTTY, 14.080-14.090, 2-meter FM on 146.07/67, and the upper General Class phone portion of 15, 40 and 80 meters as propagation allows.

QSL will a certificate-sized self-addressed envelope to: KA8KTV, Box 291, Utica, MI 48087. No postage needed.

## Rhombic Farm

Visitors' Day at the W6AM Rhombic Farm will be held Sunday, 12 June, 1:00-5:00 p.m., in Rancho Palos Verdes.

Fill your car with amateurs, XYLs and YLs, and go south on the Harbor Freeway to Anaheim Street. Turn right (west) one mile to the Palos Verdes hills (five corners), bear left up the hill on Palos Verdes Drive North, 3.8 miles to Hawthorne Boulevard. Turn left, up the hill two miles, past the Peninsula Shopping Center to "Highridge Road." Go left ¾ of a mile to 28503 Highridge Rd., Rancho Palos Verdes, CA 90274. Drive in two blocks to the 100 ft. long "ham shack."

The Palos Verdes Amateur Club is handling the parking; their XYLs are assisting at the coffee table. Virginia Reynolds and Don C. Wallace, W6AM will be glad to see you. □

## How to respond to special event station

**Gary Myers, K9CZB**

This past Decemer, the Argonne Amateur Radio Club (Illinois) operated their club station W9QVE as a special event station to commemorate the 40th anniversary of the first controlled nuclear chain reaction. Stations who contacted W9QVE were offered a commemorative certificate, in exchange for their QSL and a business-size or larger SASE, or $1 for mailing costs. The event and the certificate information were well-publicized in all major ham publications, and similar info was provided during QSO. Although we all had a great time, there was needless frustration and extra work caused by improper responses.

SASE stands for "self-addressed stamped envelope"; it does *NOT* stand for "self-addressed *sealed* envelope"! Incredibly, we received several of these. When one is facing a mountain of responses, long past one's bedtime, a pre-sealed SASE isn't appreciated.

—Always send a *complete* QSL card. And use UTC! We were amazed at the number of responses with no QSL or an incomplete one. Unless you have been involved with something like this, you have no idea how much extra work it is to search the logs for a call sign when you have few clues as to the band, time or date of contact. Even the simple oversight of using local time causes extra work.

In these days of frequent call sign changes, it is common to receive responses on old QSL cards, with the old call scratched out and the new one written in. This is OK, but if you are using a card with a prior call or address, make all corrections boldly and legibly.

If you can't write or print legibly, please type in all information. We received a number of cards which were nearly impossible to read, including a couple of completely hand-lettered ones where we weren't even sure of the call sign. We can only hope the certificate was filled out properly and mailed to the correct address. Needless to say, having to look up an address in a Callbook isn't relished by special event personnel.

Always use at least a No. 10 (business-size) envelope for your SASE. We received numerous small envelopes which would have required folding the certificate into sixths. This would ruin any certificate, especially one which is printed on thick stock.

If you want a QSL card from a special event station, but do not want a certificate, make that clear on the card. A QSL to a special event station with no SASE, and with no hint of what the sender really wants, generates needless confusion.

On the positive side, we really enjoyed the notes which were enclosed by some. It's a nice touch to include a few lines on the card, or even in a short letter — and it is appreciated. Operating a special event station is a very rewarding and satisfying experience, and we offer these hints in the hope that future operations will find it even more so. □

## Nun on a broomstick

Radio amateurs who make contact with P29NUN are talking with an Australian Sister of Mercy based in the Highlands of New Guinea. From the beautiful Catholic mission of Kefama, near Goroka, Sr. Margaret Bubb has been in regular radio contact with amateurs of the South East Radio Club based at Mt. Gambier. During the recent celebrations at Cape Northumberland, she received a special award for her contacts.

Sr. Margaret's brother encouraged her radio interests and, on his death two years ago, his radio equipment was sent to her in Goroka. Operating originally from an antenna of two pieces of wire attached to a broom handle, Sr. Margaret's call card is unique. Sought by amateurs around the world, it depicts the caricature of a nun riding a broomstick. Noting the spotted underwear, one ham commented "I always did wonder what nuns wore under those long black habits!"

The card and her call sign, P29NUN, were designed by a Goroka friend who also assisted with the technicalities of her radio equipment. Gaining her license in February 1981, Sr. Margaret is in contact with over 50 countries and says amateurs are fantastic people.

She operates her radio from her office at the pastoral training centre but says she has to resist the temptation to turn on the radio during working hours. From Bathurst in New South Wales, Sr. Margaret has been working in New Guinea for two five-year terms.
—*Australian Ladies' ARA* □

## What was that?

**Dave Atkins, W6VX**

Don't be a careless sender of Morse code or your contacts may not understand your message. Here are a few examples.

| | |
|---|---|
| Bemer | Better |
| Cline | C Line |
| Fazly | Family |
| Gx | Thanks |
| Hog | Home |
| Qrlcqcqcqcq | I'm busy QSY |
| J | Am |
| Jh | W6 |
| Kc | Take |
| KX6 | YU6 (reverse your beam) |
| Lic | Like |
| Lr | Air |
| Mp | Man |
| Nag | Name |
| Nn | C |
| Nv | Test |
| Ø | Old man |
| Pd | And |
| Pt | Antenna |
| Qry | Mary |
| Reek | Received OK |
| Sline | S LINE |
| Sn | I understand |
| T5 | 6 |
| Tet | Go ahead |
| Tig | Time |
| Ud | Question mark |
| YU6 | KX6 (reverse your beam again) |
| Zd | Mine |
| 5nn | You're loud here, and your note is clean |
| Mssms | 73 |
| Pst | West |
| Snt | Thirty* |

*Derived from landline Morse □

# AMATEUR RADIO IN PUBLIC SERVICE

## Amateurs effect Baja rescue

**Joan Ash, WD6BNH**

The phone rang at 6:00 p.m., 5 February. "Could I help with some medical emergency traffic to San Quintin, Baja California?" asked one of our new Novices. Larry Nufer, KA6WHL, had received a call for help from his good friends Alma and Ray Loyd, who live on their boat at Santa Barbara harbor.

The Loyds' son, Erin, and another friend, Tom Hesseldenz, had gone on a surfing and camping trip to Baja and were due home when the Loyds received a call from another American family telling them that both boys had been injured in a head-on collision and were in a clinic near San Quintin and that there was *NO* phone. *WHAT TO DO?*

Larry called me and I got him in touch with Michael Jogoleff, WA6MBZ (known to all of us as Jug). I called Jug because I knew he not only spoke Spanish fluently but that he participated in the TACO Net on 3.855, and if anyone could get through, Jug could.

Larry asked Jug to find out five pieces of pertinent information. 1) Could the boys be moved? 2) Was their paperwork in order? 3) What is the description of their general condition? 4) If they can be moved, where and when may they be picked up by plane? 5) What is the condition of the airstrip?

Five very important questions — Larry had his act together. Jug was lucky to raise Merv, XE2PU. Merv is an American, licensed in Mexico. He is a pilot, living near San Quintin. Merv got on 2 meters and was able to talk directly to Dr. Cano at the Clinic of the Good Shepherd. He was told that the boys could be flown out the next day. Yes, all their papers were in order. One boy had a fractured hip and was nonambulatory and the other boy had severe lacerations but was ambulatory.

When it came to, "Where can they be picked up and what is the condition of the runway," Merv was an unbelievable help. He knew *every* airstrip nearby and its condition. This one was too muddy, and that one was damaged. He told Jug which airstrip was the best and why, and which were bad and why. Jug relayed all this information to Larry, who in turn contacted the Good Samaritan Flying Club of Orange County, and arrangements were completed for the boys to be picked up the next day.

The Bonanza aircraft arrived on schedule, but was found to be too small to carry the stretcher-bound young man and his friend, who would not leave without him.

A larger Cessna was subsequently dispatched, but along the way it developed mechanical difficulties, and by the time they were resolved, not enough daylight remained to insure the plane would arrive before dark.

The transfer was successfully made on Monday morning. Dr. Eduardo Cani, XE2ECE, meanwhile dressed the wounds of the two injured young men. A doctor in Santa Barbara later remarked that the good work of XE2ECE prevented the need for plastic surgery.

Involved in the communications on Sunday and Monday were Dr. Cani, Christiane Tyberg, WD6DNW, and Violet Merci, the Mexican coordinator of tourism for Baja California, Mexico, in San Diego.

Jug put in about four hours doing all of this, and who knows how many hours Merv and the others logged.

The rescue mission was completed. Both boys received treatment at Cottage Hospital. One was released, but the boy with the broken hip was to be hospitalized for about four weeks.

*—Santa Barbara ARC, CA* □

## Special Olympics

**Wayne Renardson, NZ4W**

The Tennessee State Civil Defense Amateur Radio Club, in conjunction with the Nashville Amateur Radio Club (K4CPO), the Davidson County Repeater Association, Vanderbilt University Amateur Radio Club (W4VSV) and the Radio Amateur Transmitting Society will provide communications for the Tennessee Special Olympics to be held 20-21 May 1983 at Vanderbilt University in Nashville, Tennessee.

Tennessee Special Olympics provides a year-round sports, training, recreation and athletic program for mentally retarded children and adults in Tennessee. The games include competition in track and field, swimming, gymnastics, bowling, volleyball, soccer and wheelchair events. This past year, over 12,000 participants were involved in Special Olympics, and the organizations assisting with communications are in need of amateurs who will be able to accept traffic to the families of the athletes throughout the state of Tennessee.

There is a critical need for amateurs to receive messages from the participants as they arrive for the games on the 20th and for amateurs to relay the results of the games on the 21st, particularly in the smaller communities of Tennessee. The call signs in use will be K4CPO and W4VSV. We request Tennessee amateurs to monitor 40 meters CW 7050 MHz and 7250 MHz LSB on the even hours from 1800 CW 3636 MHz and LSB 3980 MHz on the odd hours the 20th and all day on the 21st. On 2 meters, please monitor 146.16/76, 146.28/88 and 146.34/94 MHz. Simplex will be .52.

For additional information, please contact Wayne Renardson, NZ4W, 1113 Woodvale Dr., Nashville, TN 37204; or Ralph George, W4CJY, 3716 Belmont Blvd., Nashville, TN. 37215; (615) 298-5892. □

## Life saved by fast-thinking hams

**Tom O'Hara, W6ORG**

While running with their 2-meter HTs in the third annual Walk/Jog/Run/Wheel for your Heart 5K/10K Race, 20 February in Whittier, California, Walt Clubb, N6CIT and Tom O'Hara, W6ORG came upon a 54-year-old runner at the .9 mile point, who had just collapsed in full cardiac arrest. A call was immediately made to Dave Haring, KE6FW — the net control station of the East Whittier Amateur Radio Club — who along with 11 other members was providing communications for the event. Dave saw the Los Angeles County Paramedic Squad 28 truck pull up to the emergency entrance at the Presbyterian Intercommunity Hospital across the parking lot and ran over to give them the victim's location.

Total time was about eight minutes from the time of the collapse to when the paramedics arrived. Luckily, among the runners were people experienced in CPR who kept the man going. Information on the location and that CPR was in progress by amateurs was credited with saving minutes that might have made the difference. As it was, it took five shocks to get the heart back into sinus rhythm. The last word was that the man is out of intensive care, in therapy, and with no apparent damage from the heart stoppage.

This actual emergency taught some valuable lessons to those involved in public service work. Quite understandably, many amateurs provide communications for events, with the idea of using

(*please turn to page 14*)


# the tempo S-15

## ...a no nonsense radio that provides more power, broader frequency range and simplicity of operation

The S-15 is the kind of hand held most people want. Simple, rugged, reliable, easy to use...it's the hand held for today and tomorrow. The S-15 offers a full 5 watts of power...power that extends your range and improves your talk power. The S-15 operates from 140 to 150 mHz (and 150 to 160 on export models). Compare that to the others. Its state-of-the-art integrated circuitry provides far more reliability and ease of maintenance than conventional circuitry...just one more indication of the kind of quality that goes into the S-15.

**Consider all of these features before you decide on any hand held:**

- **5 watt output (1 watt low power switchable)**
- **10 MHz frequency coverage: 140-150 MHz (For export only: B version 150-160 MHz, C version 160-170 MHz)**
- **Electrically tuned stages. Receiving sensitivity and output power are constant over entire operating range.**
- **Three channel memory. (1 channel permits non-standard repeater offsets. 200 micro amp memory maintenance (standby)).**
- **A new "easy remove" battery pack**
- **One hour quick charge battery supplied (450 ma/HR)**
- **Plug for direct 13.8 volt operation**
- **Speaker/microphone connector**
- **BNC antenna connector and flex antenna**
- **Extremely small and light weight (only 17 ounces).**
- **Ample space for programmable encoder.**
- **Fully synthesized**
- **Extremely easy to operate**
- **Its low price includes a rubber antenna, standard charger, 450 ma/HR battery (quick charge type) and instruction manual.**

**OPTIONAL ACCESSORIES:** 1 hour quick charger (ACH 15) • 16 button touch tone pad (S 15T) • DC cord • Solid state power amplifier (S-30 & S-80) • Holster (CC 15) • Speaker/mike (HM 15)

*Available soon!!*
**The CS-15.. a new version of the S-15.. for commercial use.**

- ✶ FCC type accepted
- ✶ Fully synthesized
- ✶ Ultra compact, portable
- ✶ Internally programmable
- ✶ Full 5 watt output
- ✶ 10 MHz receiver coverage

**TEMPO M-1**
Superb quality VHF marine band hand held. Synthesized for world wide use... all marine channels & 4 weather channels. Ch 16 override. All offsets built in.

**TEMPO S-2** Use 220 MHz repeaters nationwide. Synthesized, field tested and dependable.

**TEMPO S-4** The first 440 MHz hand held and still a winner.

*Available at your local Tempo dealer or from.*

HENRY RADIO 55 YEARS OF SERVICE

**Henry Radio**

2050 S. Bundy Dr., Los Angeles, CA 90025 (213) 820-1234
931 N. Euclid, Anaheim, CA 92801 (714) 772-9200
Butler, Missouri 64730 (816) 679-3127

**TOLL FREE ORDER NUMBER: (800) 421-6631**
For all states except California.
Calif. residents please call collect on our regular numbers.

## Life saved

(*continued from page 12*)

their radios or building a repeater, rather than thinking out a sound operational plan to communicate necessary information to those who need it.

For instance, a station on the net should be assigned to be with a paramedic or first aid unit for immediate dispatch and to get follow up information from the emergency site. If this isn't practical, at least have a station next to a telephone to make an immediate call. Locate stations where they are most useful for the event and in sufficient numbers to observe and report significant happenings to the right people rather than just convenience to antenna sites, AC power, etc.

In other words, talk to the event officials and find out their needs first, then apply the people and equipment to do the job rather than the other way around. It was lucky for the victim that two amateurs thought it would be interesting to monitor on their HTs as they ran the race, and that the NCS remembered seeing the paramedic truck go by. The location was out of sight of the closest fixed station's position, and word from passing runners would not have reached them for a few precious minutes. There were no telephone, messengers or race officials at the net control van, which KE6FW left wide open to run to where he thought the paramedics would be.

It would not be a bad idea to encourage the field stations to take a CPR class at the local Red Cross or adult school. As learned from this race, minutes can mean life or death. □

## Monterey aided by local ARES

**Herman Baker, N6ARP**

The ARES, with amateurs from the Monterey (California) Naval Postgraduate School Amateur Radio Club, assisted the Red Cross on rescue and relief operations on 2-3 March.

Serious landslides had cut off residents of two coastal canyons a few miles south of Monterey, and many houses were destroyed or damaged by fallen trees and flooded creeks. More than 70 people were evacuated by helicopter, and supplies were taken in to those remaining, by helicopter, hiking teams and mules.

The amateurs set up a control station at the Red Cross disaster HQ. It was found impracticable to use 2-meter links from that site, due to the terrain, so a 40-meter link was established from HQ to a collection point on the coast near the disaster area. From this point, contact was maintained on 2 meters with the helicopter and rescue vehicles. Among the urgent cases to be evacuated were patients with acute hypertension, diabetes and a broken leg.

Amateurs on the 40-meter band were all cooperative in giving this operation a clear frequency, and a solid channel was kept open. Operators over the two-day period were: Frank Girard, W6OII; Bill Webb, NK6H; Herman Baker, N6ARP; NQ6Q; WB6EKR; Pat Barthelow, WB6ZSB; Don Inbody, AD0K; and K6TDH. Others who assisted with telephone messages were: Marcel De Vaux, W6ZDX; N3DEW; and Cletus Bauer Jr., N3DAN. □

## Hospital calls on hams in emergency

Shortly after 5:00 p.m. on 21 February, a telephone breakdown halted service to Riverside County General Hospital and about 10,000 other customers in Riverside, California using the 351 and 359 prefixes. Interoffice telephone communications were prevented and department heads had to be utilized to relay messages from one part of the hospital to another.

At 1755 PST, Joe Brown, W6UBQ — control operator of W6TJ repeater of the Riverside County Amateur Radio Association, received a call from Maurice Elmore, KA6ABB, advising him the hospital had called Maurice asking for help during the internal phone outage. W6UBQ, as Section Emergency Coordinator, sent out a QST alerting the local RACES/ARES operators at 1800 hours. At 1805 hours, R.C. Lassiter — the emergency service coordinator at the hospital — called stating that both inside and outside telephone lines were out of service. Word from the telephone company was that the outage would last for five hours. Since Riverside General Hospital is the only provider of emergency service in the area, Lassiter requested five ham operators.

At 1810 hours, eight operators had responded and were assigned to critical service areas within the hospital. Working with KA6ABB as net control station were Harold Eddy, N6AXR, in the emergency room; Don Young, KA6DZU, Amateur Radio control point; Bob Braeger, WA6KER, pediatrics; Carol Wilcox, KA6FQW, neurosurgery; Jeff Lloyd, N6FRW, obstetrics; Ed Satchell Jr., WB6MHE, auxiliary; and Dick, KA6YSP, intensive care unit.

From 1815 hours to 2245 hours, approximately 40 messages were handled, including doctor paging, medical advisements and doctor/nurse consultations. By 2300 hours, a vital communications mission was completed under the direction of KA6ABB, ARRL Assistant Emergency Coordinator for Riverside County General Hospital.

## Un-pacific ocean weekend

**Lenore Jensen, W6NAZ**

The rains came in deluges, the tide was at a record high, and the waves pounded the Southern California coast in a widely-publicized tragedy the end of January. More than $100 million damage and countless homes were destroyed or severely damaged. And the amateurs did good work.

Among the groups which pitched in to provide emergency communications was the ARES gang from the San Fernando Valley under the leadership of District Emergency Coordinator Len Drayton, WA6LAU.

He received word from the Tree People — a group always ready to help the citizenry — that operators were immediately needed to help coordinate the volunteers filling and placing sandbags to thwart the ferocious sea in the Venice to Malibu coastal area.

ARES went into action and quickly rounded up operators with 2-meter equipment. Each four-wheel vehicle delivering huge piles of sandbags was accompanied by an amateur. When teams of baggers were dispatched, an amateur went with them to keep the command post aware of the activities.

The rain pelted everyone, but the work went on and many homes were saved. Len reports that a special case arose when George Nichol, K6KZF came on the frequency to request help for his mother's oceanfront home which was being harmed. Fast work brought a group of hard-working Marines who saved it.

Because many mountains separate the command post from the Malibu area, the repeater being used — W6ORD/r — was difficult to copy. Wayne Rankin, WA6MPG provided a most helpful link via 220 MHz.

Many of the amateurs went without sleep for long hours, but when it was over and the sea relented, they had the satisfaction of a "job well done."

Among those who helped were ARES members Bob Bright, W6AQQ; Kit Carson, WB6VPB; Bill De Armond, W6UEN; Len Drayton, WA6LAU; Bob Burns, N6ZH; Wally Foster, N6CDJ; Gerry Gross, WA6POZ; John Shaw, N6EHU; John Hiltabiddle, K6CTT; Dick Martin, N6ZQ; Wayne Rankin, WA6MPG; Ralph Seller, WA6TUQ; Dennis Smith, KA6GSE; Judy WD6FWZ and Alvin Teeter, WD6FXG; and Roy Brady, W6UXN.

This ARES group meets Mondays at 9:00 p.m. on 146.58 MHz and urges others to check in. □

## City calls on ARES for help

**Cinde Chorness**
**Submitted by Walter Rees, WA6BAX and Richard Adachi, W6RVS**

When reports of flood and wind damage began pouring into the Sunnyvale (California) Public Safety Department during the storm of 26 January, the PSD's communications team found it had a crisis: calls were coming in faster than the four dispatchers could handle them.

"Our guys were snowed," said Barry Hazle, the city's Emergency Coordinator (EC). "The lines were tied up and calls started coming in to the public works and parks and recreation departments" in city hall.

Hazle called the Sunnyvale Amateur Radio Emergency Service (ARES) for help. The group worked until 1:00 a.m. patrolling areas prone to flooding and relaying messages that dispatchers were too busy to take. The radio operators, working from the police station and with hand-held radios in their cars, also helped county officials coordinate storm work.

Though the 30-member radio club has helped the city in other programs since it was formed 30 years ago, that Wednesday was the first time the group had helped the city weather an emergency. It probably won't be the last, Hazle said.

"This definitely is a viable community resource that we will call when communications bog down in an emergency," Hazle said.

Members of the group are well-versed in dealing with emergencies. As part of a county-wide group, the radio club has aided communications during floods, storms and other disasters.

"It's satisfying," said Walter Rees, WA6BAX, EC for the ARES group. "This is an example of how those in the Amateur Radio hobby can do a public service."

The group's regular activities usually are in a quieter vein. Members hold meetings once a week on the air.
— *Peninsula Times Tribune, CA* □

## Radio important in isolated spots

**Submitted by Jim Wallace, WA7UJG**

On Wednesday, 9 February, local amateurs helped rescue a seriously ill woman from an isolated ranch, proving again the usefulness of Amateur Radio.

Vickie Hunter, KA7HQR, of Juniper Woods Ranch outside Ash Fork, Arizona, and her husband Ken, KB7H, rely on their radio to maintain outside contact when the roads are impassable, as was the case when Vickie was overcome with severe abdominal pain while alone at the ranch. She managed to make contact with Williams operator Reiner Uebel, WB7UCU, who phoned the Ash Fork General Supply store, where another call enlisted the aid of Deputy Julia Colvin who called Emergency Medical Technicians Leann Smutts and Maxine Howington.

Meanwhile, Ash Fork operator Don Hammond, K7ZAB, and Jim Wallace,

WA7UJG, were making radio contact with the airport attempting to secure use of a helicopter, because it was deemed impossible to traverse the mud-bogged roads to the ranch. Their attempts failed because the helicopter was out of order, so a four-wheeler caravan was created by Don Keding and Dick and Ruth Russell, assisted by Vern Howington and later by two of the Hunters' neighbors.

Williams operators Ken Polson, W7RU, Jim Glasscock, N7JG, and Jim Leathem, K7BTB, made contact with the hospital and Dr. Bates, so that when the caravan was finally able to get Vickie out on the almost impassable ranch road and transport her to Williams, treatment was ready for her and was successful.

This is an example of the community cooperation which is so essential in isolated areas, and also of the wisdom of being trained in radio operation in this kind of country.

— *Williams News, AZ* □

## Save A Life Net

**Dick McKeever, N6BAW**

At 2100 hours, on New Year's Eve, the WB6ASD repeater — located on Keller Peak (146.985) in San Bernardino County, California — went into semi-emergency status as net control for a special ARES (Amateur Radio Emergency Service) support program for various law enforcement agencies in a four-county area of Southern California. The program was called Save A Life Net. At that time, and until 0400 hours New Year's Day, bases assigned various area repeaters relayed information from mobiles direct to police dispatch.

These combination mobile/base teams provided data regarding traffic accidents, drunk drivers or hazardous conditions during the peak problem hours associated with that holiday. In most instances, bases maintained direct contact with police dispatch until units arrived at the location of the problem. This approach was especially effective with drunk drivers as all stops made by police units that were directed by the mobile/base team resulted in arrests of the drivers.

One additional arrest was made when Brian Walek, KF6AL spotted a car being stripped; through base support, he maintained surveillance until police units arrived.

Garhart Holoubek, WB6GCT — frustrated after following a drunk driver for 20 miles from Anaheim to Claremont with no police units available — was enroute back to his area when he happened upon an injury accident on the 57 freeway. After arranging police and medical aid response, he assisted in placing flares and traffic control.

Nine 2-meter repeaters and one HF frequency were monitored or utilized, and over 30 amateurs were involved in traffic or direct support during the eight-hour net. The majority of traffic was handled in the north Orange County area on the Anaheim repeater (146.79). Base stations in that area were kept very busy by mobiles working the area.

Willie Cline Jr., N6FOS found so many drunk drivers that he is seriously considering a kickback request from the CHP on the fines!

This program was very successful, but it showed us a need for closer ties to law enforcement agencies and a need for additional programs in this area for training and community support. It is also ideal in determining capabilities of ARES personnel for future responsibilities during conditions other than simulated. □

## Operation Help

**Tony Musero, K3UKW**

On Wednesday, 15 December 1982, a call was placed over 14.313 for assistance for a donor of a vital organ, to help save the life of a girl in Philadelphia, Pennsylvania. Net control station said that was a huge request, but they would run it. Moments later several stations called in. Net control asked me to QSY and establish my own frequency since this was the maritime mobile frequency and they would refer all calls concerning this matter to my established frequency.

At that time, I moved off frequency and established Operation Help on 14.320 MHz. For five minutes, I called, "QST-QST-QST-From K3UKW, this is Operation Help and we need a vital organ (liver) for a young female child of seven months, 14 pounds. Blood type: O, pos. but doesn't matter. Child's name, Kristina Deegan."

As I went from the transmit mode to receive, the speaker began to sizzle. Stations from Canada, Michigan, North Carolina, Texas, Ohio, Florida, Mississippi, Maine and Vermont checked in.

(*please turn to page 17*)

# At Last.

A microthin, synthesized, programmable, sub-audible tone encoder that fits inside the ICOM IC-2AT.

Need we say more?

$29.95


COMMUNICATIONS SPECIALISTS

426 West Taft Avenue, Orange, CA 92667
800/854-0547 California: 714/998-3021

## Operation Help

(*continued from page 15*)

WOW. The urgent message was repeated about Kristina Deegan.

All the stations that checked in immediately contacted their local hospitals and relayed the vital information for a possible donor. Joyce Lounsbery, N8EBG assisted as net control, and we repeated the first message. The local TV station showed up at the shack of K3UKW to film what amateurs were doing in this important situation. All contacts were given the telephone number for the local TV station in Philadelphia if any donor was found. A doctor from Pittsburgh called K3UKW from some amateurs contacting that hospital, and details about the transplant were reviewed for this layman.

Before I knew it, some station came on frequency and wanted it known that 28 donors were needed, since Kristina would go to the bottom of the list once she arrived in Pittsburgh, Pennsylvania for the surgery.

The net lasted over three hours and 30 minutes. Since this was a priority, several other organs were found and this net accomplished the results. Thanks to all who participated in Operation Help. Your *COOPERATION* really payed off in this case. □

## Georgia begins celebrating 250th

**Richard Smith, WB4APG**

Savannah ham operators participated in a communications safety net which was organized for the running of the sixth annual Savannah Marathon. A total of 1,905 runners came from 20 states to run in the full and half marathons that were held on Saturday, 8 January.

The net was established by the local Savannah REACT team and had both citizens band and ham components. The amateurs taking part were Tom Langenfeld, KA4RKX; Greg Dickerson, N4DBS: Sarah Smith, KA4MXJ; Gene Graham, WD4IJC; and Richard Smith, WB4APG. The last four are also long time REACT team members.

The Savannah Marathon is the first event of the semiquincentenary (250th) anniversary year celebration for the state of Georgia, and also the first chance to qualify for the famous Boston Marathon.

Communications operators were stationed at each fluid station as well as an amateur-equipped pace car and a roving CB radio-equipped motorcycle. There were very few dropouts due to medical problems. There was one heart patient who dropped out during the half marathon, which was not unexpected since that runner was being closely monitored by a medical team.

The Savannah Marathon course is very flat, but the warm temperatures (mid-60's) caused some of the times to be a little on the slow side, although there were some records set. Agegha Abraha (a 21-year-old from Ethiopia running out of the Atlanta Track Club) won the men's division in 2:24:58. The women's winner, Colleen Joiner of Lilburn, Georgia, won in 2:50:45. She set a course record and a state record for a Georgia competitor running on a Georgia course. So the Georgia semiquincentary year and the 1983 Marathon season are both off and running. □

## 'Slant E emergency'

**Clarence Hartzell, WD9DKD**

Thursday, 19 August 1982 was pretty much like any other day in the city of Bentonville, Arkansas. Until 6:00 p.m., that is. With the shriek of a wounded banshee, the town tornado siren split the air with a million decibels. But there was no scurrying for cover, no speeding attempts to get out of town; people went about their business much as if it had been a church bell announcing evening prayer.

Why this seeming indifference? They had been warned the siren would go off. It was part of a planned simulated disaster the Benton County Office of Emergency Services had been building up to for weeks.

The tornado had supposedly cut a large path of destruction through the south side of town. To complicate that, a tanker truck carrying poisonous chemicals had overturned on a busy highway, belching poisonous gasses into the atmosphere. People were overcome; some retching, some gasping for breath, some dying. Fifteen school children were lying along side of the highway, some unconscious.

This was all play acting, of course. But everyone went about performing their parts as if it had been a grisly reality.

In the building, in a small room off of the sheriff's office, sat two Amateur Radio operators. They were receiving check-ins from other operators in widely scattered parts of the county and state. Other amateurs operators were stationed in the disaster areas and reporting back to those at the sheriff's office control station. Messages received there were then handed to the proper authority for immediate action.

At the start, an Army MARS emergency network was activated and kept on standby status, operating on 2 meters through the MARS repeater station in Prairie Grove. The three networks, by means of interface operations, had a potential coverage of six states.

This demonstration of Amateur Radio capability was brought about by three MARS members: Clarence Hartzell, WD9DKD; Don Saxton, KA5BVH; and Robert Kellum, N5CGK. When they heard of the proposed simulated emergency operation, they offered their services as well as the services of the Army MARS organization to the Benton County OES Director, Kenny Shaw.

Later, when asked if he enjoyed the experience, Saxton sbook his head sadly and replied: "I hope we never have to do that for real." □

●●●

*"It's not that our good deeds are performed for thanks, but our survival may depend on letting the world know about them."*

*Lenore Jensen, W6CNZ*



## Arizona amateurs aid runners

**Shirlee Moore, KQ7Y**

On 23 October 1982, the Gila County Radio Amateurs (GCRA) provided communications for the 6th Annual Copper Valley Marathon (26 miles, 385 yards) and the 4th Annual 10,000-Meter Run. The marathon run starts on the San Carlos Apache Indian Reservation, three miles south of Peridot, Arizona, and ends in Globe, Arizona. The 10,000-meter race starts at Cutter, Arizona on the reservation and has the same finish line.

There were 23 amateurs and seven non-amateurs who helped out. This is the second time the GCRA has provided communications, and from the way things have gone during the past, it appears the GCRA will be a part of the marathon from now on. At least one amateur was at each aid station; one amateur was also with the race coordinator. The Globe 146.13/73 repeater was used. □

## South Carolina prepares for big one

**Chuck Clark, K4ZN**

On 11 September 1982, at the request of the National Weather Service, South Carolina amateurs provided all communications between the weather service offices in the state, as well as collecting observer reports from amateurs concerning local weather. Jimmy Walker, WD4HLZ — recently appointed Section Communications Manager and previously Section Emergency Coordinator — directed the project.

Amateurs operated stations at the Columbia Forecast Office and at the weather service offices in Charleston and Greenville, providing communications via both HF and VHF between the hours of 2:00 and 4:00 p.m., handling a total of 68 messages.

In October, Bernard L. Palmer — Meteorologist in Charge of the Columbia Forecast Office — met with Jimmy Walker and expressed his pleasure with the amateurs' performance, and the two discussed desirable improvements to provide better service in the future.

The weather service seeks Amateur Radio assistance in two major areas: first, communications between weather service offices if normal communications fail, and second, accurate reports of weather conditions from around the state. "Accurate and timely reports are critical," Palmer said, "because misinformation can be very damaging."

It was not 100 percent perfect, however. Meetings with the weather service personnel who observed the drill, and discussions among the amateurs who participated, turned up several weak points that are already receiving attention.

"Sometimes it took too long to get a message from one place to another," Palmer observed. "Many times, messages will be of little or no use if they are too old." One remedy for this problem is already in the works. Several of the repeaters in the state are being modified to provide linkage on 220 MHz, making it possible for stations with emergency or priority traffic to send it to its destination without any need for intermediate manual relays.

One lesson was learned by several of the amateurs who participated in the drill — that casual operating is not the best preparation for activities of this type. You have to know how to prepare a message, how to put it on the air, and how to receive it. Many of us tend to talk too rapidly, making it impossible for the receiving operator to copy without knowing shorthand. And 100 percent accuracy is essential too; here, as elsewhere, practice makes perfect.

Some of the traffic between weather stations involved records of observations, resulting in messages that were difficult to handle accurately by voice, requiring much phonetic spelling. It was the kind of traffic that goes much better by CW, but there weren't enough operators on hand to use this mode. Actually, RTTY would have been best of all, and consideration is being given to its use in the future.

The weather service has been pleased with the results of its cooperation with the Amateur Radio Service, and is committing itself to making wider use of it in the future. Amateurs have installed permanent VHF stations in the weather service offices, ready to be activated whenever needed, and HF antennas are also there ready to be connected to an amateur's rig in more widespread disasters.

Meteorologist Palmer plans another drill in the spring, probably in conjunction with Tornado Awareness Week. "We have something going here, but it needs to be worked on to be refined." □

## Silent Keys

Stanley Coutant, WA6BLK, of Sierra Madre, California, informs us of two amateurs who recently became Silent Keys. John M. Court, W7LTD, Sequim, Washington, died Sunday, 30 January. He was Chief Radio Operator of the U.S. Navy. Dick Hall, KI6Y, Northridge, California, died 1 March. □

# OFF THE AIR

## No-code license would cheapen Radio

The Honorable Daniel A. Mica
U.S. House of Representatives
131 Cannon House Office Building
Washington, D.C. 20515

Dear Congressman Mica:

On 1 February 1983, the FCC released PR Docket No. 82-28, which pertains to "Establishment of a Class of Amateur Operator License Not Requiring a Demonstration of Proficiency in the International Morse Code."

Part I of subparagraph 3 in Section 1 of Article 32 of the International Radio Regulations reads, "Any person seeking a license to operate the apparatus of an amateur station shall prove that he is able to send correctly by hand and receive correctly by ear texts in Morse code signals. The administration concerned may, however, waive this requirement in the case of stations making use exclusively of frequencies above 30 MHz."

As of this date, to my knowledge, two countries have violated this international agreement: Japan, by permitting a class of license to operate with low power in the frequency range of 3-30 MHz without a code exam, and the United States, by not requiring an exam in sending Morse code.

Since we, the United States, have violated part of this agreement, what is to prevent us in not violating the rest of the agreement if the "no-code license" is enacted?

Amateur Radio Service is for individuals who are interested in the technical side of radio and are able to provide emergency communications in disasters, all for the general benefit of the public. The amateur service is a voluntary, disciplined communication service guided by five traditional objectives: 1) to provide emergency or public service communications when normal communications are disrupted; 2) to advance the state of the art; 3) to improve individual skills in radio operation; 4) to provide a reserve pool of qualified radio operators and technicians; and 5) to promote international good will.

In 1932, we had 30,374 licensed radio amateurs. At the end of 1982 we had a total of 414,731 licensed amateurs. As you can see, the ranks have swelled and all have had to take and pass the code exam.

Amateurs see a code requirement as a "price to be paid for admission into the amateur ranks." They are proud of their achievement in knowing the code. It is impossible to "cram" for the code test because it is a neuromuscular skill such as typing and shorthand. Thus, anyone with the desire to enter the hobby must be willing to invest a few hours learning the code. A new amateur, having made this investment, is much more likely to respect his license as he has "paid" for it.

If the "no-code license" is adopted I — along with many others — see it as another step by the government to move toward a society that places little value on earning one's position in life. It will be a degradation of the concept of personal achievement and cheapen the hobby. The FCC talk of "modernizing license requirements and attracting bright young people into Amateur Radio" is pure hogwash. The amateur is looking toward something basic — human ideals, not some bureaucratic meddling into upsetting a tradition the radio amateur has enjoyed since its inception.

If one has a genuine interest in becoming a radio amateur (414,731 have already proved it), the code will not stop him. During World War II, any aviation cadet who did not learn the code was washed out and went into the infantry. I know of no such thing happening.

In Palm Beach and Broward Counties, there are approximately 3,800 licensed radio amateurs. Your intervention in stopping the enactment of a "no-code license" by the FCC would be greatly appreciated by many radio amateurs throughout this country, and at the same time you would be insuring our country an excellent pool of communications specialists.

Sincerely,
**HENRY L. LUHRMAN, W4PZV**
**Lake Clarke Shores, Florida**

P.S. Since there are many reasons why this "no-code license" should not be enacted, I — along with other amateurs — would like to discuss this with you on your next trip home. □

## He doesn't want no-code, but . . .

While I am not a no-code advocate, I lost my left arm, right thumb and left eardrum in World War II. I have not been able to get my code up over 12 wpm in three years. I think there should be some exceptions, as I have a 2nd Class Radiotelephone license that I got when I was 65.

**JAMES HOBART, KA6BYX**
**Santa Rosa, California** □

## No-code comments

Before it's too late, I would like to air my opinion on the "no-code license." So here goes.

I don't know what all this excitement is about a "no-code license." There's been one around for years! It's called "CB." I think this stands for "Codeless Band."

If the FCC is so concerned about these technically minded people exchanging ideas back and forth, let them do it on the CB (Codeless Band).

If the old 11-meter ham band is not to their liking, let them operate on VLF — 1750 meters. There's no license required there either.

If this also is not to their liking, let them communicate via the post office or Ma Bell.

The FCC certainly has nothing to gain from this "no-code license." They will just have that much more policing to do on the "no-code" bands as they have on the CB (Codeless Band) now.

I put off getting my ham ticket for over 13 years because I kept telling myself, "I can't learn that darn code. It's impossible!" Then finally, in the winter of 1979, I got serious about it, sat down and studied, and within a month I passed my Novice test. One month after receiving my Novice license, I passed my General, and a month after that, I received my Advanced. After operating phone for about two years, I decided I wanted the Extra, so I started studying the code again, and three months later, in June of 1982, I passed my Extra Class exam.

So if I can do it, any nitwit can do it! Thanks for letting me speak my mind.

**WALT GROSCH, KA9GLB**
**Milwaukee, Wisconsin** □

## A new approach to no-code issue

I would like to offer my opinion on the no-code test. From the articles on the no-code test, I get the feeling that most amateurs are afraid that the airways will be flooded with CBers and it will just be another mess like CB.

It seems to me that amateurs should go on the offensive rather than defensive. Instead of trying to save the ham bands, try to improve the CB bands. Then, even if the no-code test went through, there wouldn't be as much of the expected chaos.

Most CBers respect the professional operating procedures that amateurs use. If many of the amateurs across the country would spend a few minutes on the air (most have a CB around the shack) on a regular basis and use the same operating procedures as on the ham bands, it wouldn't take too long before most CBers would learn to like this professional technique. Instead of all the CB slang, dirty talk, etc., a call sign, first name, QTH, etc.

I agree that for many it will be hopeless, but for most, after awhile they would want to join these professional-sounding groups (low mike gains, legal power, etc.), and they too would try to use good operating procedures.

Everyone I meet says that CB wasn't meant to be as it is and I am sure that if most amateurs would get together on a regular basis, it would get the ball rolling. It would take a nationwide effort; one or two would be laughed off the air, but if many throughout the country tried at the same time, it would really be impressive; and it would only take a few minutes of our time.

Just set up some times and channels and get on together — perhaps a short net.

Anyhow, it is an idea and I am sure that many will agree it might work, but we need national support and organization. Who knows, maybe we could swing the other way and get some CW on the CB bands for long-distance communication. Then the companies would still sell new equipment. hi hi

**JOE FRENCH, N3DFU**
**Lebanon, Pennsylvania** □

## Handicapped don't need no-code license

It is noted that the no-code Docket — PR 83-28 — lays stress to the need for a codeless classification upon the basis of the difficulty the FCC may encounter in giving examinations to handicapped persons. They mention the General Docket 78-250 and indicate that such problem was addressed on 11 March 1979. It is indicated that they should not have to determine just who can take a code examination, or not be able to take it.

It appears the FCC is forgetting that they have made that distinction, about what type of device one can use to pass an examination. They should be reminded that much progress has been made in devices suitable for handicapped, since 1978 and 1979, and such progress comes only because of the need for it.

Before feeling too sorry for the plight of the FCC, we must remember that there are many handicapped who cannot speak and/or even use their hands, yet code may be their only means of communication. At Courage Center, the HANDI-HAM system of Minnesota has made much progress with a device that produces code merely by a slight suction or puffing on a tube held in the mouth, but if the FCC ex-

pects such applicant to do much reading to pass a theory examination, the applicant cannot even turn a page! Thus, it is nonsense to stress a strong theory examination about things such applicant cannot use, and try to make it appear too difficult to learn something that can be used — at least as a base for future improvement, with practice.

It is surprising that the FCC may still hold firmly to permitting code operations in all parts of the bands, upon the conviction that it is well that the various modes be able to communicate, yet now seeks to call a vast segment of our fraternity "amateurs" without even urging them to get started toward some code to build on for their future. Even code at 5 wpm is something to build on, but with a "Puff and Sip Keyer," an amateur without arms, legs or even eyes can carry on communications at 20 wpm.

**ARMOND BRATTLAND, K6EA**
**Long Beach, California** □

## Call aid station by name, not call

Since returning from Okinawa, Japan in December of 1981, I've experienced trouble in getting mail forwarded to me — some of it with as many as three or four postmarks on it! This includes any QSL cards sent to me for my operation as KA6CM/JR6 in the fall of '81.

Anyone who has QSLed to me and not received a reply, I apologize. Either one of the following addresses is good: SGT Steven J. Robeson USMC; MAG-49, 4th MAW, 53 AVI; NAS Willow Grove, PA 19090; or 1229 Shadowlawn Dr., Ravenna, OH 44266.

I would like to comment on something I observed while working with the Red Cross in Southern California's most recent fire season.

First of all, I am proud to have been associated with everyone involved. As a member of the Armed Forces, it makes me appreciate that which I am defending even more when I see so many people pulling together in times of trouble. I operated from the Irvine Park and Laguna Beach during the October fire, and saw people come from miles around to do whatever was requested of them, no matter how menial the task (and do it with style!).

I did, however, receive some inquisitive, if not critical, criticism from some non-amateur Red Cross personnel who were in the area and had occasion to overhear some of the on-the-air traffic and operating procedure. There was a specific period in which net control spent the better part of two hours sorting out which call was being used at which aid station or evacuation center. This not only caused a minor amount of confusion, but occupied an excessive amount of time and tied up a repeater.

May I suggest that next time (heaven forbid) such a disaster occurs, call each aid station or Evac Center by name, rather than by call. The control operator can then suffix the name with his/her call, as required by Part 97. I think this would allow for a smoother transition at shift change time, reduce confusion, and reduce — if not eliminate — a lot of non-essential traffic from busy repeaters. Since the FCC has streamlined the identification procedures, let's make maximum use of it.

Unfortunately, I don't have a copy of Part 97 with me as I type this, but I believe it specifically addresses the use of "tactical" call signs during drills or actual emergencies. it may bear some looking into by those to whom it falls to coordinate our operations during emergencies.

**STEVE ROBESON, KC8M/3**
**Willow Grove, Pennsylvania** □

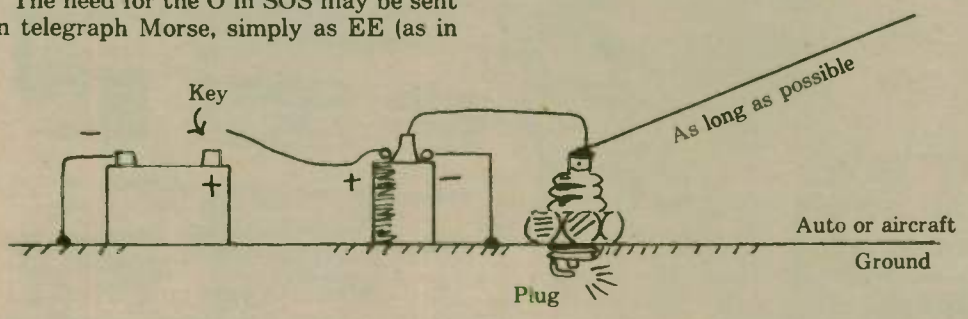
## More on emergency radio

More in regard to "Emergency Radio," (page 18, April 1983). In the event that no relay is handy, $C_1$ and $Ry_1$ may be eliminated. The terminal on the coil grounded or run to the negative end of the auto battery wire for aerial may be ripped from harness on vehicle.

The need for the O in SOS may be sent in telegraph Morse, simply as EE (as in EEK), which is common today.

The signal should go far and be heard on any receiver on all bands with possible exception of FM receivers.

**DAVE ATKINS, W6VX**
**Los Angeles, California** □




## Father/son Extras

I picked up a copy of **Worldradio** at a hamfest last week and saw my article on my son Bob, KA0NSM, "Catching up fast."

Well, he did it. He passed the Extra Class exam on 20 October 1982, with flying colors. He was not able to obtain the Extra at age 13, however, due to the FCC exam schedule. He missed it by two weeks, so was 14 when he took the test.

He is one of the youngest Extras in the 0 call district. He got his new call last week — KY0M, so now he doesn't get yelled at for being "out of his band" by some of the old-timers. Guess they can't understand a snot-nosed kid with a KA call being an Extra. hi He went from Novice to Extra in 5½ months. Took the OM 20+ years.

**WILLIAM DIAMOND, KY0K**
**Hannibal, Missouri** □

## Radiograms are easy to send

How many times have you held up originating a radiogram to someone because: 1) you had no idea about how to get into a traffic net; 2) were short of time to wait in an evening traffic net; 3) did not know net procedure or understand what the net control station told you; or 4) not having an 80-meter antenna, you continue to "wish." All such negative reasons — particularly not being entirely comfortable operating in a regular traffic net — you can now lay aside!

On the positive side, you do operate CW as a regular means of communication. You do at least have a 40-meter antenna or room to put one up. You do know how to write up a radiogram, or can look it up in the ARRL Handbook or other publications; and you do have a little time on your hands between 7:00 a.m. and 8:30 a.m. PST.

If the time suits you at 7:00 a.m. PST, listen around 7060 kHz for stations calling ARTS (Amateur Radio Telegraph Society). There is no NTS/net control station, but when you contact one — such as W5UH/"Hub" in New Mexico, W5TI/"Bill" in Texas, or any others you hear well and can easily work, they will tell you to move to some frequency off the calling frequency, a couple kHz up or down — whatever they know is clear. Moving to such, you will be told to go ahead "QRV" or merely "K" send your radiogram. They have patience and can get needed fills, unless you tell them "QSK" at the onset, when they can just break you and you can repeat the last word sent — a good, simple way to go!

At 7:30 a.m. PST, you will find W5UH and others handling traffic/radiograms about 7035 kHz and picking up traffic, right on that frequency, where you hear them. They know what to do with your radiogram to speed it on the way.

Good listening, good operating. 73.

**ARMOND BRATTLAND, K6EA**
**Long Beach, California** □



## No IRCs to Moscow

Please notify hams not to put IRCs in envelopes to hams in Moscow, Box 88. I always put notes on QSL cards to hams that I put so many IRCs in envelopes. This came out in QST awhile back, but I'm not sure all hams got the word. I got the word from a ham in Russia saying that IRCs were confiscated. I call them stolen.

I'll not give call sign, name or city because I would not like to get him into trouble. This ham was very upset about this.

**GEORGE KOMAREK, WD0CRY**
**Omaha, Nebraska** □

## W6AM shares BY-land visit with KL7's

Don C. Wallace, W6AM flew north to Anchorage, Alaska on Friday, 25 February to share his vintage of 74 years in Amateur Radio with his northern ham friends. He was accompanied by Virginia Reynolds, from their homes in Palos Verdes, California.

Don and Virginia were met on their arrival in Anchorage by John McQueen, KL7AVX and John Trent, KL7DG of the Northern Lights QCWA Chapter 92. A dinner at Denny's Restaurant on Denali Avenue in Anchorage arranged by KL7AVX provided 30 Alaskan amateurs a chance to meet Don and Virginia for a warm social hour.

W6AM related tales of his travel to mainland China where he carried a torchlight for Amateur Radio, which recently resulted in the first post-WWII amateur activity from that country. Later in the same evening, following his day-long trip from California, the 84-year-old living legend* of Amateur Radio met with 46 members of the Anchorage Amateur Radio Club, Alaska DX Association and the Northern Lights QCWA Chapter 92, to show motion pictures of his Palos Verdes antenna farm and noise suppression reception facilities.

Don and Virginia ushered in an early 1983 spring spirit to KL7 amateurs during their brief weekend stay in Anchorage. They returned to California on Sunday.

**JOHN TRENT, KL7DG**
**Anchorage, Alaska**

**Don Wallace was 20 when President Woodrow Wilson named him chief radio operator for the Versailles Peace Treaty after World War I, dispatching daily presidential messages from France. When Herbert Hoover was U.S. Secretary of Commerce, he presented Wallace with a silver cup for operating "the best all-around Amateur Radio station in 1923." One of Don's trophies salutes him for talking to a record 850 different amateur operators in one 24-hour period.* □

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

# American Radio Relay League

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

This month the ARRL Board of Directors is again faced with a major proposal to change Amateur Radio — the "no-code" license. A "no-code" license proposal is not new, the most recent one being the "Communicator Class" which was put forth in Docket 20282 a few years ago.

There are many aspects of the new proposal that have to be considered.

Do we really need a code requirement at a time when CW operation is becoming less and less a part of commercial radio? Would a no-code license bring large numbers into Amateur Radio and increase our national strength? Isn't the radio spectrum the property of every citizen? What is the purpose of Amateur Radio, anyway? These are some of the questions posed by those who support the proposal.

Many radio amateurs fear that if it becomes too easy to acquire an Amateur Radio license, the "chaos" found in the citizens band radio service will result.

The whole question does bring up an important issue. What should Amateur Radio be? Isn't it designed to bring young people into technical fields?

Let's assume that it's true there are many young people who are interested in computers and related technology, and who should be given a way to bring their skills to Amateur Radio. One way would be to have a codeless, highly technical license for those interested in using Amateur Radio to transmit computer data. Sounds like a good idea. Could be done on a VHF band — say, on the new 900 MHz segment that will be available for an amateur band. This would seem to be a good place for technically minded young people to enter Amateur Radio.

While it does sound good, as a high school teacher, I know that most people who are interested in using radio really want phone-type operation and not high technology. In fact, since CB, the high school Amateur Radio programs — at least in my area of the country — have fallen off in popularity.

Many students who are interested in radio tell me they are already on CB and that this is good enough for them. It doesn't matter that most of these young people are illegal operators, since neither they nor their parents have CB licenses. Many of these young people have told me they don't feel they should take time to learn the code *or even technical knowledge* when they are already on the air with commercial equipment, acquired by purchase or otherwise.

One of the major reasons for having Amateur Radio is to build a "pool" of highly trained radio technicians and operators as a national resource, especially for times of need such as war or disasters. Are we failing in this goal? How will we achieve this goal if young people entering the ranks of Amateur Radio have only a minimum of or no requirements? Remember that many young people don't look on the code as the only thing that keeps them from getting an Amateur Radio license; many would like to see all requirements waived.

I suspect that many people of all ages would like to see no requirement other than sending in a form to obtain an amateur license, and I suspect the majority only want to use some kind of phone operation.

Many would probably like to have an effective personal communications system. Most would like to enjoy our VHF repeater operation, now so popular in Amateur Radio.

Perhaps it is our own fault that we have large numbers of people who would like to use this type of operation. We often "show off" what we can do on repeaters, covering relatively long distances with very low-power hand-held equipment. We even have autopatched telephone service and all the other repeater-type goodies.

I remember reading an article in a CB magazine at the time of the proposed Communicator Class license that was most enthusiastic about that proposal. The writer was ecstatic that at last "citizens" would be able to use reliable radio communications without much in the way of a test, code or otherwise. The author felt that the written test would contain very little in the way of technical information.

The author went on to say that the "new" license would be for the amateur 2-meter band, and that the really great thing about it was that "everybody" would now have access to the many amateur repeaters across the country. I doubt this would have happened, even if the new license had gone into effect.

So the ARRL Board again faces the prospect of a no-code license. They need our input. They need our help. Be sure your Director knows how you feel about the new proposal. Let him know what you think Amateur Radio should be.

If you decide to write to the FCC or others about your feelings, be sure you write from a logical viewpoint rather than from your emotions.

If you write to the FCC, send a copy to ARRL Headquarters and your Director. You ideas might be just what we need to help make Amateur Radio and ARRL stronger. □

# Reasons to join

**Carl Weaks, N4DMA**

Our club recently became an ARRL-affiliated club. We did this because our bylaws state that we will, as a club, be in agreement with the aims and purposes of the ARRL and will strive to maintain a membership of which at least 51 percent are ARRL members.

Why do we want to do this? Most of us have a considerable investment in this so-called hobby — if not money, then definitely time, sweat and tears. The *only* organized effort standing between us and the powerful commercial interests, that would and do continually try to take our frequencies, is the ARRL.

For instance, just a few months back a cordless telephone company thought how nice it would be and how much money they could make if they had the 160-meter band. They were in for quite a shock when the FCC listened to the united voice of the ham community instead of them.

During the 1979 WARC, a very strong effort was made to take the 40-meter band. The ARRL was the leader in throwing back the attack. We are now engaged in a crusade to protect the amateur interest from the ravages of CATVI. Around the country, expensive court cases are being fought to protect our right to put up antennas and radiate clean, inband signals. This is a privilege some cities would, if they could, take away. Only our united voice is holding our frequencies and fighting our attackers. The League speaks for all radio amateurs.

Yet, are we a united voice? The total amateur population is about 400,000. League membership is 150,000. That number is down 20,000 from a year ago. What is happening and why?

Some say they just can't afford the $25-a-year membership, and I'm sure some can't. I have a hard time believing, though, that 250,000 of us can't. Some say, "Well, I like 73 or CQ Magazine better." Fine, subscribe to them; QST is not a magazine. It's the official journal of the ARRL and only one of the myriad of League membership services. It reports to the members where their money is being spent, the activities of other members and the decisions being made by the duly elected officials of the ARRL.

As an added attraction, some donated articles are thrown in for those who really don't care what their elected officials are doing. Some say, "Well, I didn't agree with everything the League did, so I quit." Fine, your opinion will never be heard now. Oh, by the way, when the League asks for your opinion, do you write them and voice it, or do you sit idly by and force the League to proceed with the opinions of others? I've heard some say, "Well, my membership ran out and I just haven't gotten around to renewing it yet." I answer that by saying, "Renew it *NOW*!"

If you're not a League member, see the club secretary. He'll be glad to get you signed up. At the same time, if you join through the club, $2 will come back to it. That way you can really have a voice in how some of your money is spent. Then be an active League member, vote in the election, voice your opinions and read the fine print in QST. No matter what else you do, be a League member. Let's keep our voices united, else we drown in the noise of others!

*—Argonne ARC, IL* □



## STATION APPEARANCE

Rick Dittmer, WH6AMX is the winner of our Station Appearance this month. Rick lives in Honolulu, Hawaii and currently serves as Chief Area Coordinator, Pacific Region for AMSAT. He's been an amateur since 1978, when he was first licensed as WD9IRI, and is a life member of ARRL and AMSAT.

"My main operating interest," writes Rick, "is Amateur Radio satellites. I can be found operating on both OSCAR and Russian "RS" satellites on a daily basis, and on all modes of satellite operation." Rick was the first in Hawaii to achieve Satellite WAS.

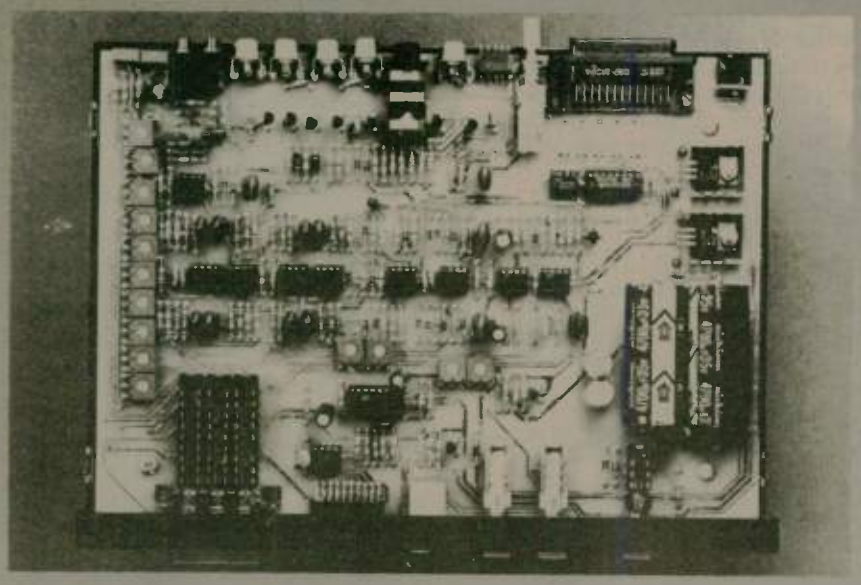
**Rick Dittmer, WH6AMX sits next to his station, where he spends most of his on-the-air time working satellites.**

The equipment used in station WH6AMX is as follows: *Transceivers:* ICOM IC-451A 430 MHz; Kenwood TS700SP 2-meter; Heath SB104A HF; *Amplifiers:* Mirage D1010 430 MHz (100 watts); Mirage B1016 2-meter (160 watts); Heath SB230 HF (1200 watts); *Preamplifiers:* ICOM 430 MHz and Ameco PT2 HF.

The antennas Rick uses are an HF 3-element tribander; a 2-meter Cushcraft 10-element twist; and a 430 MHz 7-turn homebrew helix.

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

# CHAMPAGNE RTTY/CW on a Beer Budget



## CP-1 Computer Patch™ Interface

The AEA Model CP-1 Computer Patch™ interface will let you discover the fastest growing segment of Amateur Radio: computerized RTTY and CW operation.

When used with the appropriate software package (see your dealer), the CP-1 will patch most of the popular personal computers to your transceiver for a complete full-feature RTTY/CW station. No computer programming skills are necessary. The CP-1 was designed with the RTTY neophyte in mind, but its sophisticated circuitry and features will appeal to the most experienced RTTY operator.

The CP-1 offers variable shift capability in addition to fixed 170 Hz dual channel filtering. Auto threshold plus pre and post limiter filters allow for good copy under fading and weak signal conditions.

Transmitter AFSK tones are generated by a clean, stable function generator. Plus (+) and minus (-) output jacks are also provided for CW keying of your transmitter. An optional low cost RS-232 port is also available. The CP-1 is powered with 16 VAC which is supplied by a 117 VAC wall adaptor included with the CP-1.


Please write AEA for more detailed information on the CP-1 or better yet, see your favorite dealer and compare.

Prices and specifications subject to change without notice or obligation.

**ADVANCED ELECTRONIC APPLICATIONS, INC.**
P.O. Box C-2160, Lynnwood, Wa. 98036
206/775-7373 Telex: 152571 AEA INTL

**AEA Brings you the Breakthrough!**

# DX WORLD

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

## Activities Calendar

| | |
|---|---|
| 23-23 April | H-26 Helvetia Contest |
| 28-29 May | CQ World Wide WPX Contest (CW) |

**W-100-N**

**192. WB4LJP JAMES E. McQUEEN**
**193. KC8RH MARK S. LANDWEHR**

### Heard Island DXpedition(s)

Now that the two separate DXpeditions to Heard Island are history, all sorts of rumors are spread. And, until the teams return to base, we won't know the truth. The biggest one heard is that upon leaving the island, Jim Smith and his crew had their boat capsized, dumping them, their gear and *maybe the logs* into the sea. All hands were rescued, *but* no word on the logs.

One report has it that Jim's team (VK0JS/VK0NL) managed some 12,500 contacts during their two-week stay. The other team (VK0HI/VK0CW) was reported to have made over 25,000 contacts. Another report is that Jim's team made 14,500 contacts with 138 different countries. In the next few weeks, we will probably have the complete facts on the number of contacts. Either figure is impressive, considering the operating conditions down there. The weather was deteriorating and the bands were so poor that most of the time both groups stuck to 20 meters. Both stations were reported to be within a half-mile of each other.

QSL cards for VK0HI and VK0CW go via N2DT, while Jim Smith's operation are handled by Jim directly to HIDXA, P.O. Box 90, Norfolk Island, SOUTH PACIFIC 2899. Be sure to include sufficient funds for return postage, not to mention a nice donation for their efforts.

### Clipperton Island (FO8)

The last Clipperton Island DXpedition was back in 1978. **Worldradio** was indirectly involved in that one, where the previous DX Editor, Charles Signer, WA9INK, was a member of the DXpedition team. As Charles was super-involved with the preparations and going on the trip, I took over for him. **Worldradio** was used as a mailing address, for a period, for the Clipperton DXpedition which led to the confusion where there were some DXers who thought it was a **Worldradio** operation.

*The DX Bulletin* reports that the next Clipperton operation is scheduled for late 1983 or early 1984. The radio club of French Polynesia — the Club d'Oceanie Radio et Astronomie — had planned for March of this year, but that had to be postponed. It should include a large team of eight FO8 types, six Americans and perhaps a couple of Japanese. Jim Cain, K1TN — the editor of that publication — is in contact with two of the Americans involved and will keep us posted.

### Interview with K1MM

DX newsletters are not the only publications I "lift" items from. DX club newsletters are another source. In the October 1982 issue of the Kansas City DX Club's publication, Mike Crabtree, AB0X, printed an interview with Bill Poellmitz, K1MM, that was taped by the club's president, Rick Barnett, KB0U, at the ARRL National Convention. It will give you some input on what your favorite DXpeditioners go through to give you a new country.

KB0U: What was the most exciting DXpedition you ever went on?

K1MM: Spratly, no question about it. It had everything: a hazard navigationally, a hazard due to piracy, the difficulty of locating a small speck of land out in the middle of the ocean. Then, as it turned out, it was more than we bargained for, which made it even more exciting.

KB0U: Was the trip to Spratly as frightening as the slides seemed to indicate?

K1MM: Knowing what I know now, I wouldn't have done it. If I had taken the trouble to find out some background of that area of the world before I went, there is no way I would have gone on the trip.

KB0U: Did you have any guns with you on that trip?

K1MM: We had a shotgun which was nailed under the planks in the boat. The boat captain and owner had previously been in Singapore, and the penalty for having guns in Singapore is death. So, he built the shotgun into the floorboards of the boat, but the gun came out when we were followed by pirates.

KB0U: You didn't mention that in the slide show.

K1MM: No, we were followed by alleged pirates, but we found out they were as afraid of us as we were of them. But there was no altercation. Yet, there's no justice on the high seas — only survivors who can tell their own story.

The interview continued with other questions such as what kind of gear to take on DXpeditions, his attitude toward lists and DX nets, etc. The interesting part was the beginning of the interview.

The Spratly DXpedition that they were discussing was the 1S1DX operation in April 1979 by Harry Mead, VK2BJL, Stew Woodward, K4SMX, and Bill. There is a short narrative on the back of the 1S1DX QSL card:

"Travelling in the yacht 'Banyandah,' the DXpedition spent 10 days in the South China Sea before finding an unoccupied island in the Spratly Group in Latitude 8°04'N and Longitude 113°12'E. After being turned back twice from other possible operating sites, once by gunfire, the DXpedition made a landing and operated for 72 hours making 13,226 QSOs on 10, 15 and 20 meters on phone and CW."

**This grass shack was the Moorea QTH of the O'Briens during their recent DXpedition to French Polynesia. Jay operated as FO0JO and made a total of 7,421 QSOs while Jan, operating as FO0OJ, accumulated 1,494 QSOs during their visit from 22 October through 4 November 1982. After many years of working VHF and UHF Jay decided to give a try at DX and is now well over 300 countries worked. Jay, who signs W6GO, was first licensed as W6GDO in 1949. Oh, yes! The XYL, Jan, was licensed as K6HHD back around 1953, which probably influenced Jay to marry her.** ***(Photo courtesy of W6GO)***

### Spratly Islands (1S)

Two German radio amateurs were scheduled to have gone to the Spratly Islands near the end of March. Earlier reports gave a starting time of 22 March for a period of five days, and a later report added a delay of one week. It would have been nice if we all had advance warning, but sometimes this cannot be done. This is why I have always stressed that if you are a serious DXer, subscribe to one or more of the DX newsletters that I have listed at the end of the column. The addresses of two of them are listed elsewhere in **Worldradio**.

The plan for the Spratly DXpedition by the team of DJ3NG and DJ6SI was to have DJ3NG concentrating on SSB signing 1S3NG and DJ6SI handing out CW contacts with the call 1S6SI. Prefix hunters will be in there as the last two DXpeditions signed with the calls 1S1A and 1S1DX.

China, Viet-Nam and the Philippines all claim this island group. From the experiences of the 1S1DX group had in 1979, it is a wonder why anyone would want to chance being shot at again.

### Bouvet Island (3Y)

*The DX Bulletin* reports a rumor out of Norway that Odd Bugten, JW4GN, is trying for a Bouvet DXpedition in June or July. It is reported that no license application at the office of telecommunications is on file. If you check your atlas, you will see that this island is in the wrong part of the world for a landing at that time of the year.

### South Georgia Islands (VP8)

A station signing VP8ANA has been reported on 15 meters operating SSB. The operators, a group of biologists from the University of Minnesota who — according to one report — do not possess Amateur Radio licenses, nor do they know what a QSL card is. *DX News Sheet* reports that the British Foreign Office does confirm the presence of two biologists from the university.

T.S.G. Makins, G4DNV, who is stationed at the BAS Base in the South Orkney Islands, was supposed to visit the South Georgia Islands and stay through the Antarctic winter. The call he will be using is unknown at present.

### Liberia (EL)

This country isn't all that difficult to work, and most DXers have it by now. But, as in most Third World countries, they are always in demand.

On 75 meters EL2AD has been found on 3.795 MHz working Europeans around 2130 UTC. Jack is on that band almost every day and says to QSL via Mary Crider, WA3HUP.

EL2P likes the low end of 20 meters CW and has been working into the East Coast from 0100 UTC. Look for this one around 14.012 MHz. On SSB, EL2ED has been reported on 14.226 MHz around 2300 UTC working the West Coast with EL2BN on 21.362 MHz from 1600 UTC.

### Kenya (5Z)

A couple of Japanese radio amateurs — Nana Ihara, JI1VLV, Yoshikazu Kato, JA8CDT, operating as 5Z4NN and 5Z4JA respectively — were supposed to have visited Kenya in February. They were scheduled to work all bands and all modes, including RTTY. We have seen no reports of anyone working these two calls, so perhaps the DXpedition never materialized.

From the various DX newsletters, several Kenya stations have been reported active. On 40 meters CW, 5Z4CM was worked on 7.006 MHz around 0315 UTC, and on 10 meters SSB on 28.573 MHz at 1600 UTC. 5Z4CQ has been reported on 21.273 MHz from 2000 UTC with 5Z4CV being reported on 7.006 MHz around 0300 UTC.

Another active station is 5Z4DE, who has been reported several times. Look for this station on 14.223 MHz from 1400 UTC and on 21.283 MHz from 1900 UTC.

Also on 15 meters SSB, 5Z4WL has been reported near 21.264 MHz after 1800 UTC.

For one more Kenya station, tune your ears for 5Z4CL, who has been found near 14.217 MHz at 1400 UTC. Now, do you still need a 5Z4?

### French Polynesia DXpedition

Jay, W6GO, and Jan, K6HHD, have finally gotten their QSL cards ready to go to confirm contacts they made between 22 October and 4 November 1982. Between the two of them, they made a total of 8,915 contacts from two different locations. Their first stop was Bora Bora, and they were restricted to only 15 meters making only 547 contacts.

Jay, using the call FO0JO, made most of the calls — a total of 7,421, while Jan, operating as FO0OJ, made 1,494 contacts, SSB only. Jan was probably too busy enjoying herself out there to get on the radio. Over half of Jay's contacts were in the CQ World Wide DX Contest.

Jay reports that of all their contacts, 58 percent were statewide contacts with Japan followed by 26 percent; 45 percent of the contacts were made on 10 meters.

Now, if you didn't work FO0JO or FO0OJ and still need French Polynesia, look for FO8GW, who has been worked on 14.245 MHz around 0400 UTC from the East Coast and also on 28.505 MHz at 1900 UTC. FO8HL has been found on 21.283 MHz at 1600 UTC working the easterners.

### St. Peter and St. Paul's Rocks (PY0S)

March was featured by another DXpedition to St. Peter and St. Paul's Rocks by a German group. The team included one Brazilian, PY7OY, who was assigned the call PY0SA, along with Dieter Messer, DJ9ON; Hans Guenter Mueller, DF3KX (who was the YL operator); DK9KX; and Harry Jakob, DL8CM. These amateurs were assigned the calls PY0ZSD, PY0ZSE, PY0ZSF, PY0ZSG and PY0ZSH, respectively. PY0ZSD and PY0ZSH were reported to be the CW operators. The group was busy on all bands, with some DXers working them on all five bands. All CW contacts should be QSLed via Roland van Holderbeke, DA2ZH, with SSB cards to DK9KX.

### 160 meters

Sid Goodman, KB4LX, says he is a 160 nut. Sid was real active in the last 160-meter contest, even after having three teeth pulled the day before. Reported in the contest were such DX calls as HP3FL, YV3AZC, ZS5LB, GM3ZSP, G4OGP, J6LB and KH6ND. Sid is well on his way to 160-meter DXCC.

Reported from Europe, the following DX stations have been worked, frequencies in kilohertz and times in UTC:

| | | |
|---|---|---|
| HH2VP | 1835 | 0500 |
| 8P6J | 1807 | 0500 |
| JA6BJT | 1911 | 2150 |
| ED9EA | 1840 | 0515 |
| EA6JD | 1852 | 0005 |
| FC6KSC | 1820 | 0100 |
| KV4FZ | 1830 | 0145 |
| 5B4EP | 1847 | 2030 |
| JW5VAA | 1837 | 2200 |
| XT2AW | 1828 | 2215 |

### Prefixes

As 1983 is World Communications Year, various prefixes have been popping up. That EM4LAM you may have heard is just another Soviet station. Stations in Monaco have been signing with the 3A3 prefix. Frank, DJ9ZB, was on from Monaco during the CQ World Wide WPX contest, signing 3A3WPX on all bands.

The French have also gotten into the act; they are using the "TO" prefix, and down on the island of Cuba, T42AMC has been handing out a new prefix to the deserving.

Reported in the RSGB *DX News Sheet*, the Koreans have agreed on the ITU allocations where the South Koreans will use HL and D7A to D9Z, and the North Koreans will us HM and P5A to P9Z. Now, to find one of those North Koreans!

### East Burma (1Z9)

The Karen State of East Burma has unofficially switched from the XZ prefix to 1Z9. 1Z9A has been reported on 14.225 MHz around 1600 UTC, with 1Z9B being worked about the same time on 21.240 MHz. These stations formerly were XZ5A and XZ9A, but we don't know who is who. They still don't count for DXCC.

### 75 meters

The following stations have been worked by various members of the Kansas City DX Club on 75 meters, SSB, and/or 80 meters, CW: GJ3HYU, ZL2AMM, ZL4OY/C, 5N8ARY, FP8AA, 3D2RW, VK3DUP, ZK1CH, UK6LCB, K4VX/HC, T32AF, T32AB.

Bill Tippett, W0ZV, has collected an even 200 countries on this band over a two-year period.

The thought of attempting to work 100 countries on this band has discouraged many DXers from seeking the 5-Band DXCC. It is not impossible to work your 100 counties on this band, and it does not take a lot of power. (See a note on this later.)

If you wish to check it out, try these for starters; the times are in UTC to the nearest whole hour:

| | | |
|---|---|---|
| CT2AK | 3.783 MHz | 0800 |
| FM7WS | 3.799 | 0800 |
| D44BC | 3.799 | 0500 |
| EA8LD | 3.796 | 0500 |
| CO2KK | 3.795 | 1100 |
| JA6IEF | 3.794 | 1200 |
| TI5FBP | 3.794 | 1200 |

| | | |
|---|---|---|
| VK6HD | 3.800 | 2200 |
| 6W8DY | 3.797 | 0700 |
| A35JL | 3.786 | 1200 |
| CE3DNP | 3.788 | 0800 |
| OA8AAH | 3.795 | 0800 |
| ZS4MJ | 3.795 | 0400 |

### An over-achiever

As we stated above, you don't need high power to work 100 countries on 75 meters. We don't know how much power Bill W0ZV used to work those 200 countries, but try this one for size. It has been reported that Ron Moorefield, W8ILC, has been awarded 5-Band DXCC #1271. This has been endorsed for QRP, and at 1 watt! I think that is one QRPer who never climbed the hills of San Rafael for advice from the old Master.

### European beacon joins NCDXF worldwide network

Martti Laine, OH2BH, announces that OH2B became operational 1 March 1983. The station is installed at Helsinki Technical University in Espoo and is managed by the Finnish Radio Amateur League with Arto Harjula, OH6GJ, responsible for its operation and with Martti Laine, OH2BH, acting in an administrative capacity.

The NCDXF (Northern California DX Foundation) beacon transmitting sequence on 14.100 MHz will be: 4U1UN/B, W6WX, KH6O, JA2IGY, 4X6TU, OH2B, (blank) and ZS6DN. The sequence begins with 4U1UN/B at 00:00 with each station transmitting four 9-second dashes at power levels decreasing from 100 to 0.1 watts. The sequence is repeated at 10-minute intervals. The blank in the above listing was formerly that of CT3B. Refer to last month's Worldradio regarding this subject. The item was front page news.

The beacon network is only one of the many contributions that the NCDXF has made to Amateur Radio. Many of those DXpeditions that you may have worked were financed in part by this organization. Memberships and donations to the foundation are welcomed. For a donation of $5 or more you will receive a membership certificate in full color. A reproduction of the certificate is shown below. Send your donations to: NCDXF, P.O. Box 2368, Stanford, CA 94305.




### World Communications Award

Turn your beams in the direction of Australia for this one. The World Communications Award is sponsored by *Amateur Radio Action* and is available to all radio amateurs worldwide during World Communications Year 1983. The award is a limited edition award, with only 1,000 numbered certificates.

The award is available for any band or mode, and in addition, single mode or band endorsements are available. To apply for any endorsements, applications must include the frequency and mode information for each contact claimed. To qualify for this award, you must have accumulated the following confirmed contacts:

| | | | |
|---|---|---|---|
| VK1 | 3 stations | VK0 | 1 station |
| VK2 | 7 stations | ZL1 | 5 stations |
| VK3 | 7 stations | ZL2 | 5 stations |
| VK4 | 7 stations | ZL3 | 5 stations |
| VK5 | 7 stations | ZL4 | 3 stations |
| VK6 | 7 stations | P29 | 3 stations |
| VK7 | 3 stations | ZK1 | 1 station |
| VK8 | 3 stations | ZK2 | 1 station |
| VK9 | 3 stations | 3D2 | 1 station |

The above reported contacts apply to applicants outside of Oceania. Stations in Oceania require additional contacts. All contacts must have been made during the calendar year 1983.

To encourage contact with Novice grade stations in Australia and Papua New Guinea, a special endorsement will be available for stations submitting proof of all VK and P29 contacts being made with the following Novice allocations: 28.100 to 28.600, 21.125 to 21.200 and 3.525 to 3.625 MHz. Contacts with stations in other areas may be made in any band using any authorized mode. Cross-band contacts will not count.

To apply for this award send a certified list of confirmed contacts by at least two licensed radio amateurs with a fee of $2 Australian, (or 8 IRCs) to: The Awards Manager; Amateur Radio Action; G.P.O. Box 628E; Melbourne, 3001; AUSTRALIA.

### Clubs

The two big rival DX clubs are the Northern and Southern California DX Clubs. Not so! It seems that another rivalry exists back in Kansas. Now, this one exists between the Kansas City DX Club and the Kansas DX Association. As with the California clubs, these two organizations are in the competitive mood, and as a result, a good crop of DXers has surfaced from the two groups.

The Kansas City group elected their 1983 officers last November with Jim Walker, KB0X, as president; John Chass, W0JLC, as vice president; Mike Crabtree, AB0X, as secretary, and Bill Henderson, K0VBU, as treasurer. Mike Crabtree also edits the club's newsletter. The Kansas City DX Club meets the last Monday of each month at the TWA Training Center, 1307 Baltimore, Kansas City, Missouri. Sharp readers are going to catch me here as I referred to the KDXA and the KCDXC as Kansas rivalries. Perhaps the other Kansas City is included in the KCDXC membership. Meeting time is at 7:30 p.m.

Up in the Pacific Northwest, the Fraser Valley DX Club elected their new officers with W7EKM as president, N7RO as vice president, WA7ZWG as secretary and VE7IN as treasurer. This club, whose call is VE7DXC, sponsored the Pacific Northwest DX Convention in Richmond (Vancouver), last summer.

Any other rival DX clubs out there? Let's hear from you!



### Guest editorial

One of the more aggravating things I've heard recently goes something like this: "The 10 MHz band? Why bother, nothing you work there counts anyway." Of course this refers to the decision by the ARRL (and other organizations worldwide) to keep the newly-opened band free from the more competitive aspects of Amateur Radio — contesting and awards.

I hope the spirit of DXing is bigger than just the pursuit of DXCC "counters." Imagine the ultimate DXer. He or she would set up a super station with tall towers and huge antennas, then make the DXCC Honor Roll with just 312 QSOs in 312 different "countries" — then dismantle the whole thing and take up another hobby! Of course, none of us are like that. However, I often hear "I never work JA's," or "I never get on — except to work a new one" from self-styled DXers.

What has happened to the thrill of communicating with another *person* across the miles, oceans or continents? Can you remember the excitement of your first DX QSO? I still can, and it was nearly 20 years ago! If Amateur Radio is going to continue to make its "unique contribution to international good will," it's going to take more than "5NN PSE QSL" contacts to do it. Work some QRP JA's, practice your Spanish with an LU, discuss gardening with a Y22 or a ZL, try the new 10 MHz band. Make some DX friends — that's what DXing is *really* all about.

The above Guest Editorial was written by Jim Hadlock, K7WA, President of the Western Washington DX Club, and was printed in the March issue of "The Totem Tabloid" the official newsletter of the WWDXC. Yes, I can remember my first DX contact, (I think it was my first), with an Italian station on 15 meters, AM. I was living in New Jersey then and was all excited. Right after the contact, which was lost in the QSB, I ran to the post office to mail his card direct. I was running an old Viking Ranger with an 80 meter dipole. That was over 25 years ago.



### Reader comments

"I am 15 years old, and got my ham license in November," writes Jason Mayrand, KA1JOB. Like many new radio amateurs, Jason has already been bitten by the DX bug. He snagged 9X5SL recently on the 15-meter Novice band on 21.136 MHz, where Jason and Lothar chatted for nearly 45 minutes. This goes to show you that sometimes rare DX does frequent the American Novice bands. It is interesting that KA1JOB was able to maintain a 45-minute QSO; down in the other bands, poor Jason would have been blown off the air for taking so long in his chat. Perhaps that is one of the reasons these DX stations do go into the Novice bands, as they know they will not be hassled there. Nice catch, Jason!

Jay Seyler, W9LCQ, comments on the high cost of QSLing. Yes, it is expensive if you send all your QSL cards direct. The best way is send your cards via the ARRL Outgoing QSL Bureau, (provided you are a League member), or one of the commercial outgoing QSL bureaus. Keep envelopes on file at your incoming QSL bureaus so all incoming cards can be sent to you. By using the bureau system, you will find that to QSL DX contacts is actually less expensive than to QSL domestic contacts.

"Maybe, someday, as suggested somewhere," says Jay, "there will be a central computerized station where all contacts can be registered; but on the other hand, isn't it sufficient to know one has worked a DX station? Nothing like that card on the wall, though."

# 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".

**JUNE 1983**

| UTC | AFRI | ASIA | OCEA | EURO | SO AM |
|---|---|---|---|---|---|
| 0100 | 17.2 | 21.3 | 27.0 | 16.4 | 22.4 |
| 0200 | 15.4 | 21.7 | 27.2 | 15.8 | 22.0 |
| 0300 | 15.1 | 22.2 | 27.6 | 15.6 | 20.5 |
| 0400 | 18.5 | 22.0 | 27.7 | 14.7 | 19.0 |
| 0500 | 17.9 | 20.7 | 26.7 | 15.2 | 17.9 |
| 0600 | 16.1 | 19.3 | 24.4 | 15.5 | 16.2 |
| 0700 | 14.3 | 18.7 | 21.3 | 14.3 | 13.9 |
| 0800 | 12.6 | 18.6 | 18.1 | 13.3 | 12.2 |
| 0900 | 11.5 | 18.0 | 15.4 | 13.3 | 12.8 |
| 1000 | 11.4 | 16.7 | 13.8 | 12.8 | 16.1 |
| 1100 | 12.1 | 15.4 | 13.4 | 13.2 | 16.1 |
| 1200 | 13.5 | 14.8 | 13.2 | 14.2 | 16.1 |
| 1300 | 15.0 | 15.0 | 12.9 | 15.8 | 18.1 |
| 1400 | 16.4 | 16.2 | 13.1 | 17.4 | 20.4 |
| 1500 | 17.4 | 18.2 | 13.8 | 18.6 | 21.3 |
| 1600 | 17.7 | 18.8 | 14.0 | 19.0 | 20.9 |
| 1700 | 18.0 | 18.4 | 12.9 | 19.2 | 21.2 |
| 1800 | 18.5 | 18.2 | 11.9 | 19.6 | 22.9 |
| 1900 | 19.0 | 19.0 | 13.0 | 20.0 | 24.7 |
| 2000 | 19.2 | 21.0 | 16.6 | 20.0 | 25.5 |
| 2100 | 19.2 | 22.0 | 21.2 | 19.5 | 25.3 |
| 2200 | 19.5 | 22.2 | 24.9 | 18.7 | 23.5 |
| 2300 | 19.4 | 21.9 | 26.7 | 17.8 | 22.2 |
| 2400 | 18.6 | 21.5 | 27.2 | 17.1 | 22.0 |

DXers come in all ages. Take George Heitzman, W7AHX, for example. George says he has been a radio amateur since November 1925. He had the call U7CE and lost it in 1927, then got the call NU7AHX and has had the call ever since. Newer amateurs should understand that in those days there were no prefixes, and the "U" and "NU" were unofficial and were used by early DXers to identify themselves as "United States" or "North American, United States."

Herbert Hoover, then Secretary of Commerce, signed George's 1925 license. George, now 71 years of age, is busy working on single band WAZ's. He still needs Zone 34 on 28.0 MHz SSB, and Zone 19 on 21.0 MHz SSB. George recently accumulated enough cards for 296 DX-CC countries confirmed. (He was cut from 326.)

## Contest results

Polski Zwiazek Krotkofalowcow, or PZK if you cannot pronounce it, has announced the winners of their 1981 SPDX Contest. (There was no SPDX Contest in 1982, as their radio amateurs were shut down.) We have listed the top North American scores. The first figure is the score, followed by the number of contacts, points and the number of Wojewodztwo's (provinces) worked. The maximum number of Wojewodztwo's is 49.

| | | | | |
|---|---|---|---|---|
| K1CC | 46,863 | 381 | 1143 | 41 |
| K9BG | 37,506 | 329 | 987 | 38 |
| WA1UZH | 36,039 | 293 | 879 | 41 |
| W8RSW | 34,047 | 291 | 873 | 39 |
| W9OA | 31,860 | 295 | 885 | 36 |
| K1WT | 30,771 | 263 | 789 | 39 |
| W1END | 30,303 | 257 | 777 | 39 |
| VO1AW | 25,920 | 240 | 720 | 36 |
| K2SX | 23,751 | 203 | 609 | 39 |
| W6UA | 22,050 | 210 | 630 | 35 |
| W3ARK | 21,630 | 206 | 618 | 35 |
| WA4OML | 20,763 | 192 | 576 | 36 |
| VE3DAP | 20,265 | 193 | 579 | 35 |

The above scores were in the CW portion of the contest. All 49 Wojewodztwo's were represented in the contest as the entry of UB5FAA in the Ukraine worked all 49 with 145 contacts on 40 meters.

K1CC was also the top North American station in the SSB portion of the contest with 30,303 for a total score, with 39 Wojewodztwo's worked.

The Radioklub der Deutschen Demokratischen Republik announces the results of their WAY2 Contest, (formerly WADM), for 1981. There were only 17 entries from North America and we will list them all.

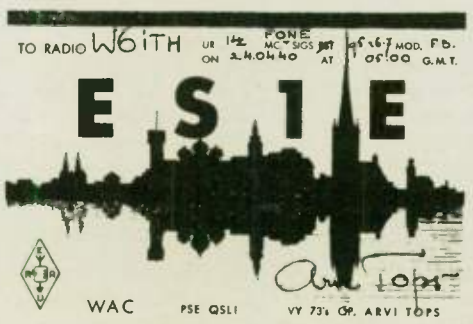
| | | | |
|---|---|---|---|
| K9BG | 41,922 | K4DDB | 1,530 |
| W3ARK | 27,000 | N6JM | 1,092 |
| K2SX | 15,576 | W1OPJ | 1,050 |
| WB7FDQ | 10,260 | KC4OV | 858 |
| AB2E | 6,960 | W5TZN | 858 |
| K2QF | 5,400 | WA4VEK | 630 |
| N4MM | 4,524 | W5EIJ | 336 |
| W1CNU | 2,250 | W4YN | 210 |


Notice that some of these stations placed in the SPDX contest. If you are an awards chaser, these various DX contests are a sure bet for those missing contacts.

## Antique QSL Department

Our contributor to the Antique QSL Department for this month is Reg Tibbetts, W6ITH. Reg was going through his old QSL files and came up with some very interesting oldies. The card from LY1S is for a contact made back on 24 March 1939 with an amateur in Latvia.


Reg made the contact on 20 meters with a 100-watt phone rig. This was AM, not SSB. The reproduction of this card does not do Reg's card justice as the QSL is in full color — blue, yellow and red, and also green where the blue and yellow inks were overprinted. This is the second Latvian card that has been shown here; the first one was in the August 1979 issue with that of LY1AA for a 1933 QSO.




Reg also submitted another colorful card, this one for ES1E in Estonia. The operator of this station in 1940 was Arvi Tops, who also worked Reg on 20-meter Phone. This card is printed in blue, red and black. In the same issue of **Worldradio**, we printed a QSL card from LY1AA for a 1933 contact.

Reg has been using this W6ITH call for a long time — around 50 years. If you happen to get your hands on a copy of the January 1983 issue of **Amateur Radio**, published by the Wireless Institute of Australia, turn to page 28 for the full story of Reginald Tibbetts. Reg is now 71 and never misses a chance to nab a true-blue DXer.

## QSL information

Charlie Moraller, K2CM, who handles QSL cards for Tim BV2A, is moving to West Virginia. As of 1 May, Charlie's new address will be Route 1, Box 485, Millstone, WV 25261. Note that this applies for Tim's BV2A call only. If you worked Tim as BV2B, you must request a QSL card from Tim direct. Tim will also answer cards for BV2A if you so desire a direct QSL card.

KB7SV reports through *The Long Island DX Bulletin* that he is not the QSL manager for CO2HQ. The W6GO/K6HHD List gives WB6QPG as the QSL route for this station. This got us checking the Cuban calls in the O'Briens' famous QSL Manager list, and we noticed that several CO2 types use the QSL services of KB7SB. Maybe this is where the confusion came about. Always listen carefully for that QSL information.

## QSL routes

| | | | |
|---|---|---|---|
| A4XFS | —G4CUO | KG4GN | —KG4 Bureau |
| A22DC | —VE3LZF *(See Note 1)* | KG4LN | —KG4 Bureau |
| | | LU5ZA | —LU2A |
| A92DQ | —K2IIE | N4NW/6W8 | —AK3F |
| AH2AQ | —WB0LTF | N8DCJ/8P6 | —N8DCJ |
| AH0C | —N6BT | N0ZO/DU2 | —K0LST |
| AP2MQ | —JA3CMD | ON6BC/C9 | —ON6NY |
| C6ABC | —KZ4C | PY0SA | —*(See Note 5)* |
| C31YF | —G4HNP | PY0ZSD | —*(See Note 5)* |
| CN8BJ | —K4CEB | PY0ZSE | —*(See Note 5)* |
| CN8CX | —K4CEB | PY0ZSF | —*(See Note 5)* |
| CN8EU | —KA4S | PY0ZSG | —*(See Note 5)* |
| CO2HS | —WB6QPG | PY0ZSH | —*(See Note 5)* |
| CO2PY | —KB7SB | PZ5DX | —K3BYV |
| CQ6OF | —WA3HUP | SJ9WL | —SM0BMG |
| CR9AC | —DJ0FX | SV0CR | —WA7QAR |
| CR0LN | —CT1LN | T2AWN | —VK3DAK |
| CX5AO | —CX7BY | T30CX | —VK3DAK |
| CX7AAR | —AA1U | TL8ER | —F6GQK |
| DK7PE/HB0 | —DK7PE | TO6HAU | —F6HAU |
| DL1JW/HP1 | —DL1KB | TR8JD | —F6AJA |
| EA8ZI | —SM5IWC | V2AU | —OE3ALW |
| ED9ICH | —EA9JV | V2AW | —WB8SSR |
| EK9C/0 | —UK9CAE *(See Note 2)* | VE2DVG/YK | —VE2FEX |
| | | VE2DVG/4U | —VE2FEX |
| EL2AD | —WA3HUP | VE7CZH/4U | —VE7BLM |
| EL8N | —SM4CWY | VP2EAA | —W0RLX |
| EM4LAM | —UA4LPE *(See Note 2)* | VP2EC | —N5AU |
| | | VP2EH | —KC5EA |
| EN6A | —UK6AAJ *(See Note 2)* | VP2ER | —KC5EA |
| | | VP2ES | —K8CV |
| FB8XAB | —F6GXB *(See Note 3)* | VP2EU | —K8MR |
| | | VP5FUX | —KB9AW |
| FB8ZQ | —F6GXB *(See Note 3)* | VP5MOX | —KF1V |
| | | VP5XX | —WB9TIY |
| FM0FTP | —FG7BG | VP8AOE | —K0JW |
| FP8DX | —WA1AYS | VQ9CI | —KE4OC |
| H5AK | —WB2ULI | W1DV/DU2 | —WA2RKX |
| HH2BM | —W6RP | XO2JCG | —VE2DU |
| HH2JR | —KA5V | YB0ACP | —K6DLV |
| HK0BKX | —WB4QFH | ZD8DA | —ZD8AR |
| HZ1AB | —YASME *(See Note 4)* | ZD8MF | —ZD8AR |
| | | ZD9BX | —KA1DE |
| GJ5DSD | —N4EA | ZF2GO | —WB9OTX |
| GJ5EOV | —N4EA | ZL0AAA | —VE3GD |
| GU5DSD | —WA4WPO | ZL4OY/C | —VK3DWJ |
| GU5EOV | —WA4WPO | ZS3GB | —N0AW |
| J87BI | —KA2GMT | ZS5LB | —W2LT |
| J87LTA | —K4LTA | 1S3NG | —DK9KD |
| J88AB | —W2MIG | 1S6SI | —DJ6SI |
| JY9RV | —GW3RVG | 3A3EE | —F9RM |
| K4LTA/V2A | —K4LTA | 3A3WPX | —DJ9ZB |
| K5VRX/8P6 | —K5VRX | 3D2RR | —VK3DAK |
| K8WW/VP9 | —K8WW | 4N4T | —YU4TN |
| K9MK/V2A | —K9MK | 5B4MN | —VE7DLM |
| KA1UA/J88 | —WA1KAT | 5H3LB | —SM6FYJ |
| KC6SZ | —JA6BSM | 5H3MI | —SM5KDK |
| KC7UU/5N6 | —K6EDV | 5H3YL | —SM6BDW |
| 5R8AL | —F6EXV *(See Note 6)* | 7X4BL | —DF9EP |
| | | 7Z2AP | —I8YCP |
| 5T5DX | —W2TK | 8Q7AB | —K5BO |
| 5T5RY | —F6FNU | 8Q7AE | —I2ZAQ |
| 5V7NW | —AK3F | 9J2TY | —JH3DPB |
| 5W5EB | —VK3DAK | 9L1EX | —LA2EX |
| 5X5FS | —EI9G | 9L1JW | —DJ0GN |
| 5Z4CI | —PA0ADC | 9Q5DQ | —K2IJL |
| 5Z4JA | —JA8CDT | 9Q5JE | —DJ5TY |
| 5Z4NN | —JI1VLV | 9U5JM | —F3LQ |
| 7P8CP | —WD5JME | 9X5SL | —DL8DF |

| | |
|---|---|
| A99A | —P.O. Box 22381, Muharra, BAHREIN |
| AP2M | —Alam, P.O. Box 999, Rawalpindi, PAKISTAN |
| EA9LZ | —P.O. Box 265, Ceuta, North Africa, SPAIN |
| EL2AH | —CSS-LAMCO-Roberts Int'l Airport, Buchanan, LIBERIA |
| EL2BE | —P.O. Box 1011, Monrovia, LIBERIA |
| FH8CQ | —P.O. Box 144, Dzaoudze, Mayotte 97610, FRANCE |
| G4AVW/ST3 | —P.O. Box 2632, Communications Department, Khartoum, SUDAN |
| HP3FL | —P.O. Box 76, David, PANAMA |
| J39BS | —P.O. Box 290, St. George's, GRENADA |
| J88BC | —P.O. Box 853, ST. VINCENT |
| J87BS | —3 Chesterfield Hill, London 1, ENGLAND |
| KG4CD | —Richard Sands, Box 585, FPBO Norfolk, VA 23593 |
| TI2DL | —P.O. Box 761, Centro Colon, San Jose, COSTA RICA |
| TJ1AF | —B.P. 2878, Duala, CAMEROUN |
| TR8DR | —P.O. Box 2125, Libreville, GABON |
| YB3ON | —P.O. Box 17, Kediri City, Djawa, INDONESIA |
| YS1LSR | —P.O. Box 1493, San Salvador, EL SALVADOR |
| Z21GJ | —P.O. Box 66021, Kopje, ZIMBABWE |
| 3B8FL | —P.O. Box 1104, Port Louis, MAURITIUS |
| 3V8PS | —Peter, P.O. Box 473, Tunis, TUNISIA |
| 4S7PVR | —31 Rajamawatha Road, Ratmalana, SRI LANKA |
| 5N2LED | —P.O. Box 900, Minna, NIGERIA |
| 5N8AFE | —P.O. Box 12635, Kano, NIGERIA |
| 5Z4CM | —P.O. Box 30514, Nairobi, KENYA |
| 5Z4DA | —P.O. Box 30137, Nairobi, KENYA |
| 6W8EX | —P.O. Box 35, Ziguinchor, SENEGAL |
| 9J2CV | —P.O. Box 70992, Ndola, ZAMBIA |
| 9J2DS | —D. Soko, P.O. Box 71831, Ndola, ZAMBIA |
| 9J2TJ | —P.O. Box 28, Chisekesi, ZAMBIA |
| 9M2CH | —P.O. Box 777, Kuala Lumpur, MALAYSIA |

**Notes**

1. QSL cards for A22DC are now sent to VE3LZF, the operator's home call. Cards were formerly sent via VE3BIS.
2. As for all Soviet QSL managers, cards must be sent via P.O. Box 88, Moscow, USSR.
3. Refer to the April column for the correct address for F6GXB.
4. This route applies for contacts made by Lloyd and Iris, W6KG and W6QL, only.
5. CW contacts are handled by DA2ZH while SSB contacts are handled by DK9KX. PY0ZSD and PY0ZSH are the CW operators of this DXpedition.
6. This applies for the period 13-27 March only. Paul F6EXV was a guest operator at 5R8AL. Try WA4VDE for all other contacts.

Contributors to this month's column include KA1JOB, K2CM, KB4LX, K6HHD, W6ITH, W6GO, K7ICW, W7AHX, W9LCQ, W9LNQ, DJ9ZB, VK2BJL, Northern California DX Foun-

(*please turn to page 28*)

# ICOM IC-730

## ICOM's Go-Anywhere HF Rig for Everyone's Pocketbook


## Compact.

Only 3.7 in (H) x 9.5 in (W) x 10.8 in (D) will fit into most mobile operations (compact car, airplane, boat, or suitcase)

## Affordable.

Priced right to meet your budget as your main HF rig or as a second rig for mobile/portable operation.

## Convenient.

- Unique tuning speed selection for quick and precise QSY, choice of 1 KHz, 100 Hz or 10 Hz tuning.
- Electronic dial lock, deactivates tuning knob for lock on, stay on frequency operation.
- One memory per band, for storage of your favorite frequency on each band.
- Dual VFO system built in standard at no extra cost.

## Full Featured.

- 200W PEP input—powerful punch on SSB/CW (40 W out on AM)
- Receiver preamp built-in • VOX built-in
- Noise blanker (selectable time constant) standard
- Large RIT knob for easy mobile operation
- Amateur band coverage 10-80M including the new WARC bands
- Speech processor—built-in, standard (no extra cost)
- IF shift slide tuning standard (pass band tuning optional)
- Fully solid state for lower current drain
- Automatic protection circuit for finals under high SWR conditions
- Digital readout • Receives WWV • Selectable AGC
- Up/down tuning from optional microphone
- Handheld microphone standard (no extra cost)
- Optional mobile mount available

ICOM

**2112 116th Avenue N.E., Bellevue, WA 98004**
**3331 Towerwood Dr., Suite 307, Dallas TX 75234**

# IC-720A + IC-R70

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


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

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

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

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

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

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

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

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

**Audio Tone Control.** For easier listening/less fatigue.

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

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


IC-7072
Transceiver Unit

**Large Front Mount Speaker.** Full 3 watts of audio.

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

**Option for FM Reception.** Useful for 10 meter FM.

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

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

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

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

**ICOM**

**The World System**

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

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

# DX World

*(continued from page 25)*

dation, Northern California DX Club, Redwood Empire DX Association, Western Washington DX Club, Kansas DX Association, Kansas City DX Club, "Westlink Report", **Amateur Radio Action**, *The DX Bulletin*, *DX News Sheet* and *The Long Island Bulletin*.

After procrastinating these past years, I finally broke down and bought a new radio. My FTdx560, almost 13 years old (and tired), was restricted to transceive operation, except for a shift of only 5 kHz for split operation. After working the Clipperton DXpedition by swishing my VFO between spots, (not while transmitting, of course), I was able to work them on two bands, but only CW. Working DX that way tends to make you high-strung! Now, I have a brand new IC-740 with an automatic antenna tuner to add to my station. I probably will keep the old Yaesu as a backup rig. Very 73, de John, N6JM. □

••••••••••••••••••••••••••••••••••••

*Please*
send NEWS and PICTURES to
*Worldradio*

# How to figure out WWV data

**Robert Zimmerman, W8ZM**

When you listen to WWV at 18 minutes after the hour, do you wonder about the data that is reported and how to use it? A comment on the Dayton net (14.270 MHz) as to what these meant started a request to Radio Station WWV as to how the indices were obtained. A booklet #432 on NBS time and frequency was received along with data on how the indices were formulated. Much of the time and frequency chart data is published in the ARRL Handbook, but information on how the above indices are figured is not generally published.

The Solar Flux, or first figure broadcast from WWV, is a reading of flux units ($10^{-22}Wm^{-2}Hz^{-1}$) measured at 2800 MHz (sun radiation) at local noon, 1700 GMT at the Algonquin Radio Observatory at Ottawa, Canada. Higher sunspot activity causes a rise in the flux figures. Example: A figure of over 200 gives generally good propagation up to 50 MHz with good band openings. As the solar cycle decreases, the figures will soon drop to 100 or lower, and even 10 meters will not be open.

The "A" Index (sometimes referred to as the Aurora Index) is derived from eight successive three hourly "K" indices and gives an indication of how disturbed the geomagnetic field (our signal reflective layer) has been over a 24-hour period (GMI). This index is that observed at a Fredericksburg, Virginia station. Figures higher than 20-25 generally will indicate that an Aurora can be observed at someplace in the world.

The "K" Index is a quasi-logarithmic index of geomagnetic activity over a three-hour period and ranges from 0 (very quiet) to 9 (very disturbed). It is obtained by determining the maximum deviation from the quiet day curve of the most disturbed component of the field. The "K" index reported is that observed at the Boulder, Colorado station. It is possibly the most useful for a quick observation, especially when the index is changing and you wonder what the bands are doing.

Following the WWV figures has been most interesting on a daily basis, especially when solar flares occur and the geomagnetic field acts up immediately followed by a storm level condition about 24 hours later. VHFers can look for Aurora DX conditions by being acquainted with what to look for in these figures. The weekly propagation bulletins broadcast on Mondays from W8AW will also tell you what's happened and predictions of things to come. Why not use all this free information to help your communications?

For further information or a copy of the NBS special publication #432, contact: National Bureau of Standards, Radio Station WWV, 2000 East County Rd. 58, Fort Collins, CO 80524.

*—RF Carrier, Dayton, OH* □



# Killeen visits Killeen

Theron "John" Johnson, KA5ACT, of Killeen, Texas made a discovery in October 1981 that resulted in a very special visit to his town. The discovery occurred when John received a QSL from Tony Cushnahan, GI4ELQ, saying there was a Killeen, Ireland about 20 miles from Tony's QTH. Ten months later, in August 1982, Colum Killeen visited the residents of Killeen, Texas.

Colum is the great-great-greatnephew of Frank P. Killeen, for whom the city of Killeen, Texas was named 100 years ago. KA5ACT discovered members of the Killeen family living in the old homeplace in Claremorris, and was instrumental in arranging Colum's visit. (Colum had been on a summer student work-study program in Kansas City, Missouri prior to his visit, so spent only a few days in Killeen.)

Colum's hometown of Claremorris has been designated a sister city to Killeen, Texas.

— *Information from* **Killeen Daily Herald**, *submitted by Bob Dymond, N6APW* □

# AWARDS

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

This month I would like to present to you the current DX awards series offered by the International Amateur Radio Society (IARS). The following applies to all of the applications for IARS awards.

1) Available to licensed amateurs and SWLs worldwide.

2) The IARS "GCR" (General Certification Rules) applies to all applications. GCR indicates that all applications must be certified correct by your local radio club, two licensed amateurs or a notary public, where they indicate that they have viewed all of the cards offered as credit toward the award and that the log extract is accurate.

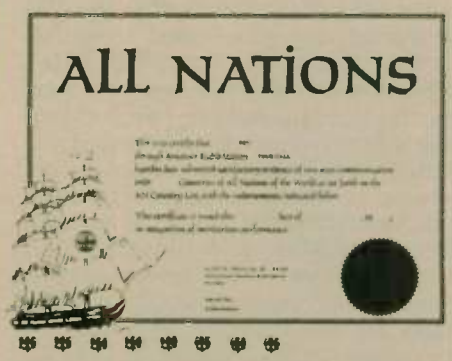
3) A log extract must be prepared listing all of the contacts offered as credit in alphabetical order by prefix. The extract should also include the following information regarding the contact: date, time, call sign, frequency and mode.

4) Requests for band or mode endorsements must be made at the time of your original application and supporting data must appear on your certified log extract.

5) The applications fee for each award is $4, which should be included with your application.

6) All applications should be sent to: International Amateur Radio Society, P.O. Box IARS, Glendale, CA 91206-7609.

7) Country lists for these awards are available from the IARS for your SASE.




### All Nations (AN)

This is the IARS's form of DXCC. The basic award is issued for confirmed contact with at least 100 different countries as per the AN country list, which follows closely — with a few exceptions — the listing for DXCC. The award measures 11″ × 14″ and is printed on a parchtone bond. Endorsement seals are available for countries confirmed to 350. The AN honor roll listing level is 275.


### Islands of the World (IOW)

What All Nations is to countries, Islands of the World is to islands. The basic award is issued for confirmed contact with at least 100 island locations as per the IOW country list with endorsement stickers for levels up to 350 confirmed islands. The award measures 11″ × 14″ and is printed on a fine parchtone bond.

### The Pacific (TP)

The basic award is issued for confirmed contact with at least 60 Pacific locations (countries), as per the TP country list. The award measures 9″ × 12″ and is printed on fine parchtone bond.

### The Caribbean (TC)

The basic award is issued for confirmed contact with at least 40 Caribbean locations (countries) as per the TC country list. The award measures 9″ × 12″ and is printed on a fine parchtone bond.


### The Mediterranean (TM)

The basic award is issued for confirmed contact with at least 20 countries, as per the TM country list. The award measures 9″ × 12″ and is printed on a fine parchtone bond.

### The Indian Ocean (IO)

The basic award is issued for confirmed contact with at least 30 countries as per the IO country list. The award measures 9″ × 12″ and is printed on a fine parchtone bond.


### The UN Award

The basic award is issued for confirmed contact with at least 100 of the member nations of the United Nations during the periods of their affiliation with this agency. The award measures 9″ × 12″ and is printed on a fine parchtone bond. To obtain a country list, we suggest you consult your encyclopedia.

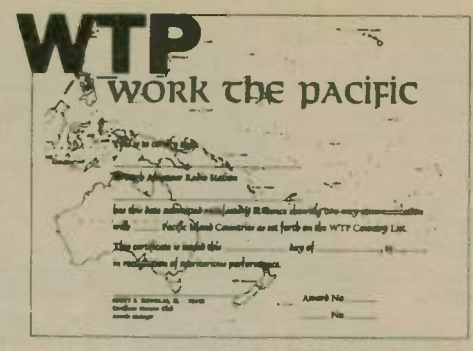
Here are some of the DX awards offered by the Certificate Hunters Club, an affiliate of the IARS. The same rules apply as for the IARS awards.

### Work the Pacific

The basic award is issued for confirmed contact with at least 30 locations as per the TP country list. The award measures 10″ × 13″ and is printed on a fine parchtone bond.

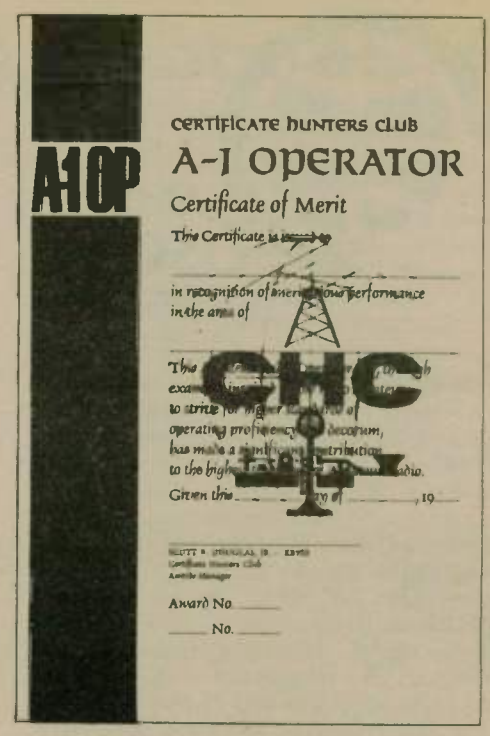
### Work the Caribbean

The basic award is issued for confirmed contact with at least 20 locations in the Caribbean as per the TC country list. The award measures 10″ × 13″ and is printed on a fine parchtone bond.




### A-1 Operators Certification of Merit

Issued by the IARS and CHC, upon nomination by the amateur public, to deserving amateurs who receive at least three nominations for excellence in various areas of the hobby such as CW; phone operation; community assistance with RACES/ARES, etc.; clubs; Elmering, etc. There is no charge for the award, but your letter of nomination must be specific as to why you feel the nominated amateur should receive it. □




## Michigan's Earn An Achievement Award

1983 will be the 25th year that amateurs have had their own program to publicize Michigan and its products. As in the past 24 years, the governor will award Achievement Certificates to amateurs who take an active part in telling the world of Michigan's unlimited resources, opportunities and advantages.

Certificates are awarded on the following basis:

1) A Michigan amateur submits log information and names and addresses (if possible) of 15 or more contacts made to out-of-state or DX amateurs with information regarding Michigan.

2) An out-of-state amateur (including Canada) submits log information and names and addresses (if possible) of at least five Michigan amateurs who relate facts to him about Michigan.

3) A foreign amateur, excluding any resident of Canada, submits the call letters and name/address plus log information for at least one Michigan amateur who has told him about Michigan.

4) Only QSOs made during Michigan Week, 21-28 May, will be considered valid.

All applications for certificates must be postmarked by 1 July 1983 and mailed to Governor James Blanchard, Lansing, MI 48902.

*State Bird:* Robin; *State Fish:* Trout; *State Flower:* Apple Blossom; *State Tree:* White Pine; *State Stone:* Petoskey Stone; and/or local facts of which you are aware.

*Throughout Michigan Week, spread the word to others about this award.* □

## Mobile champ

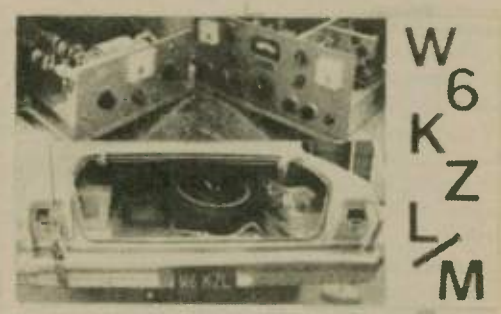
**Lenore Jensen, W6NAZ**

The first Worked All Zones *mobile* award issued in this country has gone to Glen Tillack, W6KZL, who did it all on 20-meter phone.

Glen's a member of the International Amateur Mobile Society, headquartered in London, and holds their Mobile Century Award for 285 countries confirmed as well as their WAC mobile-to-mobile. He also displays the number one Worked-the-World 200 from 73 Magazine.

In other words, he's a devotee of automotive Amateur Radio. He still uses the prototype of the linear that he put on the market for Master Mobile 22 years ago, using a pair of 811As with about 500 watts DC input.

Although the original exciter was remote-controlled and homebrewed, he's now switched over to an ICOM 730 and it's all installed in a Honda Civic. For antenna, W6KZL sports a Master Mobile UHQ coil with a 3-foot base and a 5-foot whip. Obviously it works very well!




**Glen Tillack's QSL, showing his successful mobile installation which earned WAZ mobile.**

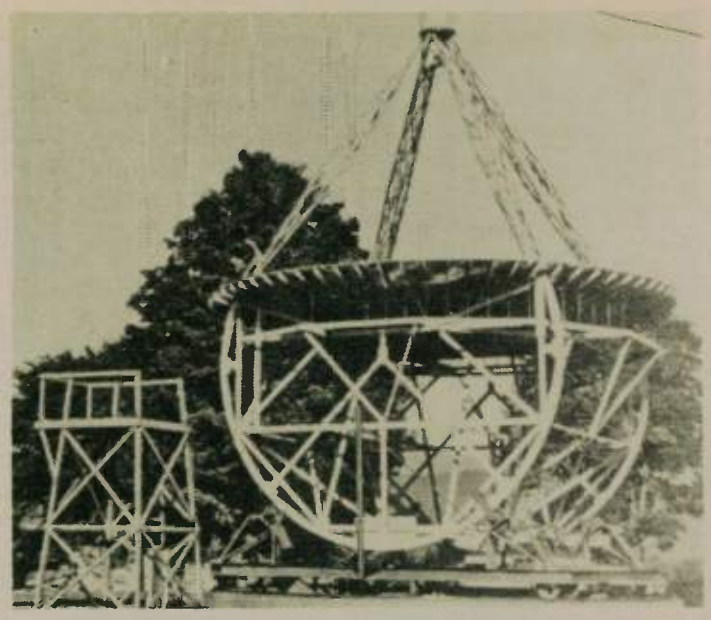
But he's quick to express thanks to others. "Without the great help from other hams, in the finest amateur spirit, I could never have earned these awards," says Glen.

"By the way," he continues, "I've never operated mobile more than 90 miles from my San Fernando Valley home."

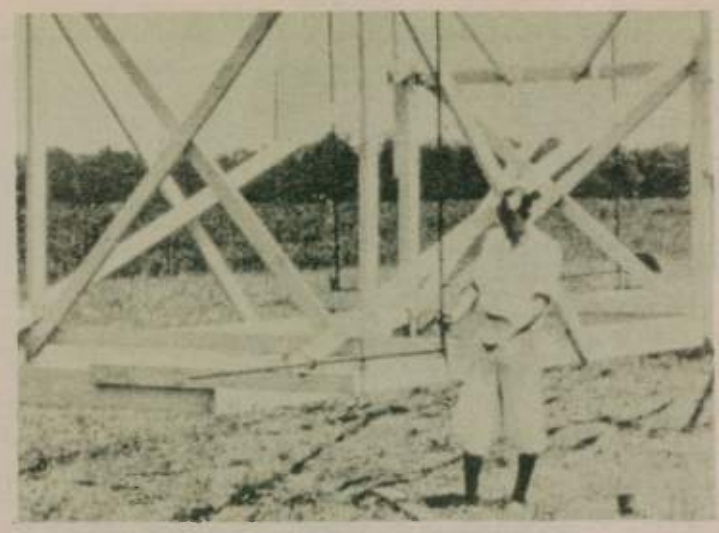
He also was the second W6 to make the top of the ARRL DX Honor Roll in 1979, following (of course!) W6AM. □

# AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX



**Grote Reber's 30-foot dish, which was originally installed in his backyard and now is in front of the NRAO in Green Bank, West Virginia.**



**Karl Jansky, with his crenelated antenna array. This is the antenna that, when pointed toward a source of radio noise, produced a signal that increased in the direction of its axis and located the source. This antenna can be said to have started the field of radio astronomy.** ***(Bell Lab photo)***

## 50th anniversary of radio astronomy

Amateur Radio operators will have an opportunity to make contact with the National Radio Observatory (NRAO) Amateur Radio station, K8HUH, to celebrate the 50th anniversary of Karl Jansky's discovery of the fact that there were radio signals coming from outer space. On 7-8 May, the station will operate on the Amateur Radio 15-meter band, using Jansky's reconstructed antenna. The frequencies will be 21.03 and 21.13 MHz CW and 21.36 MHz SSB.

On the following weekend, amateurs will be invited to operate through the huge radio telescope dish at Green Bank, West Virginia, by bouncing signals off the moon. EME transmissions will use the 70cm band to access the 140 ft. dish at NRAO; 1000 watts ERP will probably make it. This is the power level expected to be effective in accessing the Phase IIIB AMSAT/OSCAR satellite, which is to be launched the first week in June. By the way, this is another delay in the Phase IIIB launch date.

The EME schedule is as follows: 13 May/2200 UTC—14 May/0115 UTC; 14 May/1200 UTC—15 May/0215 UTC; 15 May/1245 UTC—16 May/0330 UTC. A total of 31 hours of activity is scheduled. Participating amateurs associated with NRAO will be WB4ZJO, N4HTL, K8HUH, W3IWI, KA8QIJ, WA1UAB, N4FWA, K2AOE, VK2BMZ, N4HTK, W4OZJ, KA8NQR and W8MIF.

## About Karl Jansky

Karl Jansky was a young engineer at Bell Telephone Labs who drew an interesting assignment. He was familiar with radio as an Amateur Radio enthusiast, so enjoyed the opportunity presented to him. He was to find out why the then newly inaugurated transatlantic radio telephone circuits were so noisy.

To accomplish the tests, Jansky built a linear antenna array on the diametral line of a circle. The array was a parallel pair of single wire elements, each of which formed a crenelated line (like a square wave) standing vertically. It was called a Bruce antenna and was 100 feet long.

The entire array was mounted on a set of Ford axles and wheels so that it could be rotated. (This Ford was called the Tin Lizzie.)

As a result of Jansky's observations, he came to the conclusion that there were three sources of radio noise that could interfere with radio signals. One of these, he definitely established, was due to lightning flashes which increased in level when his antenna was lined up along an axis to the lightning source. A second source, which he was able to identify positively, was due to the sun. When Jansky lined up his antenna so that it was on an axis in a line to the sun, the noise increased dramatically.

It was the third noise source that gave Jansky the opportunity to make a dramatic discovery, which he later wrote about. As he described the third noise, "It was a hissing sound of unknown origin."

Following this discovery and discussions with his colleague — A.M. Skellet, who was familiar with astronomy — the conclusion was reached that the "hissing sound of unknown origin" originated in the constellation Cassiopoeia in our Milky Way. Thus was born the field of radio astronomy.

Since these events occurred in 1928, the 50th anniversary celebration is belated. It seems what the celebration is honoring is Jansky's first disclosure of his discovery in a 1933 paper in the proceedings of the IRE, predecessor of the IEEE.

Another amateur who became fascinated with the work of Karl Jansky was Grote Reber, who built what probably was the first radio astronomy dish in his backyard. It was 30 feet in diameter, and with it he began mapping the sky for radio sources, prior to World War II.

Reber's dish is now at the entrance to the NRAO in Green Bank, West Virginia. We presume that Jansky's crenelated antenna will become part of the scenery around Green Bank, after the commemorative.

## America's first flight

The first flight by an American was that of a 13-year-old boy. Edward Warren ascended in a hot-air balloon from Baltimore on 24 June 1784.

Senator Charles McC. Mathias, Jr. is the chairman of the U.S. Organizing Committee for the celebration of the Air and Space Bicentennial, honoring — among others — the volunteer flight of Edward Warren, the first manned flight in the balloon.

On 7 February, President Reagan proclaimed the Air and Space Bicentennial, which will continue through June 1984. An example of the activities being planned throughout the year, is the May 15th special color supplement which *The New York Times* will publish on 15 May. The issue will report the story of flight from 21 November 1783, when Montgolfier's first balloon flight occurred.

Skitch Henderson, an aviator and veteran of the Eagle Squadron, is organizing an Air and Space Gala at the Kennedy Center on 15 May in Washington D.C., and one in Hollywood for November 1983.

Many of the events should be opportunities for participation by amateurs. For example, in Washington, D.C. in July, the National Air and Space Museum will recreate Montgolfier's first balloon flight. There ought to be a ham aboard!

You can become an air and space supporter. Write to: Air and Space Bicentennial, U.S. Organizing Committee, 1575 Eye Street NW, Washington, D.C. 20005.

The next shuttle flight is expected to take place in May. When it does go, the Jet Propulsion Laboratory Amateur Radio Club, on W6VIO/R, will be there with shuttle audio, barring unforeseen developments.

No official word has yet been heard about astronaut Dr. Owen Garriott, W5LFL, being permitted to operate an amateur station aboar STS-9, but those working on the matter are encouraged and believe it will come to pass. This is the flight on which the projected ESA SPACELAB is to fly, so ESA must also approve the proposal. Owen's experiment would be on SPACELAB.

## AMSAT membership

As of 15 April, membership in AMSAT has increased to $24 (see ad, page 31). ☐

PHOTO BY MICHAEL CLAPP

# 1983 JUNE 3-4-5

# OREGON STATE HAM CONVENTION

P.O. Box 920 — SEASIDE, OR 97138

THIS IS AN ARRL SANCTIONED CONVENTION

• *Seminars* •
**DX • FM • FCC • Packet Radio**
**NTS • Cable Systems**
**NICAD's • Antennas • ARRL**

• Banquet Speaker •
**Mr. Richard Underwood**
**NASA Johnson Space Center**

**ARRL GUESTS**
**Larry Price, Vice President**
**Dale Clift, League Lines, Legal Dept.**

**COMMERCIAL AND DEALER EXHIBITS**
**FLEA MARKET**
**BUNNY HUNT**
**FCC TESTING**
**YL & HARMONIC ACTIVITIES**

*There will be an extra Prize Ticket for each person registering before May 15th.*

• *Prizes Galore* •
**ICOM IC 730**
**HEATH WX STATION**
**YAESU FT 230R**
**KENWOOD TR 7930**

## REGISTRATION

REG. NR. _____
(off. use only)

• Please make all checks payable to:
OREGON STATE HAM CONVENTION

• MAIL TO: OREGON STATE HAM CONVENTION
P.O. Box 920 - Seaside, OR 97138

NAME _____ CALL _____ DATE _____

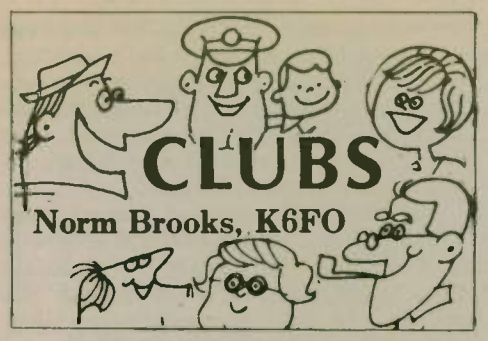
ADDRESS _____ CITY _____ STATE _____ ZIP _____

Single Reg _____ $5.00
Couple Reg _____ $7.00
Teens _____ $2.00
Children 12 and under FREE
Flea Market _____ $5.00 per table per day
_____ $8.00 for 2 days

Banquet $13.50 per person
Dinners: Salmon _____ Prime Rib _____
Please put number and choice

COME TO THE BEACH AND
HAVE A GREAT TIME FOR THE WHOLE FAMILY.
*SEE YOU THERE!*

FOR MOTEL RESERVATIONS — Oregon Toll Free 1-800-452-6740 — Others 1-503-738-8585




**Leisure World Amateur Radio Club**

W6LY is the club station of the Leisure World Amateur Radio Club, located in the retirement community of Leisure World about six miles east of Laguna Beach, California. Leisure World has a population of some 22,000 retirees. The amateur population is over 40 amateurs, which is amazing considering the fact that until last year outdoor amateur antennas were prohibited. The club presented a complete Amateur Radio emergency program to the Board of Directors. They not only encouraged our efforts, they supported us with funding for additional equipment and then gave us permission to erect certain types of outdoor antennas. This was a major accomplishment and the result was well worth the effort. Many of us now operate our own rigs in our houses.

Enclosed are pictures of our station and our beam on our tower on the roof of Clubhouse One. Maps of the world and the United States, both well pinned, cover the walls over the operating positions.

QSL cards cover one wall. The other two walls of the shack contain windows looking out into two major walkways of the clubhouse so our station is always in the public eye. Frank Rooney, W6PBT, is our station manager and keeps W6LY in good working order and free of clutter. Lou Lowry, W6PNS, keeps the station in daily contact with WESCARS and handles a lot of phone traffic into and out of Leisure World. We have a duty schedule whereby various members of the club are responsible for operating W6LY on different days of the week. We hold a radio drill every Thursday night on 146.55. We have a 4500 watt gasoline generator to run the entire station in case of Edison failure.

We also have an alternate base station in the radio dispatch office of Leisure World Security. This consists of a 2-meter transceiver with a Ringo Ranger on the roof of the office.

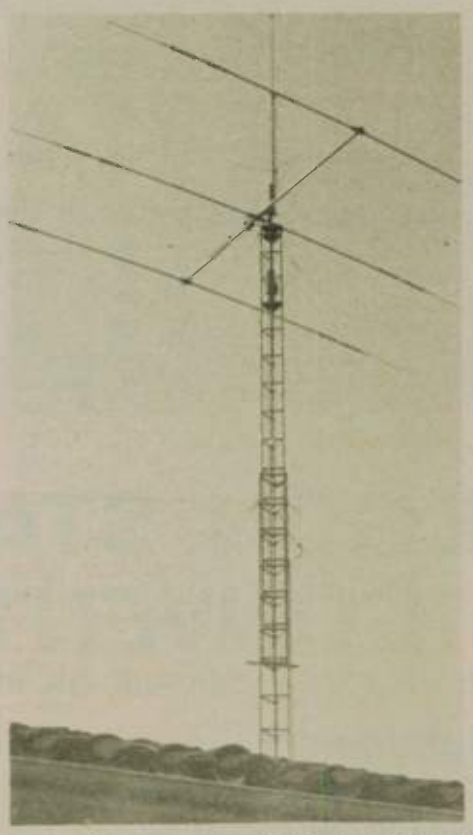
We believe W6LY is one of the best equipped amateur emergency radio centers on the West Coast. Our annual operating report explains how active we are in contact with other disaster groups and agencies. We are proud of our operation and will continue to support our community.

Sincerely,
James F. Abbott, W6FAA
Emergency Coordinator, LWARC

**50 year anniversary**

Hamfesters Radio Club was formed in 1933 by a small group of amateurs in Chicago. First meetings were held in the members' homes, but by 1937 the club had grown to about 200 and secured a regular meeting room.

The famous Hamfesters Picnic has been held almost continuously through the



**Antenna of the Leisure World Amateur Radio Club. Up until last year, outdoor amateur antennas were prohibited in the development. Outstanding emergency service by the club got the prohibition lifted.**

**Club station of the Leisure World Amateur Radio Club, Laguna Hills, California**

# 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.
Wawona 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.

**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 Thursday/monthly - 1930

**Silverado Amateur Radio Society - (SARS)**
Silverado Jr. High School
1133 Coombsville Rd., Napa, CA 94558
Bill Williams. N6EIH - (707) 224-3520
1st Tuesday/monthly - 7:30 p.m.

**Simi Settlers ARC (SSARC)**
PO Box 3035, Simi Valley, CA 93063
3rd Thursday/monthly - 7:30 p.m.
Bank of A. Levy (across Larwin Sq.)
K3HZP/R 147.165/.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 - 8 p.m. rptr 146.13/73

**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 986, 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.

### 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.

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

**Radio Amateur Megacycle Society**
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.

### TEXAS

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

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

### 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

years. Many people believe the word "Hamfest" was coined by club members to describe these get-togethers, and the name "Hamfesters" naturally followed.

During 1983 we will be celebrating our 50th year of service to amateurs in the Chicago area. Please look for our club station W9AA on all bands. We will be sending a special QSL card for this anniversary year. QSL to: Hamfesters Radio Club, P.O. Box 42792, Evergreen Park, IL 60642.

## OSCAR

Jim Andrews, WA4JWX, sends the following on the Osceola County Amateur Radio Club, Kissimmee, Florida:

The club's name makes a fine acronym — OSCAR. They meet at 7:00 p.m. the second Monday of each month in the Community Room of the Sun Bank Building in St. Cloud, Florida.

The club operates a repeater, W4SIE/R, on 146.19/79 MHz at St. Cloud. The Osceola County Emergency Amateur Net (OCEAN) meets on the repeater every Monday night at 7:30 except club meeting nights.

Amateurs visiting the area are invited to the club meetings and are invited to use the repeater.

## Club program

Marvin A. Mahre, W0MGI, the Saint Paul Radio Club Inc.'s editor, St. Paul, Minnesota, sends in an excellent suggestion for a club program:

"Here is a suggestion for a program that could be presented at most any Amateur Radio club in the USA because there are many active/retired railroad telegraphers (American Morse operators) still knowledgeable in their special skills.

"Schedule a program entitled 'Railroad Telegraphy & Ham CW Compared.' Get an old railroad telegrapher (station agent, train order operator, etc.), maybe even one who is a licensed ham, to demonstrate the click and clack of the American Morse as compared to the dits and dahs of CW. Many of them have a portable key, relay and sounder that runs off batteries that can be set up at the meeting for a live demonstration. Let the members try sending and learning a few letters of this code. All railroaders have stories of their active employment days involving the use of the key. These are interesting to the whole membership, even though they may not be 'radio-related.' If you can get two operators who can send and copy the railroad code, have them send to each other and copy the messages on a blackboard for all to see and follow the clicks and clacks.

"The program can be expanded further by showing how their system had 'full break-in' and how they got automatic time signals off the wire. The program can expand further depending on the knowledge and ideas of the old railroader.

"We had such a program at one of our recent meetings and it was enjoyed by all in attendance."

## Stimulating on-the-air activity

The Santa Barbara Amateur Radio Club, Santa Barbara, California, has established an Intra-Club Contest (ICC) to encourage local member participation in national contests. Here are the published rules:

All Intra-Club Contests are held during national contests, hereafter referred to as "official contests," and the sponsors of these national contests are the "official sponsors." Participating stations are encouraged to enter both the "official" and Intra-Club Contest.

**Eligibility:** The ICC is open only to SBARC members operating under their own call signs. It is preferred that each operator operate from his or her own fixed station location. Although not prohibited, guests — or mountain-topping — operation is discouraged. All participating stations must be Single-Operator only. That is, one operator performs all station functions without any assistance.

**Operating:** All standard contest rules will be in force, with the official sponsor's rules having precedence. All stations must operate in accordance with the privileges of the operator's license class. It is advisable to write to the official contest sponsor well ahead of time to receive a copy of their rules and logging materials. If this is not possible, then the rule format used in the ARRL DX Contest is a standard reference.

**Logging:** Logging should be done on the log form provided by the official contest sponsor, or a facsimile thereof. Dupe sheets should be turned in along with logs. Either originals or copies are acceptable for ICC purposes.

**Scoring:** To distill the competition to one of skill, a handicap system has been added to the ICC version of the contest. A station will fall into one of five different classes. They are:

*Class "A" multiplier of 1:* High power (250 watts input or more) *and a* directional antenna on one band or more.

*Class "B" multipier of 2:* Choice of one — high power (250 watts input or more) *or a* directional antenna on one band or more.

*Class "C" multiplier of 2.5:* Same as above, but limited to General Class only.

*Class "D" multiplier of 3:* Low power (250 watts or less input) and the use of a non-directional antenna limited to General Class. Advanced and Extra Class use Class "B". Exception: Advanced and Extra Class "QRP" less than 10 watts use Class "D".

*Class "E" multiplier of 5:* Low power (250 watts input or less) and a non-directional antenna. Limited to Novice and Technician only. Other class license use multiplier of 2 (General, Advanced, Extra).

Each class or station will be assigned a number multiplier according to the operator's license class, which is multiplied against the total official contest score. These are:

**Phone only:** Class "A" x-1 all license classes; Class "B" x-2 all license classes; Class "C" x-2.5 General Class only; Class "D" x-3 General, Advanced and Extra Class "QRP".

**CW only:** Class "A" x-1 all license classes; Class "B" x-2 all license classes; Class "D" x-3 all license classes; Class "E" x-5 Novice, Technician only. All others use Class "B".

**Entries:** Any contest that has been divided so as to have separate dates for the phone and CW portions will be considered separate contests. An operator may enter both portions.

Logs, dupe sheets, score sheets and applications must be received or postmarked by the contest committee within two weeks of the last day of the contest. These may be delivered to the contest chairman or mailed to the club address. □

If your club is involved in any emergency situations, send the story and pictures to **Worldradio.**

See your group in print and help your fellow amateurs with shared experiences. Your story may help others be better prepared.


### Nets, lingo and rigs

Maritime mobile nets are one of the best ways to consistently stay in touch with the outside world when you are out on the high seas or cruising in remote areas. Last month we listed several nets that encourage mariners to check in daily with position reports and weather traffic. The hard-working net control operators keep a tight rein on the net and encourage everyone to get acquainted with the way the net operates.

Take, for instance, the Manana Net that is run by Gil Smith, W6FSF. This net covers the Pacific Coast, at 1900 hours Zulu. (In case you lost your GMT chart, this is 11:00 a.m. Pacific Standard Time.)


**Gil Smith, W6FSF, Manana Net Control**

Several alternate net control operators assist Gil with the operation, such as Bob McCutcheon, WA6VQD; Gene Hansen, W5HWJ; Bill Jones, Sr., K6IKI; and Kermit Goettsche, KB5HA. These hard-working net control operators are always eager to take new check-ins. However, you should do a lot of listening before jumping right in the midst of a net. If you are a newcomer, wait until they call for visitors, then give your call sign phonetically. Stick to plain English except for common understood words, such as "contact" (I wish to talk to that person), "break-break" (I have an emergency), "long and short haul" (long distance or local telephone call), or "recheck" (back on frequency for more traffic).

Be careful with your phone patch calls. You will find that your call may be terminated if you begin discussing airline reservations, hotel accommodations, routine stores or equipment for your vessel, and other commercial marine frequencies. The licensee of the station should also instigate and terminate the entire set of communications if someone else talks over the microphone aboard the boat. Although Part 97.84 does *not* specifically prohibit another operator directly under the supervision of the licensee from giving the call sign, it's generally better practice for the licensee to give his or her own call sign. This way there is no doubt that the licensee is indeed present to monitor compliance with the rules as a third-party talks over the microphone.

Most marine nets are friendly. Some are not. I listened in on one the other day on 15 meters, and I swear it was my old first sergeant who was running the darn thing! It's too bad when control operators have little or no patience with newcomers to their nets. My hat is off to Gil and the gang for making newcomers feel welcome, yet still maintaining a very "tight ship" as the net is rolling along for all mariners on the Pacific Coast.

Anyone else out there with news on nets that you may wish printed here?

Yacht clubs are also getting in on the net picture. The Long Beach Yacht Club Radio Club, one of the finest facilities on the Pacific Coast, is on the air daily to assist mariners who may have special needs to communicate ashore. A complete setup of amateur and commercial marine sideband gear, as well as ham and marine VHF equipment, makes the Long Beach Yacht Club Radio Club facility one of the best heard stations on the Pacific Coast.

**ICOM 720A with Cubic tuner**

### New gear reviews

The new Kenwood TS-430S high frequency transceiver still continues to be my No. 1 favorite rig for maritime mobile installations. Prior to this 430, the ICOM 720A was the best thing around. Now it's second best, but it still continues to be an excellent performer.

The Kenwood 430 is priced significantly less than the ICOM 720. The Kenwood has many more new features than the older ICOM. Eight-memory channels are handy for storing popular frequencies. These memory channels may also be scanned! There is even a memory position for split-channel operation.

The new Kenwood 430 will search between two entered frequencies. The search speed may also be increased or decreased on the top of the unit.

Squelch is a nice way to monitor a fairly quiet frequency on 10 or 15 meters between calls. An audio notch filter will easily kill any annoying whistle from a tuner-upper, too.

Dual VFOs allow for split-frequency operation. And yes, by removing plug No. 10 on the RF board, you can enable transmit on any frequency in the Beacon Band up to 30 MHz. Remember, this rig is not type-accepted for maritime use on marine channels. Only in an emergency would you transmit to the Coast Guard, marine operator, or to other vessels using SSB commercial radios.

The set will even accommodate an FM board to operate on 29.6 MHz. You can even run split for repeaters near 29.6 MHz.

The microphone with its frequency changing capabilities is also a nice feature for maritime mobile operation. Those folks at Kenwood were really thinking when they came up with this rig. Everything is functionally laid out into a nice, neat package. Almost everything. Evidently, whoever designed the push button switches must have been thinking of the set upside down. The lower sideband button is above the upper sideband button. One would think that upper sideband is above lower sideband!

**Typical marine installation with ICOM 720**

Bob at ICOM promises some new competition to the Kenwood 430S shortly. Knowing ICOM's reputation, I'm sure it is going to be a dilly. ICOM also has, for the mariner, a new antenna tuner called the MT-100. We will give you a full rundown on it next month, but our preliminary tests indicate that this dual meter tuner is bound to be a winner aboard any boat. It will handle well over 100 watts and works with either coaxial cable feeds or a long-wire antenna, such as backstay. We'll give you more comments on our tests of this unit next month, but for the time being, it receives one of our highest ratings!

### Over-the-water tests

We are still continuing to test the half-wave AEA 2-meter telescopic whip and the ⅝-wave VoCom telescopic whip. Our first test indicated a decided advantage using the AEA half-wave antenna. Subsequent tests indicate that the VoCom antenna will perform as well as, if not better than, the AEA antenna when a hand-held with a good groundplane (metal frame) is used in the tests. That makes sense. Five-eighths wave antennas require a groundplane; half-wave end-fed antennas do not. Although our testing is still going on, I have received some correspondence indicating that a good groundplane below the VoCom will yield similar, if not better, over-the-water range than the telescopic AEA whip.

Any way you look at it, both whips offer a tremendous amount of range increase over the water when compared to rubber duck antennas. If you operate your HT on your boat, consider a telescopic whip.

We are also testing hand-held slip-in power amplified/charger/booster speaker assemblies. These devices allow you to drop in your HT and simultaneously charge the batteries, increase power output, and give you more audio gain. The ones we have tested may be used either on the boat, in a runabout, or in your vehicle. It also can work at home off of a 12 volt DC power supply.

Both VoCom, Prospect Heights, IL 60070, and Trilectric Corporation, Las Vegas, Nevada, produce these devices and each one is right now undergoing tests and evaluation here on the West Coast.

**Double-check your connections.**

That's it for this month. We hope everyone has an enjoyable summer sailing season. Let's hear from you on your evaluation of products taken out for a sea trial. Also, if you have any net news, pass it along and we will publish it here.

**New marine ham classes from Gordon West, WB6NOA**

### Marine ham classes

We have two scheduled marine Amateur Radio classes for this spring. If you have friends who want to enter the world of Amateur Radio for cruising, have them contact me regarding two upcoming classes in Southern California.

A beginner's class (held Monday evenings) for Novice, Technician and General begins on 18 April at the California Yacht Club in Marina Del Rey.

A beginner's class (held Wednesday evenings) for Novice, Technician, and General begins on 4 May, at the Bahia Corinthian Yacht Club in Newport Beach. Tell a friend!

Good cruising! □

# Pitcairn

*(continued from page 4)*

lobsters cost us at the market, she reminded me that her church faith prohibited most Pitcairners from eating seafood that does not have scales. Hence, the crayfish bait. I told her that if I ever got to Pitcairn, I would love to eat bait. Sure enough, in February of 1980, I — as a passenger on the *Sagafjord* — stopped at Pitcairn, and would you believe it, Clarice had gone lobster hunting the day before, cooked the lobsters that night, and brought me a whole sackful. My table on the ship that night was the only table having lobsters.

This tempts me to go again on the *Sagafjord* when it stops off for a few hours on 30 November 1983. Very few amateurs have ever set foot off Pitcairn, and anyone interested in the above sailing, let me know and I'll get information to you. (My address is 10861 Langdon Ave., Mission Hills, CA 91345.) Sure, I'll have my rig with me again for some maritime mobiling at sea.

Now, a thank you to the following donors who have kept the generator fuel fund going to keep Pitcairn on the air.

## Pitcairn generator fuel fund

Vince Oster, WD0EVD Rapid City, SD
H. Gordon Kind, M.D., W4XI Tuscaloosa, AL
Carl & Leona Wallace, K6YEO-WA6OHB La Jolla, CA
Cary & Frances Haag, KA7KDB-KA7KIS Hillsboro, OR
Al Matthews, WA4MSB Titusville, FL
Robert Whitford, WA7STA Ellensburg, VA
Ray Lottie, K0YXU Minneapolis, MN
Bud Roach, N8CRI Redford Township, MI
Jay & Cheryl Ollerenshaw, WB7SRU-KA7HIO Portland, OR
Patti Miller, WA7GVB Yakima, WA
Don Bohannon, WB5TPW Springhill, LA
Terry Hathaway, KB9SV Libertyville, IL
Lawrence Cocharan, K8MC Toledo, OH
James Christensen, WB7TIJ Portland, OR
Bill McConnell, N9US Palatine, IL
Joe Michaud, WA7OEM Portland, OR
Dan Pugh, WA6HYB Oceanside, CA
Bill Mauzey, W6RT Los Angeles, CA
**Total $118.00** □

# FCC Highlights

*(continued from page 9)*

•

Mid-U.S. amateurs have discovered bootleg operation in the lower portion of the 2-meter band.

"Without discussing it on the air, they formed a turkey-hunt committee and went after the offenders. Within a few weeks, they had pinpointed the individuals involved and turned over the information to the nearest FCC office. Following up, the FCC verified the information, determined that none of the parties were licensed and sent letters to each 'jawboning' them.

'Based on the reaction to the letters, the hams were able to determine that the bootleggers are part of a loose-knit, right-wing subversive group.

"This information was passed on to the FCC, which is taking the appropriate steps." (from the 3 March 1983 *ARRL Letter)* □

# Ham author publishes again

**Lenore Jensen, W6NAZ**

Ernest Lehman, K6DXK, has written another novel, just off the press. His newest is *Farewell Performance,* published by McGraw-Hill, and concerns the Hollywood scene he knows so well. He has been a top screenwriter for many years.

He also has another book out, a "trade paperback," entitled *Screening Sickness and Other Tales of Tinseltown,* a collection of humorous essays about the world of movie-making.

His previous novel, *The French Atlantic Affair,* included Amateur Radio in the plot. The book was later made into a television movie. □



# USQS/KM7Z

**Laryl Berry, KM7Z**

U.S. QSL Service, Inc. is the *FREE* non-profit QSL bureau for stateside QSLing. Run by KM7Z, the service is offered to all who wish to send QSLs to stateside amateurs. For information on how to use the bureau, send a SASE requesting info to: USQS/KM7Z, P.O. Box 814, Mulino, OR 97042.

Following is a sample of calls for which there are unclaimed cards on file. This list is just to indicate that there are cards that need to be claimed. We request that a #10 or a 5″ x 7″ SASE be kept on file to claim incoming QSLs. USQS is offered as a free service and is dependent on donations; your support is appreciated.

If you recognize your call here, or if you haven't already put SASEs on file, please send SASE to Laryl Berry, KM7Z at P.O. Box 814, Mulino, OR 97042.

| | | |
|---|---|---|
| AJ1G | N4GDH | KB7GF |
| AK1G | K4GFY | KA7GGP |
| KA1G | WA4GIJ | KA7GGP |
| KC1G | N4GLI | W7GHJ |
| KI1G | N4GMV | KA7GKF |
| KM1G | W4GN | KJ8G |
| KA1GBP | N4GNE | KK8G |
| N1GC | N4GQW | KS8G |
| W1GCI | W4GRO | KV8G |
| KA1GCS | KC4GS | KW8G |
| W1GD | AC5G | K8GB |
| KA1GD | KC5G | W8GBR |
| K1GDM | KG5G | KB8GC |
| W1GDU | KM5G | KA8GCD |
| KA1GER | KN5G | WB8GDO |
| AJ2G | KR5G | W8GEJ |
| KA2G | KS5G | K8GG |
| KF2G | KU5G | N8GG |
| KI2G | KY5G | W8GG |
| K2GC | W5GA | KA8GHO |
| N2GC | W5GB | W9GA |
| W2GCE | KD5GC | N9GB |
| KA2GCH | W5GDP | K9GBF |
| W2GD | K5GE | W9GBL |
| W2GDV | N5GE | KA9GCE |
| KA2GFE | AA6G | W9GDS |
| KC2GG | KB6G | W9GDT |
| K2GGN | KE6G | WN9GEV |
| W2GHK | KG6G | KB9GF |
| WA2GIY | KI6G | W9GFD |
| AB3G | KQ6G | W9GFR |
| AC3G | ND6G | KC9GG |
| KB3G | NE6G | KA9GGX |
| KE3G | K6GAO | WB9GHN |
| K3GA | N6GAU | K9GHP |
| K3GAU | W6GAZ | AG0G |
| KA3GAW | WD6GBB | KB0G |
| KA3GBK | N6GBP | KU0G |
| WB3GCG | KB6GC | N0GA |
| KA3GCU | N6GCC | KA0GAD |
| KA3GCV | AG7G | WB0GCJ |
| WB3GDA | KC7G | W0GCR |
| KA3GDK | KF7G | KA0GEL |
| W3GEZ | KJ7G | KA0GFA |
| W3GFB | KO7G | WD0GFA |
| KX4G | KR7G | WD0GFG |
| NO4G | KT7G | KA0GFK |
| NX4G | W7GB | W0GFQ |
| KA4GAV | KD7GD | KA0GFR |
| WA4GAX | K7GEX | WB0GGO |

# Happy Flyers
HAMS & PILOTS

"THERE IS NO LIMIT TO WHAT YOU CAN DO – IF YOU DON'T CARE WHO GETS THE CREDIT"

INTERNATIONAL COMMANDER, **Hart Postlethwaite, WB6CQW**
1811 Hillman Ave., Belmont, California 94002 (415) 341-4000
International Vice Commander, Paul Hower, WA6GDC
Box 2323, La Mesa, California 92041 (714) 465-5288

### Amateurs Radio's heroes

I received my license in 1962 and it never fails to amaze me as I continue to observe the things accomplished by my fellow ham operators. One can hardly tune across any Amateur Radio band, for any length of time, without finding some type of public service work being performed by a radio amateur. Interestingly, this public service tendency is not confined to one area, one state, one country or one sex. The type and caliber of individuals that are drawn to our so-called "hobby," appear to be such that public service and humanitarian acts are the rule, rather than the exception.

I spent time in New Zealand (ZL2TNY), speaking for their annual convention, and time in Canada with our Happy Flyers. The same spirit was continuously evident. I take great pride in my membership with the New Zealand Association of Radio Transmitters (NZART), and for being able to be a part of such a fine worldwide fraternity of superb individuals. You do much, without concern for glory or reward. A very small portion of you are recognized by articles in **Worldradio, 73 Magazine, QST**, etc. Since it is your nature to do the deeds for the immediate purpose at the time, often thanks is missed. Thank you, one and all!

Even though you do what you do because you recognize the need and are in a position to do it, we need to consider sharing more of what is done by fellow operators. Too few in government and in the general public are aware of the great and continuous public service values derived by the existence of the Amateur Radio Service. We need to "blow our own horns" more. We need to point out the difference between Amateur Radio and CB.

When you see or hear of some of these fine deeds, consider getting information about it to **Worldradio, 73 Magazine, QST**, your local press and TV/radio stations. If you feel you cannot do the situation justice, see if you can recruit someone else to help you get the good deed reported. The people involved in the media are always interested in newsworthy information. **Worldradio** kindly began running the HAPPY FLYERS column over six years ago, mostly to allow us to share information on the work we were doing in the field of direction-finding (DF) for Search and Rescue (SAR), and jammer hunting. Once I couldn't spell "columnist," now I are one! You might be surprised at how well you can report on something you admire.

### The heroes revisited

Some of the work donated for the good of the public and/or the total Amateur Radio fraternity continues long after the deed. Some of the benefits we enjoy today are the results of much hard work and concerted effort on the part of many who are no longer with us. One almost wishes we had a way to unearth their names and parade their deeds for **all** of us to see and appreciate. When you turn on your radio, give an occasional thought to those who helped make it possible. After one of our very bad California storms last February, a number of repeaters were damaged and off the air. While scanning the band, I heard a fellow complaining about the lack of sensitivity on his favorite repeater (which was still on the air, when others were not). He stated: "Looks like someone would get up there and fix this thing up." Naturally, someone eventually did get up there and donate *MORE* of their time to get things back to normal. Yet, how many of us think to thank those who continually travel up mountainsides (usually at their own expense), and give of their time so that we may enjoy the conveniences of crystal clear FM communications?

The same is often true of our radio clubs and other public service communications activities. How often do we hear complaints about the way things are being run, or the fact that something could have been done to improve our last function? Often, we fail to appreciate the work they *DID* accomplish and the time they spent doing what they *DID DO!* Often, we fail to realize how much better things might have been, had we ourselves become involved and helped include those extra things the other volunteers couldn't get around to.

### DF slide show

I would like to take this opportunity, to again thank all those who helped put together the HAPPY FLYERS' DF slide/sound show. This 30-minute film has been seen all over the world for a number of years now. It is loaned free of charge (postage only), and the lending library is handled by our faithful Vice Commander, Paul Hower, WA6GDC. I have my own copy and show it whenever I speak somewhere. My last operation contributed to stopping my speaking for almost a year. When I saw the film again, after a long period of hiatus, I marveled at the quality of this volunteer production.

I understood that Paul put in over 400 hours doing the beautiful illustrations and cartoons. Without them, it would have been almost impossible to present 30 minutes of technical information about the RF environment and its effect on DF, in a manner that would hold the attention of amateur, spouse, children and visitors. The professional voice of Harry Webster, W6LAO, a KABL disc jockey; the music and sound effects by Phil Lerza, WB6RFU, chief engineer of KSFO; the assistance given me on the script by Howard Bassham, K6RYA; and the DF research accomplished by teamwork from Happy Flyers from all over the world — all contributed to the success of the finished product.

This is just an example of things that exist as a result of volunteer efforts of public spirited Amateur Radio operators. We need to remember them and thank people like this occasionally. Think of someone in your group, and thank them!

**James Hillbun, WA6QCX, in front of 1936 AEG recording machine at the Ampex Museum of Magnetic Recording. Jim provided a guided tour for Cub Scout pack.** *(Photo by Janet Parrish)*

### Cub Scouts, Ampex Museum and WA6QCX

Here is an example of another "good deed." My son, Hartley, is a member of the local Cub Scout pack. We heard Jim Hillbun, WA6QCX, traveling each day to open the Ampex Museum of Magnetic Recording, in Redwood City, California, from 11:00 a.m. to 2:00 p.m. so that people could visit on their lunch hours. Listening to him tell about the museum, it became obvious that great value could be derived by bringing the pack to visit.

We contacted Jim and asked about the possibilities. We learned that Ampex is not open on weekends, but Jim volunteered to see if he could make special arrangements. Although I only knew Jim from QSOs on the air, he did all the work necessary to arrange clearance to open the museum on a Saturday. Everyone was so excited about the opportunity that we had one of the biggest turnouts of parents ever. Some cars in the pool only had one cub aboard. Jim gave a fantastic tour, with many explanations about old-time recording equipment, people of the day, and even a specially prepared demonstration of the Ampex club's Amateur Radio station.

The Ampex Museum has machines on display that range from the old audio wire recorders produced at the turn of the century to the most modern video records of today. Not to be missed was one of the oldest automatic telephone answering machines dating back to 1910! It is a historic exhibit featuring magnetic media — wire, steel band and tape — produced from 1898 to 1965. Who knows what effect this visit may have on the lives of these young people? □






# TEACHER

Alan Kline, KB1DJ

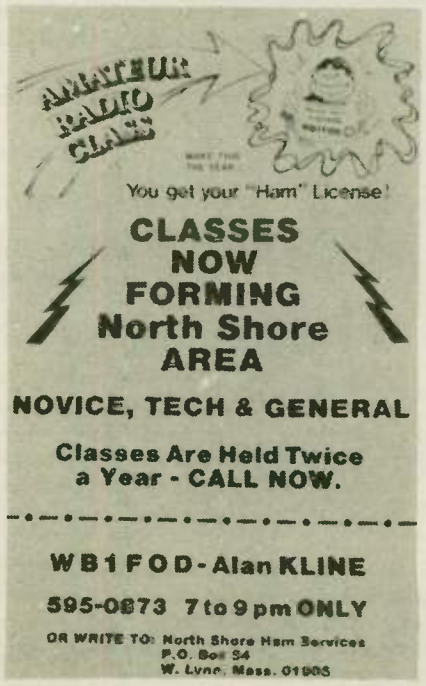
to get more people interested in Amateur Radio.

If you ask around your club or on the repeater, someone may work for a printer who can help you out, too. Don't be shy; ask for help on all your class projects.

Our poster says, "AMATEUR RADIO CLASSES, NOW FORMING." It goes on to say that they cover the Novice, Tech and General levels and are held twice a year. (see picture) You'll notice I give them the choice to call or write: most call. I limit the hours to 7:00 to 9:00 p.m. because if I didn't, people would call at all hours of the night. The biggest problem with our poster is getting the stores to keep them posted on the wall all the time. I find that if you frequent the store and get friendly with the salespeople, they don't throw away the poster. At $1 each, I hate to come back to an electronics store six months later and find a poster gone, and no one remembers where it went. After a few years of putting up posters and mailing class announcements to all the stores, I know which ones are a waste of time.

After they see the poster and contact you, what then? I ask them some basic questions: Where did they see the poster or who told them to contact me? What is their electronics/communications experience? Have they studied on their own for the Novice level? Depending on their answers, I send them a package of literature about Amateur Radio and when the next class starts. If the current class is less than halfway through, I ask that they attend that one. I invite them to the next repeater club meeting. If they own a scanner, I give them the repeater frequency. Finally, I assure them that their name will forever be on our mailing list.

Our mailing list is now over 700 names long, must constantly be corrected with address changes and new call signs, and soon will be put into a computer. Where did these 700 names come from? All previous students, instructors, anyone who calls about the posters, the ARRL, the local Boston FCC office, all stores that still have posters up and other clubs in our area. On our list, 650 are students




It's Saturday night in Anytown, USA. A husband and wife are out for the evening. They are doing a little shopping at the local mall or shopping center. The husband walks over to the home entertainment/electronics department of a large department store. He watches and listens as others fiddle with the CB's and scanners on display. "Hm, this sounds interesting."

Sometime later — a month, a year maybe, it doesn't matter — he is driving by a Heathkit Electronic Center or maybe the Amateur Radio store in your town. Remembering his experience listening to the scanners, he stops in to further investigate this world of radio and electronics. He cautiously looks around, listens to others try out the gear on display, maybe even diddles with one of the receivers. He likes what he sees and hears — he's hooked.

Next, he asks the very busy salesclerk, "What's this I'm listening to?" The clerk quickly says, "Amateur Radio." The man could leave that store puzzled and never think about Amateur Radio again, but here's where you instructors/teachers come in.

At every electronics, ham, CB, scanner, surplus or home video store in our area, we have a poster up on the wall. It invites them to contact us for more information on Amateur Radio. Not one to be cheap, I originally ordered 100 cardboard posters at $1 each, with all our class information on them. We got a bargain on them, for when I went to pick them up at the printer, he had "mistakenly" printed them on plastic. It seemed the owner's dad was an amateur, and the son had never gotten his license, so he was sympathetic to our non-profit cause — trying


*(Second of a series)*

**Question:** Does 8-20+10=30?

**Answer:** Yes.

That's the formula cooked up by John McNeil, WA2KSM, for converting the HW-8 to the new 30-meter amateur band at a cost of $10 or less but at the sacrifice of the 20-meter band.

However, John says losing 20 meters is worth it to gain access to the new 10 MHz band, which he says is one of the best QRP bands there is.

His approach requires the purchase of one replacement crystal and a handful of capacitors, all of which likely can be obtained for $10 or less. The new crystal is for 18.895 MHz, with a +/− tolerance of .005 percent, an HC6/U holder and a 30pF loading. The capacitors should be physically small, since they have to be soldered to the foil side of the printed-circuit board. And since they are in RF circuits, they should be silver micas, polystyrenes or NPO disc ceramics.

John said his decision to dump 20 meters in favor of 30 meters in his HW-8 was prompted by two factors: 1) the heterodyne oscillator and other circuits which have to be repeaked can be changed easiest by simply adding capacitance in parallel with that already in use, and 2) the final amplifier low-pass filter as designed by Heath for 20 meters falls within the range for harmonic reduction for 10 MHz.

"My tests on a spectrum analyzer showed the first harmonic to be at least 35dB below the fundamental," John said.

Here is his step-by-step modification of the HW-8 for 10 MHz:

- Wire a 47pF capacitor in parallel with C121. (All capacitors may be added on the foil side of the board for convenience.)
- Peak L19 as instructed in the HW-8 manual.
- Add a 100pF capacitor in parallel with C68 in the mixer amplifier.
- Peak L15 as per the manual.
- In the RF amplifier, parallel C22 with a 37pF capacitor and C7 with a 68pF capacitor.
- Adjust C7 and listen for a definite peak in the signal. If this occurs when C7 is fully meshed, add a little more parallel capacitance until you have a nice tuning range.
- With C22 adjusted for maximum signal, the preselector variable capacitor C301 should peak about midpoint. If not, add a little more capacitance to C22 until it also has a good peak and adjustment range.
- C104 in the final amplifier must be paralleled with a 10pF capacitor.
- While feeding the signal into a dummy load and wattmeter, adjust C103 for maximum output.
- This concludes the changes to the HW-8.


**Leo Delaney, KC5EV (second from right), president of the Houston Area QRP Club, met on a recent trip to England with members of the G-QRP Club to talk low-power operating. From left are Ian Deverell, G6BAI, and Fred Garratt, G4HOM, while the G-QRP Club's secretary, Rev. George Dobbs, G3RJV, is at right. George is scheduled to speak to the QRP Forum at the ARRL National Convention in Houston in October.** ***(Photo by Norman, G4LQF)***

If you are like me and are unwilling to sacrifice 20 meters for the new 30-meter band, but still would like to have 30-meter capabilities on your HW-8, there is another — but costlier and more time-consuming — approach. I've elected to give up 80 meters on the grounds it is the least used of the bands.

In its place will go the full set of 20-meter coils (L3, L7, L19, etc.) which can be obtained from Heath as spare parts. See the HW-8 instruction manual for parts numbers. It will be necessary to remove and discard some components (C1, R50, etc.) associated exclusively with 80-meter functions, but these can be pinpointed by careful examination of the schematic.

Other changes in capacitors can be made to reach the 30-meter values John uses in his modification. The result will be an HW-8 that works 30, 40, 20 and 15 meters, in that order.

A word of caution: Remember the no-no land from 10.109-10.115 MHz where amateur operations presently are outlawed. Check the calibration of your HW-8 in this area carefully. □





## Thanks to radio, skier survives

**Submitted by Dave Atkins, W6VX**

Here's an excerpt from an article in the *Los Angeles Times:*

"A skier was hurled more than 1,000 feet over a cliff and down a mountainside by an avalanche and buried for 20 minutes, but was rescued unhurt by his companions. Michael Franklin, of Salt Lake City, was pulled from the slide unhurt because he was wearing a tiny radio transmitter . . . ."

Looks as though "they" are catching on out there. □

## Teacher

*(continued from page 37)*

or potential students; the rest makes up the other categories.

Former students who have passed the Novice course or those who upgrade are your best salespeople. They are energetic about their new-found hobby and like to spread the word about Amateur Radio. The second best group is made up of the ones who take the Novice class, but drop out.

Just by attending three or four classes, students show curiosity about what Amateur Radio is really like. Remember, they each drop out for various personal reasons — not necessarily because they are too lazy to learn the code. Never take anyone off the mailing list. Someday they may show up in a class.

Who is not on the list? Our repeater has 260 members. As we have a weekly Tuesday night bulletin net and a special net the Thursday and Sunday night before our monthly meetings, I expect them to hear about the classes on the nets. For the past five years, I have given an educational committee report at almost every monthly meeting, so if you place announcements in your club newsletter and on your nets, club members don't have to be reminded when and where classes are held.

Yes, 700 is a lot of people to notify when you are going to have a class, but you never know which of them is going to show up or send their kids or a friend. As I mail two class announcements a year, postage costs, printing, envelopes and miscellaneous stationery costs approach the $400 budget area. I have never relied on the club to fund this amount of monies, so I charge all my students for each class.

In future articles, I will cover why I charge for classes, who pays and why, where to get a starting mailing list for a potential Novice class, and my views on the pending no-code proposal. In the meantime . . . 73's, Alan Kline, KB1DJ. □

# WITH THE HANDI-HAMS

Maureen Pranghofer, KF0I

It's a typical weekday evening. I've come home from work, had dinner and headed downstairs to the basement shack for some hamming. After a couple of CQs on 40-meter CW, I get in QSO with someone in Ohio. We have a nice chat about the usual questions — "How long have you been a ham?"

People are always interested in finding out when you got your Novice, if you remember anything special about your first QSO or what your first rig was like. But very seldom, if ever, have I heard anyone pop the question, "Why did you get involved in Amateur Radio?" I think if a survey were taken across the bands most people would respond with things like, "My neighbor was a ham and it looked like fun," or "I loved to build things, especially anything having to do with electronics," or "I wanted to be able to communicate with my son out on the West Coast."

If you asked some HANDI-HAM folks why they started to get involved in Amateur Radio, you might hear responses such as, "I want to help people, but being disabled it is hard to find things I can do and radio is one way I can help," or "I wanted to show other people I could do things as good as someone not handicapped," or "I like to talk to people and thought it would be fun to be able to converse with people around the world." Then there are always those who started working toward a license because they were lonely and in need of friends.

Feelings of loneliness and lack of friends were my chief reasons for becoming an amateur. I was 15 years old, living in rural Minnesota, where I was the oldest of six children. Born both blind and physically handicapped, I was one of the only disabled persons in our school or community. That is not to say that my activities were limited to any great degree. I was a busy, active teenager. Days were taken up with school, homework, and my hobbies of playing guitar and piano, and reading everything I could get my hands on. But all of these activities were, for the most part, done alone. I would on occasion go to athletic events at school or to dances, but if I was not with my immediate family, I was by myself. Being labeled as different in the adolescent world, I had no friends with which to socialize.

Then, in sophomore biology, the thing which changed all of this occurred. My instructor happened to mention to the class that he had once been an Amateur Radio operator but that his license had expired. He said he'd had great fun talking with other hams all over the place. I found out from him that it would be necessary to learn code and theory to get a license. Shortly after this, through a stroke of luck, I became acquainted with the Courage HANDI-HAM System.

From the very start, I could see that amateurs were a friendly lot. After writing to the System and asking them what to do, they introduced me to a ham, WA0WPP, who lived about 40 miles from my home. Every Sunday night he came without fail to help me through the Novice ticket. After being on the air as Novice for only about two weeks I upgraded to the General and from there gradually advanced to Extra.

In the old days, before getting my ticket, I dreaded weekends because they were long and boring, and vacations were even worse. But now there was something to do ... always someone to talk with, and I had all of the friends one could ever want.

When I had started working toward my ticket, I had an idea in the back of my mind that I would get back at all those people who didn't include me in their activities by showing them I could do something they couldn't do. It was kind of a revengeful idea. But once I got the ticket, I was having so much fun I forgot about showing anyone up.

It is true that in my case much of my difficulty in making friends and socializing was due to adolescence, but there are so many others of different ages and in different situations who are just as lonely as I was before Amateur Radio came along.

There are those who have recently become disabled and need to think they still have abilities; those people who are simply getting older and finding that with age comes limited mobility because of physical problems; and those people who are isolated because of transportation difficulties and architectural barriers. For all of these folks, Amateur Radio and assistance from the Courage HANDI-HAM System could be the answer.

How can you help? Perhaps talk to that handicapped person in your community who you have always noticed with his/her immediate family. Mention Amateur Radio to someone you may know who never seems to get out of the house, or check with your local school to see if there are any adolescents who are always alone.

Sometimes just introducing people to the hobby of Amateur Radio is enough to give them a new start and a new hope to the end of loneliness. □

## Team volunteering

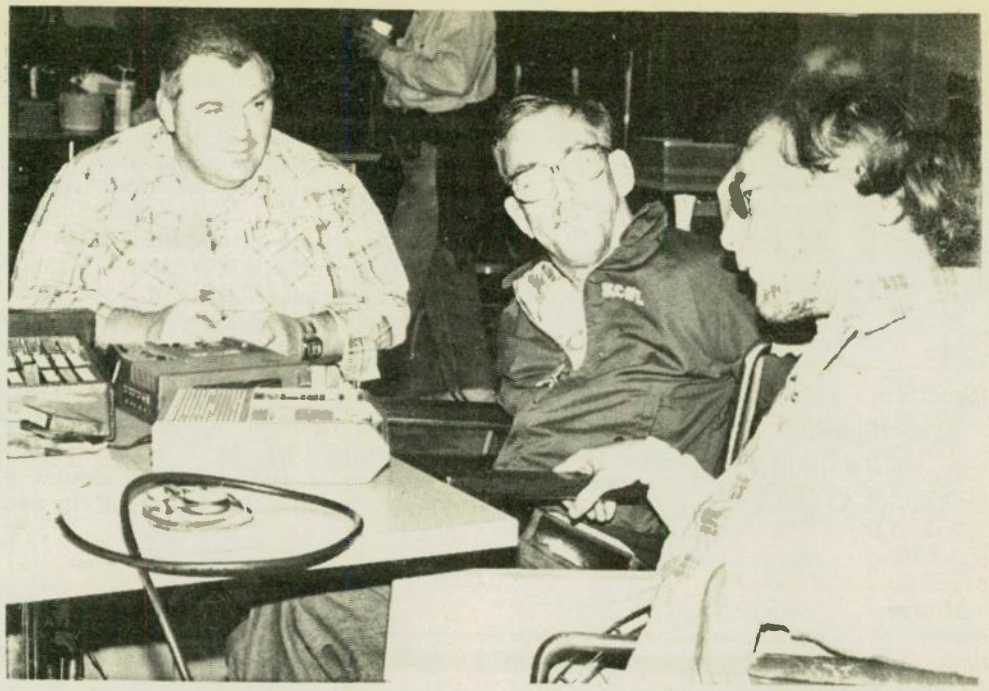
Rex Kiser, W0GLU of Minneapolis, Minnesota and his wife, Miriam, both spend a lot of time at Courage Center. Rex, a handicapped member of the HANDI-HAM System, spends two or three days each week in HANDI-HAM headquarters preparing equipment for loan to HANDI-HAM students. Rex has been a radio amateur for 30 years and is very active on the air and in helping fix equipment for local amateurs.

Miriam volunteers in the Courage Center Homecrafters gift shop while Rex is down in the HANDI-HAM center. Courage Center Homecrafters is a vocational rehabilitation service enabling homebound Minnesotans with physical disabilities to develop skills to produce marketable craft items at home.

Courage Center staff work with the client at home to evaluate interests and abilities and help select an appropriate craft.

The Homecrafters marketing program buys the products, as they are completed by clients, and markets them through Courage Center's three gift shops and special sales throughout the state.

—*HANDI-HAM World* □



**Jim Barthel, KA0JOZ of Mott, North Dakota (left), and Dan Kawka of Knox, Indiana (right), listen intently to Dr. Tom Linde, KC0L, Radio Camp Morse Code Instructor (center).**

## Radio Camps good for several reasons

If you are familiar with *HANDI-HAM World* or have seen the 'With the HANDI-HAMS' column in **Worldradio**, you have read (several times over) accounts of our fantastic Radio Camps. The tough study, the recreation, the camaraderie, the storytelling, the bonfires, the radiograms, the Traveling Trots Trophy and all that.

But what *else* has come out of our Radio Camps? Quite a few things, it turns out. Things which might help people you know — or even yourself — study Amateur Radio more easily. You have to realize that a Radio Camp session only lasts four to five days. We have to cram into that short period of time a whole bunch of studying, recreation and general sessions dealing with Amateur Radio.

Here are a few of the ideas which have grown out of our Radio Camp experiences:

• **Small classes a must** — If we have more than 10 people to a class, we just don't keep the attention of everyone. Also, there are so many different levels of educational background that it's difficult to arrange appropriate teaching methods for everyone in a larger class.

• **Two teachers per class** — There are several reasons we use two (or more) teachers for each class.

First, we can separate the students into two levels and have the instructors structure their presentations to each level.

Also, some teachers hold certain students' attention better than others — mixing the presentations helps.

Another reason: using two teachers gives the instructors adequate time for preparations.

• **Frequent breaks and recreation periods** — Nothing brings on *ennui* (that's French for "boredom") like having to sit through long sessions on electronic theory without breaks.

• **Visual effects and demonstrations are important** — You can talk till you're blue in the face about dipole antennas — but have your class make one, and you've got real understanding!

• **Put students "On the RAC!"** — At Radio Camp, RAC stands for "Rapid Advancement Class."

The RAC gives those students who want to accelerate their learning a chance to go for broke and take as much as they can. Several instructors spend full time with each RAC-mate to drum in as much pure electronic knowledge as possible in the shortest period of time. For example; it's not unlikely to have a promising Novice who has spent three days in the General class at Radio Camp go on the RAC and come out with an Advanced or even Extra Class license!

It takes a tremendous amount of drive on the student's part and a whale of a lot of hard work on the part of the instructors who help out on the RAC, but it's worth it!

• **Squirt** — This is a fairly new technique to Radio Camp. It stands for Super Quiet Un-Interrupted Radio (or Reading) Time. During Radio Camp, we schedule several hours of SQUIRT for each camper. SQUIRT is a time for personal study where students won't be bothered by instructors, other campers or even the ever-present helpful counselor.

You can see from these examples that the Radio Camp experience is not just fun, fellowship and upgrades, but is also providing an educational model through which the HANDI-HAM System is able to refine Amateur Radio instruction techniques. An important part of Radio Camp is the evaluation of instruction methods, study materials and curriculum by both students and instructors.

Apparently, our work to improve the Radio Camp instruction is paying off — the passing rate for students taking FCC exams at the Courage North Radio Camp last summer was exceptional. We are particularly pleased that those who crammed for the two-step upgrades passed the higher grades.

— *HANDI-HAM World* □

# TRAFFIC


**Chuck Clark, K4ZN**
Assistant Director
Roanoke Division, ARRL


**The biggest?**

During the first two weeks of February, the Tampa Amateur Radio Club's station W4DUG at the Florida State Fair originated over 6,000 messages. Can anybody top that?

Despite the Valentine's Day traffic and other stations conducting mass originations, the National Traffic System was not really overloaded, thanks to the planning that went into this effort — planning which drew on the experience of dozens of similar efforts in the past.

Some traffic was put into Florida section nets, but the bulk of it was handled by special schedules with traffic stations in various parts of the country that usually put it into the system in their area. A large chunk of the traffic went from the fair station to Al and Mae Burke, W3VR/W3CUL, by Teletype, taking advantage of their many schedules with traffic handlers in all parts of the nation.

**The Transcontinental Corps**

Any mass origination event's sponsors should make similar provisions. Trying to put more than 10 messages into a section net, 15 into a region net, or 20 into an area net by one station risks overloading the net. The exact limit depends on several factors, but usually it will not be far from this. Another rule of thumb: if a mass origination event is expected to generate 50 or more messages per day, special schedules should be set up to handle it. If the sponsors are not sure, it is better to make the arrangments to be on the safe side. People are not impressed by traffic that reaches its destination a week later if at all.

Where do you find amateurs to handle the traffic on special schedules? Probably the best source of help is the National Traffic System's (NTS) Transcontinental Corps (TCC), a group of operators that transfers traffic between the three areas of the system. The operators do this by keeping schedules with one another to swap messages, in accordance with a program that you can find outlined in the ARRL's booklet *Public Service Communications*. The TCC Directors are probably the best people to see, in most instances, when you have a large mass of traffic to move. Arranging schedules is a daily routine for them, and the TCC operators are usually top traffic people.

Here are the six TCC Directors. Call on them for your mass origination events and in particular, call on them for help in time of emergency.

**Eastern Area, daytme**
Edward E. Wood, N2CER
Route 2, Box 186
Mays Landing, NJ 08330
609-635-0312

**Central Area, daytime**
Peggy Coulter, W9JUJ
RFD 10, Box 262
Muncie, IN 47302
317-288-0481

**Pacific Area, daytime**
Peter T. Hills, W0HXB
2048 Hudson St.
Denver, CO 80207
303-333-6273

**Eastern Area, night**
Gary Ferdinand, W2CS
Sunset Trail
Clinton Corners, NY 12514
914-266-5398

**Central Area, night**
Robert P. Schmidt, W5GHP
5100 Press Dr.
New Orleans, LA 70126
504-288-0410

**Pacific Area, night**
Robert E. Poirier, K0DJ
1884 Pepperwood Dr.
Colorado Springs, CO 80910
303-574-0488

TCC operators do not grow on trees. you have experience in handling traffic all NTS levels, in both modes, voice a CW, have a reasonably good station, a can be depended upon to keep schedule contact the TCC Director listed above your area — either the daytime or nigh time one, depending on when you a available. Your help will be appreciated

**From TCC**

Regularly on area nets, occasionally region and section nets, you will he operators who are obviously traff handling experts check in, announce th are "from TCC," and list traffic. In mo cases, TCC stations put traffic from oth areas into their area net, but in some stances they bypass the normal routi (are directed to do so by the TCC pl itself) and put their traffic into areas a section nets to expedite delivery.

These stations may have traffic several nets, so must not be kept waitin Net control should clear them i mediately. If the net has no outlet fo particular message at the time, it shou be given to some station on the net hold. Clear it at once, so the TCC stati can move on.

**Traffic storage**

This concept of holding traffic sho find application in other cases as well. fact, some nets might even profit fr having regular liaison not only with otl nets, but with later sessions of the sa net. Thus, if the amateur from Sku Hollow works in the evening and is able check into the late session only, traf listed for him on the early net could

taken by someone who will also check into the late net. If the station that lists the traffic can come back to the late session, fine. When that isn't possible, someone should take the traffic to hold it.

### Recruiting

Less than 1 percent of the amateurs in the United States are involved to any degree in handling traffic. Our numbers are increasing, however, as can be seen from the statistics of net check-ins and volume of traffic handled. But the increase is slow. Percentage-wise, I suspect we are losing ground; I suspect that the percentage of amateurs involved is slowly becoming smaller, but I don't have any figures to back that up.

An examination of the traffic reports, however, does lead to some interesting results. There were 45 who made Brass Pounders League (BPL) in November by handling over 500 message units. They handled a total of 46,500, or an average of 1,033 per station, and that represents about one-third of all the traffic handled on the amateur bands and reported to the Section Managers. Most of the remainder was handled by about 300 other amateurs with totals of 100 or more, with perhaps 10 percent left for the thousand or so who reported totals less than 100. What about the other 300,000 amateurs?

Of course, there's no law that says we are supposed to handle traffic. Many amateurs feel traffic nets are a nuisance, take up valuable frequencies that could be used for ragchewing, contesting, working DX, playing chess or other amateur activities. Of course, if the 20 amateurs in a net were not there, they might be occupying 20 other frequencies engaged in one of those other activities and crowding the band still more. However, except for emergencies in the strict sense — communications related to the immediate safety of life and property, no one activity of ours takes priority over any other.

Yet our traffic-handling activities are a public service, and for its best performance we need good operators in every part of the country, and in every part of our state or province, too. Traffic handling is no good unless messages can be delivered, so we need help — stations to provide coverage where none exists at present. additional stations to back up those already operating, stations to provide service at all levels of the NTS.

Perhaps of even greater importance, regardless of the level an amateur operates at while handling traffic — whether in the NTS or independently, that operating is the best possible training for emergency service, should an emergency arise. So let's make sure newcomers are invited to participate.

One excellent suggestion has been made several times already in this column, but it's still good: operate in the Novice bands, and send messages afterward to the Novices we work, inviting them to check into an appropriate net. Stations that deliver such messages will, in most cases, be able to answer any questions the Novice may have.

You can find a list of nets in the Novice bands in the ARRL Net Directory, which is free (ARRL requests a 9″ × 12″ envelope with 54 cents postage). Any readers who are not active as traffic handlers but who would like to try their hands at it will find most of what they need to know in the Net Directory. It is not only a list of nets; it contains advice on checking into nets and on getting started as a traffic handler.

### Additional NTS cycles

The plan for the NTS now envisions four cycles per day; only two ordinarily operate at present. The beginning times for each cycle are as follows:

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Section | 10:00 a.m. | 1:00 p.m. | 4:00 p.m. | 7:00 p.m. |
| Region | 10:45 a.m. | 1:45 p.m. | 4:45 p.m. | 7:45 p.m. |
| Area | 11:30 a.m. | 2:30 p.m. | 5:30 p.m. | 8:30 p.m. |
| Region | 12:30 p.m. | 3:30 p.m. | 6:30 p.m. | 9:30 p.m. |
| Section | 1:00 p.m. | 4:00 p.m. | 7:00 p.m. | 10:00 p.m. |

At present, cycles 2 and 4 are in full operation; cycle 1, in addition, is active in the Pacific Area, to enable traffic to move from west to east despite the time difference. All these times are local standard (or daylight).

In case of emergency, cycles 1 and 3 can be activated, at the discretion of the net managers, and are usually activated during the Simulated Emergency Test. If more stations become active in traffic handling, it may be possible to activate cycles 1 and 3 on a more regular basis, which would certainly enable us to improve our service.

In particular, several traffic handlers are urging that the extra cycles be activated during holiday season and at other times when there is an extra load of traffic. Even though it may not be possible to fill all the slots all the time, it will still be possible to relieve some of the load from the regular net sessions. Furthermore, an occasional activation of the extra cycles will be a good rehearsal for possible occasions when an emergency makes their activation necessary.

Beyond activating all four cycles of the NTS, the plan calls for possibly conducting area and section nets at the same time, thus squeezing in additional sessions in between the regular ones. Thus, cycle 1 would have area nets at 10:00 a.m. in addition to 11:30, and section nets meet at 11:30 a.m. in addition to the regular meeting at 10:00 a.m.

As far as I know, this has never actually been tried; the traffic load has never required it. The possibility exists of activating all the nets on a continuous basis, but it is hard to imagine an occasion that would require it. If a disaster of that proportion were to occur, probably most amateurs would be too busy trying to stay alive to be able to do much operating. □

## Help A Novice

I have been doing something different lately and have found it to be quite enjoyable. As I tune up the rig for an evening of ragchewing, I move to one of the Novice subbands and try to work at least one Novice station. I usually look for one who has called CQ and gotten no response. It can be a great let-down to a new Novice to spend an evening calling CQ and get no response. I say this from personal experience. As most of us have upgraded, we have gotten better and more powerful equipment. The poor Novice, however, is confined to his sliver of the ham bands and his low power. This, combined with his lack of experience, can make for a lot of CQs and few QSOs.

Here are a few things to remember when working our Novices:

1) Most Novices are still battling CW. Don't impress them with your speed. Impress them with the clarity of your sending. Try to match the Novice's speed as closely as possible.

2) Try to engage them in a conversational type of contact. Go beyond the name, QTH, RST and WX. Find out their age and occupation. Show them you are really interested in them.

3) Always QSL if they request it. To many a Novice, this is almost as important as the contact. If they ask for a QSL, tell them to give you their address over the air. This gives them practice sending numbers and punctuation they may not normally use.

4) Watch your power while in the Novice band. Even though you may hold a higher class ticket, you still can run only 250 watts in on these bands.

When the Novice turns it back to you, give him a few seconds to regroup before you transmit. He probably isn't using state-of-the-art equipment and may even have to trip an antenna relay.

Some of the people who are most excited about Amateur Radio can be found among our Novices. You can help to make their early amateur experiences more enjoyable by just taking a little time to work these newest members of our fraternity. Give them a try — you'll be glad you did. 73 de The Old-Timer

*— Tamiami ARC, Venice, FL* □

## More Extras

Glenn Schultz, W0IJR, and XYL Karen, KA0CDN, can be added to that list of Extra Class couples. They live in Aurora, Colorado. □

## Two EC couples

Richard Farquhar, W8FQ, informs us that he and his wife can be added to the list of Extra Class couples. They live in Columbus, Ohio. His wife, Nancy, recently got hew new call, NA8N.

Nancy first became an amateur on 26 May 1982, when she received her Novice call, KA8PUO. In September 1982, she passed the General and Advanced tests and became KC8ZX. On 26 January 1983, she took the Extra Class test and passed on her first attempt.

Richard also tells us there is another Extra Class family in Columbus, Ohio — Dick and Bonnie Cassady, KI8N and KY8H. □


Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

### Silent tune-up

"Can't something be done about all the tuner-uppers that plague our bands?" Did that thought ever cross your mind? If it hasn't, you don't work HF very much. You wonder sometimes when some amateurs ever find time to operate when you hear them for a half hour or more, putting out squeals and squawks.

Yes, something can be done about it, and there are two groups who can do something — the manufacturers and the operators.

The manufacturers are doing something. The new solid-state rigs don't need to be tuned; just turn on the power and operate — no tune-up, no warm-up. But we who can't afford the price of these new rigs, who still use tube rigs, what can we do about it? Two things: if it is necessary to tune on the air, do it where you don't bother anybody. On the CW bands, you can usually find a clear spot a few kilohertz up or down. Then do your tuning quickly. Set the knobs to the approximate position before you put the carrier on the air. You can make note of the position, and have the record available to refer to when you use that frequency again.

On many transceivers, you can adjust the controls while receiving, and then just touch them up a bit with the signal on the air. Quick tune-ups not only minimize interference; they also reduce the wear and tear on your finals.

You won't find a clear spot so easily on the voice bands, in the General portion in particular. However, you can put your carrier right on top of the carrier of another station, and you won't bother anybody. Just tune in a station until the audio quality is correct, then put your carrier on the air and do your tuning. You won't be heard.

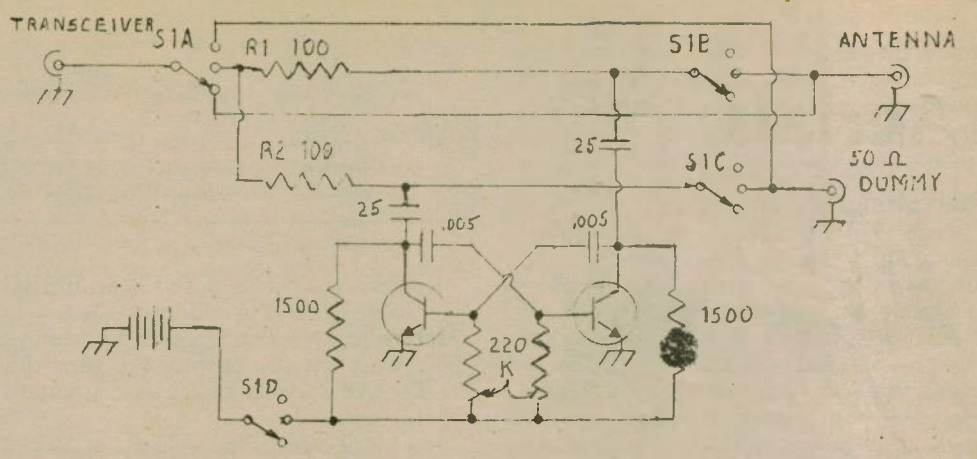
One thing to note, however: some rigs have a "tune" position on the mode switch that offsets the carrier from its "operate" frequency, thus putting the carrier right in the middle of the passband and producing an exasperating howl in the receivers of people using the frequency. I have one such rig — a Swan 350. I never use the "tune" function; instead I unbalance the carrier and use the push-to-talk switch to put the carrier on the air on the same frequency it will have when transmitting. I have yet to hear a complaint from anyone.

### Tune-up bridge

If your station has the gadget described here, you won't need to go on the air at all; you can do all your tuning without making a peep. The two transistors generate an audio-frequency square wave that contains harmonics all the way up to VHF. R1 and R2 form a bridge with the antenna and a 50-ohm dummy load, so that when the impedance of the antenna is 50 ohms resistive, the bridge is balanced and no sound will be heard in the transceiver. R1 and R2 should be as closely matched as possible, but their value otherwise is not critical. Matching them with an ohmmeter will be satisfactory. The value of other parts is not critical. The transistors can be any NPN type (or PNP if the positive terminal of the battery is grounded). A 9-volt transistor battery should be good for a year or two, at least.

When S1 is in the top position, the output of the transmitter is fed into the dummy load, for tuning the transmitter to match a 50-ohm load. Then S1 is turned to the middle position, which activates the bridge. The transmitter adjustments are not touched. Instead, the antenna circuit is adjusted until the best null is obtained in the receiver. How the antenna is adjusted will depend on what kind of antenna is in use. It can mean adjusting capacitors and inductors in an antenna coupler. It may mean trimming the length of the antenna or making adjustments to a gamma match of a Yagi beam. Once the antenna circuit is tuned, S3 may be turned to the bottom position, and you're ready to go.

The 50-ohm dummy can be a commercial or homebrew load, such as the




Cantenna, or it can be built by hanging two electrodes in a container of water, adding salt until the resistance at the desired frequency is 50 ohms. You can use the tune-up bridge to make this adjustment, too. Connect a 50-ohm noninductive resistor across the antenna terminals, and adjust the concentration of salt in the water until you get your null.

If you have a no-tune-up rig, you won't need the top position of S1, and you can use a small resistor inside the box that contains the bridge instead of a dummy load outside on the end of a cable.

Some older rigs are designed to match a wide range of output impedances, but current designs have made 50 ohms nonreactive the industry standard. While the older designs have the advantage of simplicity and fewer parts, the modern way of delivering the output through 50-ohm coaxial cable has one important advantage — reducing the amount of harmonic energy that gets out of a transmitter.

How little it takes to cause trouble was brought home to me recently when the 21st harmonic of the local oscillator in a Heath HW-7, operating on 7013 kHz and doubling into the 20-meter band, opened the squelch on a 2-meter rig nearby, tuned to 147.27 MHz. The HW-7 was not transmitting; it was only the receiver that was putting out the signal. It doesn't take much to cause trouble.

No-tune-up rigs use low-pass filters instead of tuned circuits. These filters are broad-band and cut off the harmonics, but pass the fundamental with little attenuation. This has a good point and a bad point. The good point is that there is nothing to adjust. The bad point is that a filter must be terminated in the correct impedance if it is to function properly. A mismatch here may be noticed immediately by your neighbors who are watching TV.

Now let's try to convince manufacturers to include tune-up bridges in their transceivers. It would add very little to the cost and could easily be arranged to disable the transmitting function when the bridge is in the circuit, preventing any damage that might result from feeding the transmitter output into the bridge. Maybe then our bands would be a lot quieter. □

Share your knowledge with your fellow amateur and Worldradio reader

# Aerials

**Kurt N. Sterba**

Well, Lil, you've cut me to the quick. The things you said about me! A few, I must admit, were with some justification. I shall turn over a new leaf . . . at least part way.

Here is something for the newcomers — a chart to plot SWR across the band. Take your SWR readings at each of the frequencies on the chart and make a dot with a pencil. After you have plotted each frequency, draw a line connecting the dots.

This will give you a visual representation of your antenna. Then you can shift the point of lowest SWR to your favorite operating portion of the band.

If at present, your antenna's lowest SWR is at a frequency point lower than you want it, shorten the antenna. If your antenna's SWR minimum is at a frequency point higher than where you want it, lengthen the antenna.

Of course, you take off or add on equal amounts on both ends of the dipole. And don't forget, if you have the SWR bridge in which you zero-in the reading in the forward position, do so at each and every frequency point.

The lowest SWR point indicates the resonant point of the antenna. Why, you may ask, does it not always go down all the way to zero SWR or, as the bridge would indicate, 1:1?

There are two forces at work here. First is the reactance. If the antenna should be too short for the preferred frequency, the antenna would show capacitive reactance. If the antenna should be too long for the chosen frequency, the antenna would exhibit inductive capacitance. (What antenna tuners do is add one or the other to compensate.)

When you have neither C reactance or L reactance, you are at the right length. That's the easy part. Now comes the hard part!

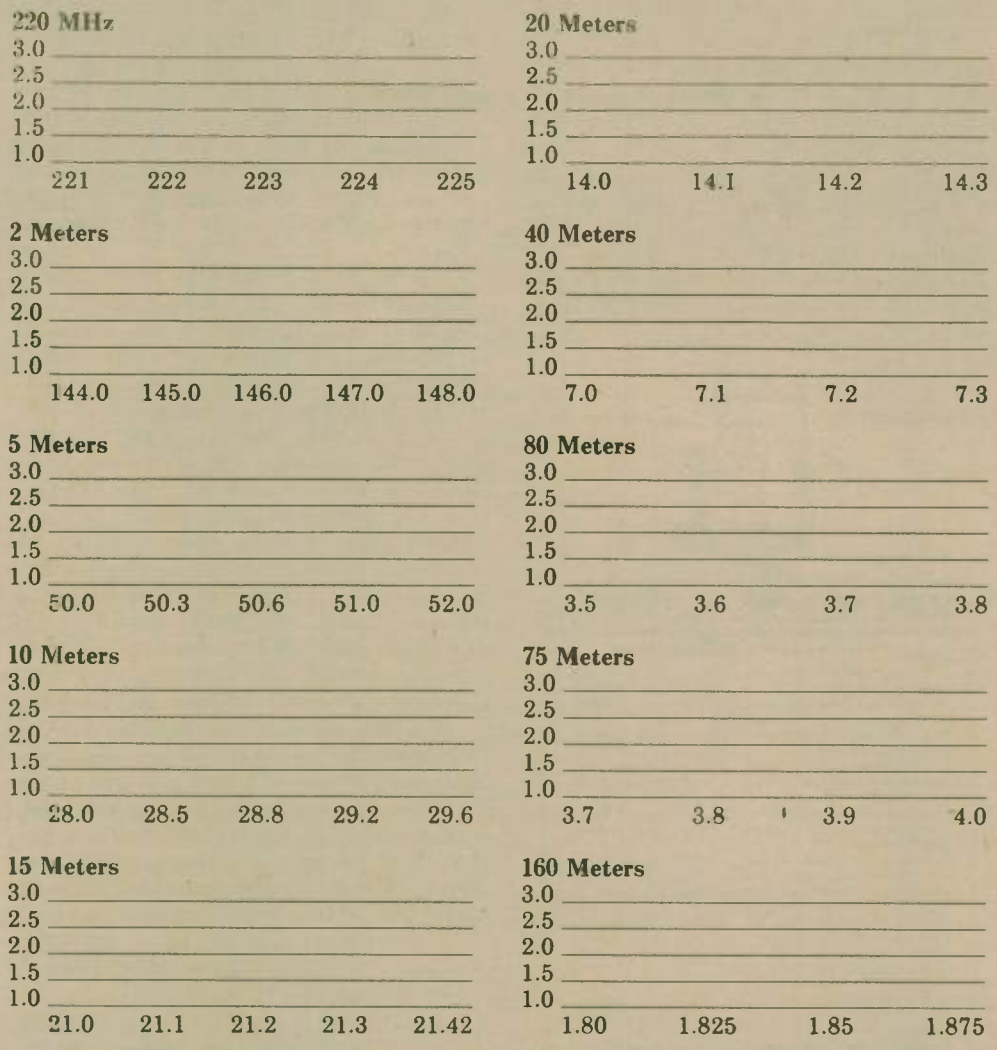
Let's assume you show an SWR of 2:1. If your transmitter has a 50-ohm output and you are using 50-ohm cable, you will find either your antenna is 25 ohms or it is 100 ohms.

See the relationship between the SWR and the antenna resistances? If you show a 3:1, it tells you the antenna is either 16:6 ohms or 150 ohms. Obviously, you must do something to the antenna — raise it, lower it, get it away from objects affecting it, etc., or you must "match it" to the line in one manner or another. There are baluns that can do the job, spreading the wires that connect to it, or use a tuner.

It is the combination of antenna reactances and resistance that determines the antenna's impedance.

**Ham Radio** magazine, in their March issue, continued the article on the "Bobtail Curtain." Certainly recommended reading for those seriously interested in antennas.

## Antenna SWR Curve Chart




Take a SWR reading at each frequency listed across bottom of graph and make a dot at each point. When finished with all frequencies on that band, draw a solid line connecting all points and you have your curve for that band.

**QST**, in their March issue, had an article on the outstanding "X" Beam. I'm sorry they did. While I'm quite dedicated to my readers, and answer every question to the best of my ability, that was one I was keeping for myself. Now that the cat is out of the bag, (and I have turned over a new leaf), I will tell you that the claims made by the **QST** author were completely true, if not a bit on the modest side (for a change). The "X" beam is outstanding! Space for space and dollar for dollar, it is the best.

Now that we've talked about antennas useful from 10 down to 80 meters, let's look at 160.

With the sunspot cycle wobbling downward, 160 gets better. DXing on 80 and 160 is best when the higher bands are at their worst.

Yes, I can already hear you saying, "Who's got room for a 160 dipole?" Few, it is true. However, if you have the room for an 80-meter dipole (or even less) you can go on 160. Here's how: Get about 130 feet of 300-ohm twin lead (TV wire). Short one end. That is now the far end. With the other end, put one wire to the center of a piece of coax. Put the other wire to the shield of the same piece of coax. That is also the ground end, and as much ground system, radials, counterpoise as you can put together should be used. The lack of an extensive ground system should not stop you. Even the old water faucet will help some.

The other end of the coax goes to a tuner, the tuner goes to an SWR bridge, and the SWR bridge goes to your rig.

Now, with the twin lead you go UP as far as possible, then extend the remainder horiziontally. You may remember that we've discussed this concept in recent columns.

You can run a lanyard from your tower or a tree to hold up the vertical part. If need be, you can even bend down the horizontal part at the other end.

True, this is not an antenna that will get you 160-meter WAZ over a contest weekend. It is, however, an inexpensive and quick way to let you sample the "Gentleman's Band."

A caution. Any time you see an article recommending any sort of Mickey Mouse center insulator for a dipole, such as the one I just saw — plastic cut from the lid of a plastic pail, *FORGET IT!* Spend a couple of bucks and get a Budwig or Van Gordon. Do it clean, neat and right.

In the April issue of one of the ham mags was probably the most stupid thing I have ever read about antennas anywhere. First, for someone to write it, and then for the editors not to catch it, would be laughable if it wasn't so *DUMB*.

Since I am trying to be a nice person, (just to show Lil that I can be), I shall not name names. (If you spotted it, too, drop me a QSL card in care of **Worldradio**.) What I will do, a few months down the pike is back into the subject, so as to let you have the correct poop. I wonder how many hundreds of cards from the knowledgeable I'll get.

As always, your questions are welcomed.

*(Contrite Kurt goes by this monicker so he can go to Dayton, speak to the people at a ham mag that prints unintentional jokes, and everybody keeps their cool.)* □

●●●

**When submitting photos, please *DO NOT* write on the backs of them — they often stain the fronts of other photos, making them unusable.**


It certainly is good to see that Eddie Collins, W4MS, finally is enjoying color SSTV. He ordered the Colorscan 403 system in May of 1982. Through a series of complications and problems, it has taken about nine months to get the system up and running on color. Have fun Eddie, and enjoy the color video.

Listening around the SSTV frequencies, I find that a lot of SSTVers are taking a wait-and-see attitude. They are waiting to see what Robot unveils for their new color scan converter. By the time you read this, the answer should be known. Make no mistake, though — color SSTV has the interest of nearly everyone. Even the few owners of the B&W Microcraft scan converter, who have regularly been on the air, have been relentlessly questioning George Steber, WB9LVI, as to when he will have a color modification for that unit.

A color upgrade for the Microcraft 1000 will undoubtedly be shown at Dayton. There is space in the unit for a third memory and RGB will be the way to go. Indeed, some Microcraft owners are already buying the unique K-Mart color TV sets or similar ones to interface to their units. They will use an interface that feeds the output from the scan converter to the RGB guns of the color TV, just as Interface Systems has been doing with their 3000C color conversion for nearly two years.

## USATVS

The formal announcement of the formation of the United States Amateur Television Society (USATVS), a political organization, has been made. The concept for this society was publicly discussed, primarily by FSTVers, at a couple of small hamfests held in the Midwest during 1982. The final organization and plans for the society were made privately via letter and phone conversations. Because of this, the new organization is already mired in controversy.

Any U.S. citizen who is a licensed amateur is eligible to join the USATVS, though it is unclear how one would join. Donations are solicited. Subscribers to A-5 Magazine are automatically members. A long list of specialized communications modes are purported to be represented by the USATVS. I don't see how RTTY fits into an ATV Society. The *RTTY Journal* most adequately represents those interests. Medium Scan TV (MSTV) is also listed, but after several years of talk, it remains a fleeting dream and is non-existent. Though a few computers are beginning to be used regularly on SSTV, they are used in many other amateur applications. There are numerous computer magazines and organizations already representing those interests.

A panel of 50 advisors has been named to run the USATVS, and each has one or more specialized modes they represent. However, some of the advisors haven't been active on the air in their specialized modes in years. Other advisors represent modes which have nothing to do with ATV in any form. Other advisors will give information and advice in the area of their expertise, but have no interest in getting involved in political activities. Some advisors had no knowledge of even being named until their names were published.

The goals and projects to be undertaken by the USATVS are admirable and, by and large, necessary. Some can be accomplished by "gentlemen's agreement" while others require petitioning the FCC. FSTV is basically a local mode of communication and occasionally regional during band openings. On the other hand, SSTV is international in scope. The interests, problems and issues of both modes are vastly different. A few members of the USATVS advisory board operate both modes, but most do not. I doubt that SSTVers would want FSTVers making important SSTV decisions. Likewise, FSTVers would not want SSTVers speaking for their interests.

It would be nearly impossible for the whole advisory board of 50 to realistically and fairly assess a concern of one of the specialized communication modes and make a rational determination. The alternative of having the handful of advisors represent a particular mode and make all decisions for that mode hardly seems realistic, but seems to be what they are striving for. The whole organization does not bode well for SSTV.

The USATVS as a political organization boasts an "instant" initial membership of over 1,100. As anyone familiar with political organizations knows, however, you don't just invent an effective organization overnight and toss around inflated membership numbers to impress people. To gain respect and influence, a political organization must be built over years of time, and be made up of willing and active concerned members who will regularly put forth time and effort to achieve the goals of the organization. Without that, those you are trying to petition or influence, will either ignore you or laugh in your face. This is already happening with the USATVS.

### Conclusions

I have a copy of a letter in which the organizer/sponsor of the USATVS offered control of the whole SSTV portion of that organization to a well-known ATV/SSTVer if only he would join up. The offer was refused. This is typical, however. What other deals were made? I believe the pie was sliced up long ago and that a small select group will be running the USATVS. I believe that many, if not the majority, of the names on the advisory board were named solely to try and impress others.

I think the USATVS was formed for three reasons. Unfortunately, the best reason was of the least concern to the organizers. The primary reason for the USATVS is as a marketing tool for a commercial publication to bolster subscriptions. Despite being declared non-profit, the USATVS is sponsored and financed by a commercial magazine. The ties are still in place.

Secondly, I think the USATVS was formed as an attempt by a handful of amateurs who — in recent years — had lost face and influence among ATVers, to regain their influence and attempt to speak for all of ATV and more. I feel sorry for those USATVS advisors whose names are being used, yet who would have none of this. For this organization and its sponsor to claim to "officially" speak for any amateur mode of communication is ridiculous. For it to represent itself as such to the FCC, ARRL, or any other group it is trying to petition or influence is absurd.

Finally, there are legitimate problems and issues of concern to ATV and SSTV. FSTV needs some organization and a means to communicate with FSTVers around the country. The USATVS proposes to undertake and solve some of these. That's fine. However, any individual or organization can at any time petition the FCC for rule changes or new rules. Anyone can comment on proposals before the FCC.

The things that those of us in SSTV must watch out for are "official" proclamations, decisions and agreements coming from the USATVS. We certainly don't want a few people in the USATVS making decisions or agreements on operating frequencies, standards, etc., and trying to impose them on all of SSTV.

At this time it is not wise for the USATVS to compare itself to the likes of ARRL, BATS and other fine long-standing organizations. It is trying to represent much more than it can. Perhaps it should confine its activities to FSTV. It got off on the wrong foot and at this time can be considered little more than a magazine club. Maybe after 5-10 years of hard work, it can attain the influence it seeks.

Next month, the results of a six-month SSTV activity survey plus realistic ratings of all color SSTV systems. See you at Dayton! 73s □





# Booming field in Amateur Radio

**Mike Stone, WB0QCD**

1983 is here and the future of Amateur Radio looks very promising, especially in the field of specialized communications. In a time of HF low-band propagation decline in accordance with the sunspot cycle, VHF/UHF operations is on a drastic increase in activity and interest. Manufacturers and dealers report record sales in 2-meter FM and SSB equipment, 220 MHz gear and 450 band equipment. Repeater space is nearly full across most of the countryside on all bands, with repeater systems filling up on 1215 and even 2300 MHz! With this upper-band interest at its largest peak in many years, many VHF-UHFers are now looking into utilizing these frequencies for specialty modes such as RTTY, FAX, ATV, SSTV, satellite, computers and digital data techniques. While maintaining interest on low-band operations and taking advantage of the propagation condition openings, movement to the upper bands is certainly on a great increase.

Radioteletype (RTTY) is perhaps the biggest surge in activity, followed closely by satellite communications. RTTY's popularity is quite understanding on the VHF/UHF circuits, as — since the near beginning of specialized activity on the HF bands — it has been a popular mode. Recent advancement of the state-of-the-art has brought a "video" resurgence to the mode. The price of older hardcopy RTTY printers and demodulators has dropped significantly and is now a real bargain for the teletypist.

The cost of the more elaborate "video" equipment and its multi-purpose features makes jumping into RTTY even more exciting. VHF/UHF repeaters designed especially for F2 communications are on the increase — many with on-board autostart and mailbox facilities. The FCC's approval to amateurs for the transmission of ASCII level signals has opened the door to the use of computers in the rapid-transmission mode. Programs are now being sent over the air via RTTY between computer owners. Experimentation in digital data techniques is revealing some interesting information and will certainly be of benefit to the specialty radio amateur.

Satellite communications has played a very important role in the development of specialized communications. All of the OSCAR satellites — from early launchings that were merely test beacons to the more advanced OSCAR 6, 7 and 8 series — communications satellites have been utilized by amateurs all over the world.

Amateur television, both fast and slow-scan, has also grown in numbers of operators. The number of ATV repeaters has grown in the past few years due to the growth in interest and solid state-of-the-art equipment. ATV is being used for many functions other than the thrilling QSO between operators "in-the-shack." The Voyager I and II spacecraft operations were all sent to the public by ATV and SSTV amateurs with a very elaborate setup by the famous W6VIO Club in Pasadena, California.

ATV is used for parade coordinations, marathons, Santa Claus operations, mobile and aircraft communications, Civil Air Patrol assistance, etc. Video equipment for FSTV can be purchased in ready-to-go assembled packages or kit form for less than the price of some 2-meter rigs. SSTV is growing, especially on HF operation, largely due to digital picture memories and color work. Prices are coming down on this type of equipment, so it is not necessary to spend a small fortune to get into SSTV. Recent developments by Clay Abrams, K6AEP, and programs for the TRS-80C (Radio Shack) Computer to allow CW/RTTY and SSTV transmit and receive capability gives newcomers a choice of computerized operation for under $400.

Information about this growing area of specialized communication is available from several club newsletters and periodicals such as *AMRAD, W6VIO Calling, SCAL ATV, CARRS, BARTG* and *AMSAT*. A full-coverage magazine published six times per year (48 pages) is **A5 ATV Magazine** at $10 per year (U.S.) subscription rate, P.O. Box "H", Lowden, IA 52255. □

---

## RTTY — dumb?

Well, not quite. Lots of people know all about RTTY. It cruds up part of the 20-meter CW band with noises like "deedle deedle," and is done with machinery that is noisy, horribly expensive, and breaks down all the time, and can only be repaired by the former chief mechanic for Studebaker who now lives just outside Bogart, Georgia and spends his time as curator of the National Hitch Ball Museum.

Well, that's partly true. Some of the older gear is like that. But it really doesn't break much, and when it does, can be easily fixed by the average brain surgeon. But that stuff can be had for cheap now that the electronic boxes are commonly available. With the old mechanical machines, you can get on RTTY now for a couple of hundred bucks. With more modern, *SILENT* electronic/video RTTY gear, you can get on the air for about $500.

But why, you say, would anybody want to play RTTY, anyway? The main thing that most RTTY folks seem to enjoy is a good ragchew. Folks on RTTY hardly ever have a QSO of less than a half hour. If you like to go on for a bit with the other guy, RTTY is for you. Even rare DX is not interrupted on RTTY. However, if you are the 5/9-good-luck-in-the-contest type, you won't like it a bit. Also, the pace is slower, which gives you a minute to think about what the other guy has said, and think about what you want to say back, so the conversation has a nice slow, friendly, comfortable pace. And if you like, you can get a printer and keep a copy of the QSO. But mainly, it's fun!
*—Atlanta Radio Club, GA* □



• People reaching People •
Amateur Radio is what Worldradio is all about.

# Westlink — news service for hams

*This is the fourth 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. Bill — the author of the series — is currently producer of the Los Angeles, California network. Last month, Bill wrote that Westlink's most important aspect of news-gathering is via the telephone.*

Press releases are another informational source. Most are fairly simple and accurate, but now and again we get one that seems suspicious. They are handled the same way as phoned-in stories, thought if enough lead time exists, we will save money by writing for more details. Some press releases, like one recently received from a group trying to set up a legal defense for a convicted jammer who had his ticket pulled by the FCC, are of such a nature that they immediately get the "circular file." Especially when the person or group issuing such a release does not have enough courage to sign it except with a letter or other meaningless marking.

For those of you not aware, the "counter-culture" in Amateur Radio is fairly well-organized in some areas and is bent on destroying the traditions we value. When it comes to making a decision between what is "news" and what is simply "propaganda" for an anti-social cause, I take the position that giving such counter-culture organizations recognition is to give them validity.

Some may feel this is suppressing news, but is it when you receive such a release which has the sole purpose of giving justification to illegal actions? Is it suppression of information to refuse to detail a release filled with hate, filth and four-letter words? I think not. To this reporter, spewing hatred is not news. This is not to say that every item we cover is of a happy nature.

Staying with the malicious interference issue for a moment, we at Westlink were the first to bring the problem to the attention of the amateur community. We interviewed FCC officials and amateurs who were trying to work toward a solution to the problem. We spoke with well-known political figures and ARRL officials similarly involved. It was the one time we took a public stand on an issue by requesting that amateurs send QSL cards to their respective legislators asking that they make the malicious interference issue a priority for the FCC. The results were thousands of such cards being sent to senators and congressmen and the ensuing clean-up campaign of our bands.

It was Westlink legal reporter Joseph Merdler, N6AHU who spearheaded this anti-malicious interference campaign, and thanks to his efforts and those of countless others, our bands have been returned to the law-abiding amateurs for their use and not that of those bent on destroying the service. The fight is not over, but operation on all bands is a darn sight better than it was three years ago.

Another story we are proud to have been a part of is that of the destruction of an organization known a few years back as "The Communications Attorney Service," along with its president — one Richard B. Cooper. This took place during the late '70s, for you newcomers, and concerned a self-professed legal type that set up an organization which — for a price — claimed it would protect CBers (and amateurs) from prosecution by the FCC for various rule violations. This was the "hey-day" of CB, when every car on the road was sporting an 11-meter whip in the trunk and a "$39 Super-Whizbanger" under the dashboard. Anyhow, Cooper decided he was big enough to take on the amateur community.

In public statements, he made the claim that he was going to get all the amateur frequencies for Class D CB, and that he was going to file suit against the ARRL, FCC and various other things. Cooper was big news, but he made one fatal mistake. Actually two. First, he took on the amateur community, not knowing that we would fight his kind as though he carried the plague. More importantly he had an ego that wouldn't quit, and that served as his undoing. "Old Rick" could never remember from week to week what he had said previously, and exaggerated his claims to power as time went on. He also let Jim Hendershot interview him regularly — on tape, no less — and one didn't have to be an expert to pick up on the false claims. Among those who did was the California State Attorney General who used copies of a number of tapes we provided in building his case against Cooper and his Communications Attorney Service.

Cooper skipped town, and possibly the country, before the Attorney General could act, but his real undoing came as a result of Jim Hendershot's Westlink reports, pointing out Cooper's lies week after week.

Had Westlink not been around, who knows . . . we all might be saying "10-4 Good Buddy" today. That, or collecting stamps. Listening to those old tapes as I do from time to time, I can only say that while Cooper had guts, Jim Hendershot had far more. In reality, Jim and Westlink are the reason that Cooper has faded to oblivion. Hmmm . . . Wonder whatever happened to him anyhow? Anybody know? It would make an interesting follow-up story.

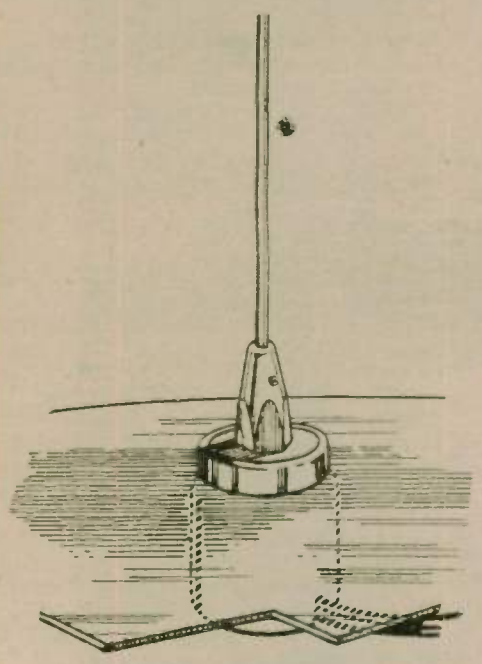
*(Continued next month)* □


## 'Unique antenna'

"Unique antennas for unusual applications." That's how John Beaman, vice president of Larsen Electronics, describes the firm's Hidden Half Wave series.

According to Beaman, the HHW's electrical design is based on the Larsen Omni series, developed for non-groundplane applications. Like the OM series, the HHW is available as a single half-wave element at VHF frequencies and as both a single half-wave and a ⅝s over ⅝s collinear at UHF frequencies.

The HHW packages the OM technology in a new way, with the antenna mounting surface between the radiating element and the loading coil, putting the coil inside the vehicle. The coil is protected from breakage, weather and theft and looks more like an automobile radio antenna.



Beaman says he hears about new uses for the versatile HHW all the time. "It's been installed in PVC pipe, on garbage trucks, mounted on the bottom of a helicopter and used in oil exploration for short-range seismic telemetry. Some law enforcement agencies install the HHW on a plastic light bar assembly, so the external electronics are in the bar for easy installation."

Unusual applications are usual for Larsen Electronics, especially with their Hidden Half Wave antenna.

For more information, contact Larsen Electronics, P.O. Box 1799, 11611 NE 50th Ave., Vancouver, WA 98668; (206) 573-2722.

## Two-meter mobile transceiver

The latest additions to the Trio-Kenwood line of 2-meter mobile transceivers are the TR-7950 and TR-7930, identical in features except for RF output, a husky 45 watts for the TR-7950, and a more modest 25 watts for the TR-7930. Most notable features include a large, easy-to-read LCD display, 21 multi-function memories, automatic offset, programmable priority channel, memory and band scan, long-life lithium battery memory backup (est. five-year life), built-in 16 key autopatch, and a host of accessories, including an optional 3-frequency subtone unit, with keyboard selectable subtones.

The TR-7950 carries a factory-suggested retail price of $399.95, with the suggested retail price for the TR-7930 being $359.95.

Additional information on these models may be obtained by contacting the local Kenwood dealer, or by writing to: Trio-Kenwood Communications, 1111 West Walnut St., Compton, CA 90220.

## SSTV tuner

A must for the slow scanner. The new "Blinky" Model 959 is an SSTV tuning unit consisting of an op amp limiter amplifier and six active precision-tuned filters, providing a visual blinking LED indication when a received SSTV signal is in perfect tune. The user simply tunes until all six LEDs are lit at the same time. At this point, both the audio and video signals are exactly tuned. No more missed frames. Tune the picture the instant you hear it. Eliminate the need for tuning for best audio, after you've missed the pictures.

Installation is simple. Just connect to speaker and 12 to 16VDC. "Blinky" Model 959 is made in the USA by TimeKit. The tuner sells for $89.50 and may be ordered from TimeKit, P.O. Box 22277, Cleveland, OH 44122. VISA and MasterCard welcome.

## Photo Stamps

Photo Stamps are miniature photographs, 50 to a sheet — just like you would get at the post office, but with *your* photo. They are available in either black and white or color. There are two styles to choose from: regular (as shown here) and personalized, which can include up to three lines of type.

Prices are: $8 for 50 B&W regular stamps; $12 for 50 B&W personalized; $10 for 50 color regular; $15 for 50 color personalized. Add $2 for postage and handling. Dimensions: 1½" × 1".

To order, just send a photograph (no slides or negatives, please) to: QSL Photo Stamps, 2301 Kingsman Lane, Virginia Beach, VA 23456. Please allow three weeks for delivery.

## 440 MHz fixed station vertical

Now your 430-450 UHF amateur fixed station antenna requirements can be filled with the same quality and performance as found in the popular Hustler models G6-144 and G7-144 for 2 meters and G7-220 for 1¼ meters.

The new G6-440 delivers 6dBd in an omnidirectional pattern with the major lobe at the horizon, making it ideal for repeater use.

The stack of ⅝-wave vertical radiators is sealed in a white fiberglass radome for all-weather use. Mounting support is aluminum with stainless steel hardware.

No tuning is required as resonance is factory-adjusted to 440 MHz with a bandwidth of 18 MHz under 2:1 VSWR.

List price for the G6-440 is $149.95. For more information, contact your local dealer or write Hustler, Inc., 3275 North B Ave., Kissimmee, FL 32741.

## 6-band HF vertical

Hustler has announced the availability of their new 6-BTV 6-band trap vertical for the HF ham bands.

Based on the long-popular 4-BTV, the new 6-BTV offers full band coverage on 10, 15, 20, 30 and 40 meters under 1.5:1 VSWR and more than 100 kHz bandwidth on 75 or 80 meters under 2.0:1 VSWR.

Fiberglass reinforced high-Q traps, extra strength aluminum components, and stainless steel hardware combine to make the new 6-BTV the most rugged, high-performance HF vertical available.

The 6-BTV list price is $199.95. For more information, contact your local dealer or write Hustler, Inc., 3275 North B Ave., Kissimmee, FL 32741.

## VIC-20 MICRO LOG

VIC-20 MICRO LOG is a multi-purpose amateur logging management system for the VIC-20 Personal Computer. Minimum requirements for using MICRO LOG are a VIC-20 computer with 8K memory expansion and a cassette deck. Options include increased memory, to handle a larger database; a printer, such as the VIC 1525 printer, for hard copy; and a disk drive, for faster retrieval of your logs.

NOTE: A printer is highly recommended in order to use this program to its fullest advantage. MICRO LOG will allow you to construct, sort, maintain and print out your QSO information. It is specifically designed for contest logging (including dupe checking). Due to the user-specified record format, almost any contest format is possible, including your own WAS, DX-CC, etc. The number of records that can be handled by MICRO LOG is determined by the amount of memory your VIC has, as well as the complexity of the record format you choose. An 8K expansion will allow about 250 to 300 calls maximum.

VIC MICRO LOG is available on cassette tape for $9.95 or on diskette for $12.95 plus $2 shipping and handling per order from RAK Electronics, P.O. Box 1585, Orange Park, FL 32067-1585.

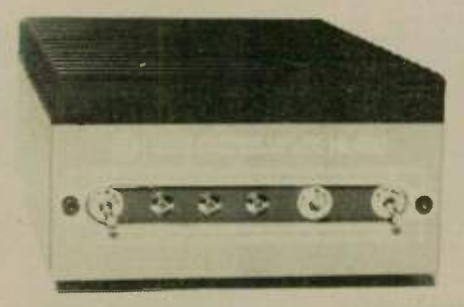
●●●

**When submitting photos, please *DO NOT* write on the backs of them — they often stain the fronts of other photos, making them unusable.**

## UHF linear amplifier

Optimize your range on UHF with the newest UHF linear amplifier, the HL-45U from Tokyo Hy-Power Labs. This amplifier is designed for use with 10 watt output 430-450 MHz crystal-controlled or synthesized rigs. It takes 10 watts and turns it into a solid 40 watts output for the kind of signal strength you need to keep you solid into those presently noisy or scratchy repeaters, plus provides a receiver preamp for best sensitivity.

Input for the HL-45U is 2 to 15 watts with output of 10 to 45 watts. It operates from a 13.8 volt DC source and draws 7 amps at 45 watts output. It is all-mode (SSB, CW and FM), has a built-in 12dB low-noise receiver preamplifier, and utilizes carrier-operated switching (COX).



The HL-45U measures 124×68×170 m/m (4.9×2.7×6.7 inches) and weighs 1.25 kg (2.76 lbs.). It has three switches and three LEDS on the front panel. The switches are as follows: SSB/FM, power on/off, and receiver preamp on/off. The LEDS are "ON AIR" (green), power (red), and "RX" preamp (red). Suggested retail for the HL-45U is only $199.95.

The HL-45U complements the already existing line of THL UHF amplifiers, which include the HL-20U (1-3W drive 15-25W output) and the HL-90U (10W drive 80W output).

For more information on these and other Tokyo Hy-Power Labs products, write THL Sales Department, Encomm, Inc., 2000 Ave. G Suite 800, Plano, TX 75074, or call 214-423-0024.


## West Coast VHF/UHF Conference

The West Coast VHF/UHF Conference, sponsored by the W6GD UHF SOCIETY, will be held 7-8 May at the Sunnyvale Hilton Inn, 1250 Lakeside Drive, Sunnyvale, CA 94086.

Advance registration is $8, at the door $10; pre-registration cutoff date is 27 April.

Among the featured events will be manufacturers' and homebrew displays; DX and contest operating; use of computers for circuit design; Saturday evening banquet; and a swap and flea market. A special VHF/UHF conference room rate of $23 per person/double occupancy will be available at the Sunnyvale Hilton Inn.

For more information, write to: West Coast VHF/UHF Conference, P.O. Box 4101, Fremont, CA 94539. □

## California

The NORTH HILLS RADIO CLUB announces the 11th Annual Sacramento Valley Amateur Ham Swap, which will be held 1 May, 9:00 a.m. to 3:00 p.m., at the Placer County Fairgrounds, off Hwy. 65 in Roseville.

Admission is free. Tables are $8 on site; $6 in advance. Features include auction, food, raffles and prizes.

Talk-in on 144.59, 145.19, 223.18 and 224.78.

For information, contact Doug Long, KB6ZR, 8810 Swallow Way, Fair Oaks, CA 95628; or Bob Fieldson, WB6WZA, 10526 Saltana Way, Rancho Cordova, CA 95670 (635-5662). □

●

The FRESNO AMATEUR RADIO CLUB announces the 41st Annual Fresno Hamfest, to be held 20-22 May, at the Hacienda Resort and Convention Center.

Technical sessions, transmitter hunt, ARRL forum, swapmeet, left-foot CW contest, golf tournament, wine tasting, luncheon program and prizes. An outdoor buffet banquet will be held Saturday next to the Olympic-sized pool. Full registration is $25 before 14 May, $27 after 14 May. Day registration is $7.50. Full registration needed for prize eligibility. Banquet only is $15 before 14 May; $17 after 14 May. Tour-Fontainebleau underground gardens is $3. RV parking (self-contained only) $10. Registration is 5:00-7:00 p.m., Friday, 20 May; 8:00 a.m. to 3:00 p.m., Saturday, 21 May.

Talk-in on 146.34/146.94.

To register, write to Fresno Hamfest, P.O. Box 783, Fresno, CA 93712; make checks payable to Fresno Amateur Radio Club. □

## Georgia

The ANDERSON, HARTWELL and TOCCOA AMATEUR RADIO CLUBS will hold the 5th Annual Lake Hartwell Hamfest on 21-22 May, at the Lake Hartwell Group Camp, located on Highway 29, four miles north of Hartwell, Georgia.

Features include free admission, free camping and free flea market space. Activities include a left-footed CW contest, horseshoes, bingo, and many other activities for the whole family. Fishing, swimming and camping are available on the site. The campgrounds open at 6:00 p.m. on Friday; the main prize drawing will be held at 2:00 p.m. on Sunday.

Talk-in will be on 146.19/.79, 147.93/.33 and 146.895/.295.

For further information, contact Ray Pettit, WB4ZLG, Rt. #1, Dooley Dr., Toccoa, GA 30577. □

## Idaho

KOOTENAI RADIO SOCIETY proudly presents Hamfest '83 at the North Idaho Fairgrounds, Coeur d'Alene, on Saturday, 11 June, 8:00 a.m. to 4:00 p.m. Free swap tables, large RV parking area, continuous prize drawings throughout the day, food on the grounds.

Talk-in frequency 146.38/98 or 146.52 simplex.

For further information, contact: Vladimir J. Kalina, KN7K, South 1555 Signal Point Road, Post Falls, ID 83854. □

## Illinois

The 14th Annual Danville Area Hamfest, sponsored by the ILLIANA REPEATER SYSTEMS, will be held Sunday, 22 May, at the Georgetown, Illinois Fairgrounds.

Free parking, flea market, forums, family entertainment, ladies free bingo and hourly drawings are only a few of the features of this hamfest. Gates will open at 6:00 a.m. Tickets are $1.50 in advance or $2 (three for $5) at the gate.

Talk-in on 22/82 and 146.52.

For more information, contact Wendell Lyons, 930 East Polk St., Danville, IL 61832; (217) 431-2124. □

●

The SIX METER CLUB OF CHICAGO, INC. is pleased to announce its 26th annual hamfest. This event is to be held Sunday, 12 June, at Santa Fe Park, 91st and Wolf Road, Willow Springs, Illinois (southwest of downtown Chicago).

Advance registration is $2, $3 at the gate. There will be a large swappers row, prizes, picnic grounds, refreshments, and plenty of parking space. Gate opens at 6:00 a.m.

Talk-in on K9ONA 146.52 or K9ONA/R 37-97.

Advance tickets can be purchased from Val Hellwig, K9ZWV, 3420 South 60th Ct., Cicero, IL 60650. □



## Indiana

The TRISTATE AMATEUR RADIO SOCIETY (TARS) will hold their annual hamfest on Sunday, 15 May, at the Vanderburgh County 4H Center, Evansville, Indiana. Grounds open at 6:00 a.m. CDT. Admission $2. Air-conditioning inside; also outdoor flea market. Tables available.

Talk-in on 147.75/.15 and 146.19/.79.

For information and table reservations, contact Hal Wilson, WB9FNN, R.R. #8, Box 427B, Evansville, IN 47711. □

●

The WABASH COUNTY AMATEUR RADIO CLUB will be sponsoring the WCARC Hamfest on 15 May, at the Wabash County 4-H Fairgrounds, Wabash, Indiana. Hours are 5:00 a.m. to 4:00 p.m., *rain or shine.*

A flea market (tables available), free overnight camping, prizes, refreshments and bingo for the ladies. Tickets are $2.50 advance, $3 at the door.

Talk-in on 147.63/03, 146.52/52 and 146.94/94.

For ticket information, send SASE to Dave Spangler, 45 Grant St., Wabash, IN 46992. □

●

Sunday, 22 May is the date set for the 4th Annual MUNCIE AREA AMATEUR RADIO CLUB (MAARC) Hamfest. Location will be the Memorial Building on the Delaware County Fairgrounds.

Two new features this year will be the inclusion of several computer displays and the 1st Annual Middletown USA QSO Party, which will be run during this weekend. The MAARC station will be in operation from the hamfest site. Sunday, 22 May will be proclaimed "Middletown USA Day" by the mayor.

Tables will be $5 each; advance admission $2. Display area is completely enclosed, with security provided during entire show. Electrical hookups also provided. Prizes to be given away.

Talk-in frequencies: 146.13/73, 146.52, 223.10/224.70.

For further information, contact Craig Graham, WD9EHF, R.R. 12, Box 86, Muncie, IN 47302. □

●

The 37th Annual WABASH VALLEY AMATEUR RADIO Hamfest will be Sunday, 5 June at the Vigo County Fairgrounds, Terre Haute, Indiana, located on US-41, one-half mile south of I-70. Open Saturday for overnight campers ($3 fee); open Sunday at 0800 EST.

Free outdoor flea market, covered flea market $3 for a 12′ X 12′ space. Some air conditioning and tables available on first-come basis. Food and refreshments, Giant shopping mall nearby. Computer and ARES forums, also. Advance sale tickets $2 or three for $5; $3 at gate. Children under 12 free.

Talk-in on 25/85 and 52 simplex.

For tickets and information SASE to WVARA Hamfest, P.O. Box 81, Terre Haute, IN 47808. □

## Maryland

The 9th Annual EASTON AMATEUR RADIO HAMFEST is on 15 May, rain or shine, from 8:00 a.m. to 4 :00 p.m. in the Easton Senior High School Cafetorium on Route 50, just south of Easton at mile marker 66. Admission is $2 with additional $4 for tables or tailgaters.

Talk-in on 146.445/147.045 and 52 simplex.

Write Van Herridge, WB3HGQ, Box J, St. Michaels, MD 21663 or Easton Amateur Radio Society, Inc., Box 781, Easton, MD 21601. □

## Michigan

WEXAUKEE AMATEUR RADIO ASSOCIATION announces its 23rd Annual Swap Shop and Eyeball QSO, to be held Saturday, 14 May, 8 a.m. till 2:30 p.m., in Wexford Civic Arena, north end of Cadillac on U.S. 131.

Talk-in on WA8SUE/R 146.37/.97. Camping available in the area. Transportation will be available for anyone wishing to fly in.

For further information, please write to Wexaukee Amateur Radio Association, P.O. Box 163, Cadillac, MI 49601. □

●

The CHELSEA SWAP AND SHOP will be held on Sunday, 5 June, at the Chelsea Fairgrounds, Chelsea, Michigan. Gates will open for sellers at 5:00 a.m. and for the public from 8:00 until 2:00 p.m. Donation is $2.50 in advance or $3 at the gate. Children under 12 and non-ham spouses are admitted free.

Talk-in on 146.520 simplex and 147.855 Chelsea repeater. For more information, write to William Altenberndt, 3132 Timberline, Jackson, MI 49201. □

●

The CENTRAL MICHIGAN AMATEUR REPEATER ASSOCIATION announces the 9th Annual Midland Hamfest, to be held Saturday, 11 June, at the Midland Armory in Midland, Michigan.

Hours will be from 8:00 a.m. till 2:00 p.m. set-up at 6:00 a.m. Overnight parking at fairgrounds $5. Tables (7-ft.) are $6 each. The display area will be large and well lighted. Lunches on site. Free parking.

Talk-in on 146.07/67 and 146.52 simplex.

For advance reservations, contact Larry Crook, N8CCD, 3117 Sharon Rd., Midland, MI 48640; 517-631-6849. □

## Minnesota

The NORTH AREA REPEATER ASSOCIATION will sponsor the state's largest swapfest and exposition for Amateur Radio operators on 4 June at the Minnesota State Fairgrounds in St. Paul. Free overnight parking of self-contained campers on 3 June. Call wide-area repeaters 25/85 or 16/76 for directions. Exhibits, booths, giant outdoor flea market and prizes. Admission $4.

For more information or dealer inquiries, write Amateur Fair, P.O. Box 857, Hopkins, MN 55343, or call (612) 420-6000. □

## Missouri

The INDIAN FOOTHILLS AMATEUR RADIO CLUB announces its 8th annual hamfest, to be held 15 May at the Saline County Fairgrounds, Marshall, Missouri.

Registration will begin at 8:00 a.m. Tickets are $2 each or three for $5 at the door; four for $5 in advance. No charge for flea market tables; reservations requested. Displays, prizes, refreshments, lunch and XYL activities will be featured. Campgrounds will also be provided — no connections for utilities.

Talk-in on 147.84/24 and .52.

For information and/or tickets, contact Fr Fellers, WØABW, 703 North Main St., Carrollton, MO 64633; (816) 542-0223, 542-2655, or 886-2837. □

●

The 8TH ANNUAL COLUMBIA HAMFEST will be held Saturday, 21 May at the Columbia Ramada Inn, Columbia, Missouri. A banquet will be held Friday, 20 May; keynote speaker will be Joel Kleinman, N1BKE, Assistant Managing Editor of QST Magazine. Commercial exhibitors will be provided indoor display areas within the Ramada's 15,000 sq. ft. carpeted, air-conditioned convention center. Commercial exhibitors may set up immediately following the Friday banquet.

Hamfest features will include forums, amateur organization meetings, prizes and displays. Reserve one display table (3 × 8 ft.) for $25 each; additional tables $10 each. Reservations at the Ramada Inn are $37 single, $43 double. Banquet tickets are $12 each.

For more information, write to: Columbia Hamfest '83, P.O. Box 283, Columbia, MO 65205. □

## Ohio

The FREMONT, OHIO RADIO CLUB, in cooperation with the OTTAWA COUNTY RADIO CLUB, is sponsoring their 6th annual hamfest, to be held 22 May at the fairgrounds in Fremont, Ohio. Gates open at 8:00 a.m. Dealer set-up 7:00 a.m.

Talk-in 31/91 and 52.

Prizes and flea market; advance tickets $2.50, $3 at the door. Tables are $3 per 8 feet for tickets and table reservation. Send SASE to John Dickey, W8CDR, 545 N. Jackson St., Fremont, OH 43420; 1-419-332-8066. □

## Pennsylvania

The WARMINSTER AMATEUR RADIO CLUB announces its annual hamfest to be held Sunday, 15 May, at the Middletown Grange Fairgrounds, Penns Park Road in Wrightstown, Pennsylvania (Philadelphia area).

Doors open 7:00 a.m. until 2:00 p.m. Prizes all day and refreshments available. ARRL approved.

Admission is $3 per amateurs; sellers $2 additional per 8-foot space. Inside spaces avail

able, no power. Pre-registration before 1 May, $2 per amateur.

Talk-in 147.69/09 and 146.52 simplex.

For info, contact WARC, Box 113, Warminster, PA 18974. Or call Frank Kerns, AK3O, 215-968-3133 after 2300 UTC. □

●

The 29th Annual BREEZE SHOOTERS HAMFEST is Sunday, 22 May, 9:00 a.m. to 5:00 p.m. at the White Swan Amusement Park, PA Rt. 60 (Parkway West), near the greater Pittsburgh International Airport. Free flea market, free admission. Youngest and oldest ham prize, 10-meter mobile check-in prize, family amusement park. Registration is $2 or three for $5. Under-roof tables for vendors by advance registration.

Mobile talk-in on 146.28/.88 MHz or 29.0 MHz. Please contact Don Myslewski, K3CHD, 359 McMahon Rd., North Huntington, PA 15642; phone 412-863-0570. □

●

The MILTON (Pennsylvania) AMATEUR RADIO CLUB will hold their 12th annual hamfest on Sunday, 12 June, rain or shine, at the Winfield Fire County grounds on Route 15, south of Lewisburg, Pennsylvania and eight miles south of exit 30 on I-80. Hours will be 8:00 a.m. to 5:00 p.m. Please note that this is a location change from last year. More covered spaces are available. Registration $3; wives and children free. Flea market, auction and contests.

Talk-in on 146.37/.97 and 146.025/.625.

For further details, call or write Ken Hering, WA3IJU, RFD #1, Box 381, Allenwood, PA 17810; 717-538-9168. □

## Tennessee

The RADIO AMATEUR CLUB OF KNOX COUNTY will hold its 17th annual hamfest May 28-29 at the Kerbella Temple Auditorium. The auditorium is just east of U.S. 441 at the Tennessee River behind the Vol Inn Motel. Saturday, 9:00 a.m. to 5:00 p.m., and Sunday, 10:00 a.m. to 4:00 p.m. Admission is $2 in advance, $3 at the door. There will be radio and computer forums, dealers, indoor and tailgate flea markets, and prizes, prizes, prizes. Free parking.

Talk-in on 147.90/30.

For tickets, dealer, or flea market information, contact Mark Nelson, AJ2X, 4317 Foley Dr., Knoxville, TN 37918; phone 615-687-9656.

## Washington

The CLARK COUNTY AMATEUR RADIO CLUB (W7AIA) of Vancouver, Washington announces the premier hamfair of the Pacific Northwest Fort Vancouver Hamfair. The hamfair will be held 7-8 May at the Clark County Fairgrounds, 7 miles north of Vancouver (take exit No. 9 on I-5).

There will be unlimited swap tables for ham and electronic equipment at $5 per table per day. Hidden transmitter hunts, technical seminars, ragchews, contests, Saturday night dinner, Sunday morning free breakfast, prizes and entertainment will be among the attractions at this hamfair. Limited hookups for RV's are available at $3 per day — must be self-contained. Registration $4.50; adults' dinner $5.50; kids' dinner (12 or under) $2.50.

Talk-in on 147.84/24, 146.24/84, 146.52/52 and 146.49/49.

Registrations can be mailed to: Ft. Vancouver Hamfair, Registration Chairman, 3305 "G" St., Vancouver, WA 98663. □

●

YAKIMA AMATEUR RADIO CLUB W7AQ presents the Central Washington State Hamfest on 14-15 May. The hours will be 9:00 a.m. to 5:00 p.m. on Saturday, with lunch available, and 8:00 a.m. to 2:00 p.m. on Sunday, with breakfast and lunch. The location is the Hobby Building at the Central Washington State Fairgrounds in Yakima, Washington. Combination registration and prize drawing ticket $4 in advance and $5 at the door. Additional tickets are two for $5. Activities include regional dealers displays and *free* swap and shop with plenty of tables.

Contact Dan Haughton, P.O. Box 9211 Yakima, WA 98909 for pre-registration.

Talk-in 146.01/61. □


## Mt. Saint Helens QSO Party

The Clark County Amateur Radio Club, W7AIA, is pleased to announce the 3rd Annual Mount Saint Helens QSO Party which will be held 21-22 May. This QSO party will mark the third anniversary of the cataclysmic explosion of nearby Mt. Saint Helens. This disastrous volcanic eruption took the life of Reid Blackburn, KA7AMF, who was an active member of this club. Reid was monitoring a USGS observation station near the base of the mountain at the time of the eruption.

Any amateur station making one contact with W7AIA during the two days starting 0001 UTC, 21 May through 2359 UTC, 22 May will be eligible to apply for the Mt. Saint Helens Award, a beautiful certificate featuring a photograph of the mountain two years after the eruption.

Look for W7AIA on the following frequencies (± QRM): *SSB* — 3.895, 7.230, 14.280, 21.360, 28.505; *CW* — 3.705, 7.105, 21.105, 28.105; *VHF* — various Vancouver and Portland area repeaters.

To apply for the award, send log information or QSL card and $2 (or 8 IRCs) to: Awards Manager, W7AIA, P.O. Box 1424, Vancouver, WA 98668.

All proceeds from the award will go to the Reid Blackburn Scholarship Fund which has been established by the Clark County Amateur Radio Club, W7AIA, at Clark College in Vancouver, Washington. □

## Michigan QSO Party

The 1983 Michigan QSO Party will be held 1800Z Saturday, 21 May to 0300Z Sunday, 22 May, and 1100Z Sunday, 22 May to 0200Z Monday, 23 May.

The contest will be sponsored by the Oak Park Amateur Radio Club. Phone and CW are combined into one contest. Michigan stations can work Michigan counties for multipliers. A station may be contacted once on each band/mode. Portable/mobiles may be counted as new contacts each time county changes.

**Exchanges:** RS(T), QSO#, QTH, county for Michigan; state or country for others.

**Scoring:** Multipliers are counted only once. *Michigan stations:* 1 point per QSO × (states + countries + Michigan counties) on phone. Each CW contact is 2 points per QSO. Alaska and Hawaii count as states. VE counts as a country. (Maximum multiplier is 85.) 5 points W8MB *Non-Michigan stations:* QSO points × Michigan Counties. QSO points as follows: 1 point each Michigan phone QSO and 2 points for each CW contact. 5 points for each club station contact with W8MB/W8MB/mobile. Maximum multiplier is 83. *VHF-only entries:* Same as above except multipliers per VHF band are added together for total multipliers. No repeater contacts are allowed.

**Suggested frequenices:** *CW* — 1810, 3540, 3725, 7035, 7125, 14035, 21035, 21125, 28035, 28125; *Phone* — 1815, 3905, 7280, 14280, 21380, 28580; *VHF* — 50.125, 145.025, 146.52.

**Awards:** *Michigan* — Plaques: High Multi-operator score, High Michigan score, High Michigan (Upper Peninsula) score, High aggregate club score and High VHF-only entry (minimum of 100 QSOs), and High Michigan Mobile score. *Certificates* — High score for each county (minimum 50 QSOs). *Out-State* — High Out-State plaque and certificates for high score each state and country.

A log and summary sheet is requested showing the scoring and other pertinent information, name and address in *BLOCK LETTERS*, and a signed declaration that all rules and regulations have been observed. Michigan stations include club name for combined club score. Party contacts do not count toward the Michigan Achievement Award unless one fact about Michigan is communicated.

Members of the Michigan Week QSO Party Committee are not eligible for individual awards. Decisions of the Contest Committee are final. Results will be final on 30 July 1983 and will be mailed to all entries with an SASE.

Mailing deadline is 30 June 1983. Send logs to: Mark Shaw, K8ED, 3810 Woodman, Troy, MI 48084. □

## 'Indy 500 Sprint'

The Indiana Radio Club Council announces the first-ever Indy 500 Sprint. The contest is open to all amateurs, both stateside and DX. Any mode of communication is permissible. There are no limitations on the amateur bands used by competitors.

The contest period will be 500 minutes in length, from 2100 GMT on Saturday, 28 May to 0520 GMT on Sunday, 29 May. All entrants must make at least two "pit stops" during the contest period of at least 15 minutes each.

Scoring: 1 point for each contact with a station outside Indiana; 2 points for each contact with a station in Indiana; 5 points for each contact with a station on the grounds of the Indianapolis Motor Speedway. Stations may be worked only once, per mode, per band.

Suggested frequencies: 3740, 3910, 7140, 7290, 14090, 14290, 21140, 21390, 28140, 28590, 147.51. **Note:** Contacts made through repeaters will *not* count!

The contest exchange will consist of the following information: A) Signal report; B) state, province or country; C) your guess as to the winner of the race. (Example: 59 / Nebraska / Foyt)

Prizes will be awarded to the top scorer in each U.S. call district, the top Canadian entry, and the leading scorer from each DX country.

Mail entries to: Ray Weghorst, W9OBF, 3030 Marquette Court, Indianapolis, IN 46268.

## CARTG RTTY DX contest results

The Canadian Amateur Radio Teletype Group (VE3RTT) announces the results of its 22nd Annual RTTY DX "Big Smoke" Sweepstakes.

**Single Operator scores**

| | | |
|---|---|---|
| * | 1. JA6GIJ | 2,538,634 |
| * | 2. YU7AH | 2,379,648 |
| * | 3. W3FV | 2,205,018 |
| * | 4. VK2SG | 2,063,824 |
| * | 5. SM6ASD | 2,032,302 |
| * | 6. K4AGC | 1,791,296 |
| * | 7. I0UIQ | 1,582,788 |
| * | 8. I1TXD | 1,577,880 |
| * | 9. DJ6JC | 1,484,808 |
| * | 10. IS0VSA | 1,356,578 |
| * | 11. ON7EP | 1,351,568 |
| * | 12. I4JXE | 1,270,702 |
| * | 13. K0JH | 1,218,006 |
| * | 14. VE2AXO | 945,600 |
| * | 15. WB5HBR | 924,038 |
| | 16. K1LPS | 868,955 |
| * | 17. K6WZ | 700,720 |
| * | 18. VE7YD | 663,484 |
| * | 19. VE8CM | 640,062 |
| | 20. VE2JR | 630,496 |
| | 21. W6JOX | 536,720 |
| | 22. DL1VR | 511,360 |
| | 23. VE7CIM | 481,340 |
| | 24. W7MI | 395,600 |
| | 25. GW3EHN | 294,000 |
| | 26. HZ1AB | 242,790 |
| | 27. PA3BLU | 212,480 |
| | 28. VE7VP | 189,500 |
| | 29. TI2DO | 160,560 |
| | 30. WD0FSJ | 139,330 |
| | 31. DJ9IR | 114,980 |
| | 32. WA6WGL | 100,992 |
| * | 33. KM5D | 99,408 |
| | 34. VE5RC | 90,268 |
| | 35. AE5H | 87,120 |
| | 36. DF7FB | 82,520 |
| | 37. VE7BDQ | 59,470 |
| | 38. VE7EJ | 55,908 |
| | 39. OK2SPS | 48,344 |
| | 40. DJ1XT | 45,120 |
| | 41. VE5WZ | 39,688 |
| | 42. JR6AG | 29,072 |
| | 43. KE6T | 28,804 |
| | 44. AB0Y/4 | 27,080 |
| | 45. HB9BZZ | 23,940 |
| | 46. K8CV | 21,110 |
| | 47. WB4UBD | 20,740 |
| | 48. K0BJ | 14,840 |
| | 49. HB9BQL | 14,760 |
| | 50. DK5KJ | 11,468 |
| | 51. DF6ZY | 9,780 |
| | 52. LA2IJ | 9,521 |
| | 53. SM7ABL | 9,260 |
| | 54. DF5BX | 8,772 |
| | 55. OZ1GRF | 7,195 |
| | 56. SM6EKP | 4,032 |
| | 57. SM5HQN | 1,260 |
| | 58. Y37UF | 640 |
| | 59. W8TCO | 500 |
| | 60. SM5AAY | 174 |
| | 61. DK4IS | 132 |

(*Denotes WAC)

**Multi-Operator scores**

| | | |
|---|---|---|
| * | 1. LZ1KDP | 3,845,966 |
| * | 2. OH2TI | 1,396,738 |
| | 3. VE3UR | 241,415 |
| | 4. KC4AAA | 236,216 |
| | 5. OK3KII | 211,008 |
| | 6. OK1OAZ | 98,870 |
| | 7. OH8TA | 79,300 |

A total of 78

**SWL Printer**

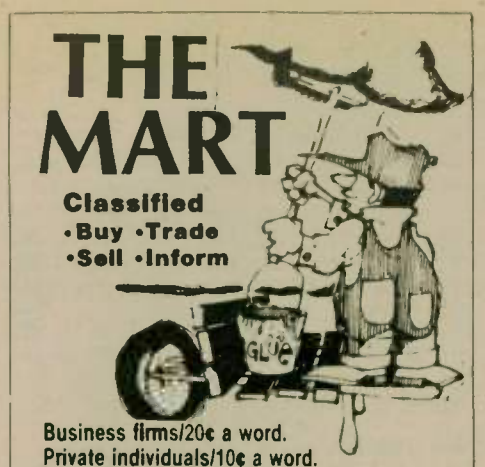
| | | |
|---|---|---|
| * | 1. OZ-DR21355 | 1,439,492 |
| * | 2. DE1GMH | 380,470 |
| * | 3. NK-4483 | 180,120 |
| * | 4. DE4TTY | 134,490 |

**Check logs**
SM6AEN
DF9XI

**Awards**

Top 10 high scores: 1) M. Hayashi, JA6GIJ; 2) Arpad Sarzeki, YU7AM; 3) Barry Gardner, W3FV; 4) S.E. Molen, VK2SG; 5) Bo Stjernberg, SM6ASD; 6) Leo Small, K4AGC; 7) I0UIQ; 8) I1TXD; 9) Heinrich Lumpe, DJ6JC; 10) Vincenzo Saccu, IS0VSA.

Congratulations to winners of engraved plaques sponsored by the RTTY Journal and the Canadian Amateur Radio Teletype Group (CARTG). **Canadian High Score** — Robert Loranger, VE2AXO with 945,600 points, winner of the President CRRL Award Plaque. **Green RTTYer** (first RTTY contest) — Vincenzo Saccu, IS0VSA. **Station contacting the most Canadian stations** — Bill Slaughter, VE7CIM, with 34 Canadian contacts. Plaque by Fraser Jamieson, VE2JR. **Multi-Operator high score** — LZ1KDP with 3,845,966 points. Winner of plaque sponsored by a CARTG member. **SWL Printer high score** — OZ-DR2135 with 1,439,492 points. CARTG plaque. □




Business firms/20¢ a word.
Private individuals/10¢ a word.
Mart deadline/20th of the month.

**THE MART** *Worldradio*
2120 28th St., Sacramento, CA 95818

**MOBILE IGNITION SHIELDING,** provides more range with no noise. Available most engines in assembled or kit forms, plus many other suppression accessories. Free literature. ESTES ENGINEERING, 930 Marine Drive, Port Angeles, WA 98362.

**QSLs & RUBBER STAMPS — TOP QUALITY!** State Outline, Straight Key, Space Shuttle QSLs and More! Sample Pack - 50¢ - EBBERT GRAPHICS, Dept. 1, Box 70, Westerville, OH 43081.

**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.

**SUBSCRIBE TO THE *DXers Magazine.*** Gus Browning, W4BPD, editor. Only $15.00 per year. The DXers Magazine, Drawer DX, Cordova, SC 29039.

**BUYING OR SELLING?** An ad in **Worldradio** makes it happen FASTER.

**QSLS. QUALITY AND FAST SERVICE FOR 23 YEARS.** Include call for free decal. Samples 50¢. Ray, K7HLR, Box 331, Clearfield, UT 84015.

**CDE ROTOR OWNERS** — You need a "D-Lay-5"! This easy-to-install circuit protects the rotor from damage caused by accidental braking. Works with the Ham II, Ham III, Ham IV, and Tailtwister models. Provides a five-second safety factor in your rotor brake. Incredible value at $19.95 — Postage paid world wide. LANCE JOHNSON ENGINEERING, PO Box 7363, Kansas City, MO 64116.

**TELETYPEWRITER** gears, ribbons, manuals, parts, supplies and toroids. SASE list. Buy unused parts. TYPETRONICS, Box 8873, Ft. Lauderdale, FL 33310 N4TT.

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

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

**RTTY JOURNAL** — Now in our 30th year. New Beginners Handbook 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.

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

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

**QSL SAMPLES** — 25¢ SAMCARDS, 48 Monte Carlo Dr., Pittsburgh, PA 15239.

**AUTO-CALL KEEPS UP WITH THE LATEST** Ham info from Washington, DC area. Subscription $5.00 a year, sample copies $1.00. Address: AUTO-CALL, c/o W2GHK, 2417 Newton St., Vienna, Virginia 22180.

**BUMPER STICKER** — "My Favorite Radio Station is (your call sign)." Display on car, in shack, anywhere! Nice gift for ham friends. Only $3. ARPRESS, Dept. 5B, 380 Wilbanks, Rome, GA 30161.

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

**INTRODUCING:** Beautiful natural **full color photo QSL cards,** made from your color negative or slide. From $260.00 for 3,000 cards minimum. Free samples, stamps appreciated. K2RPZ, Box 412, Dept. NCW, Rocky Point, NY 11778, (516) 744-6260.

**LEARN CODE THE EASY W6PHA WAY!** — Former USAF code champ gives unique, simple system allowing all ages to learn quickly. No tapes, etc.! Booklet — $4.00 ppd. Includes $5.00 discount coupon toward purchases of GLOBALMAN hand keys, electronic keyers, code practice oscillators. 100% money back guarantee! You can't lose! GLOBAL AMERICA CORP., Box 400WR, El Toro, CA 92630.

**WANTED: POWER-MASTER** for Drake C-4 station console. Bill Jacobs, K3RYA, 208 Sleepy Hollow Road, Pittsburgh, PA 15216.

**SELL NEW COILS AND VARIABLE CAPACITORS.** B&W type 3034 coils, 120uH, $9 each. B&W type 3035 coils, 198uH, $9.50 each. B&W #14 AWG antenna wire, 140 foot rolls, $10 each. B&W Phonepatch, Model 3002W with speech preamp/limiter, $125 each. Miller type 2152 variable capacitors, 40-1,000pF, rated at 1,500 volts, $32 each. Groth type TC-3S turn counters with spin dials, for ¼ inch shafts, $13 each. All items brand new, in original boxes, shipped prepaid by UPS. Send check to Peter Onnigian, W6QEU, 1236 40th Ave., Sacramento, CA 95822. (916)392-8964.

**QSL CARDS:** $12.50/500, ppd. Free catalogue. BOWMAN PRINTING, 743 Harvard, St. Louis, MO 63130.

**WANTED** — old radio transcription discs. Any size, speed, subject. Send full details & price. W7FIZ, Box 724, Redmond, WA 98052-0724.

**ELECTRONIC PARTS CATALOG.** IC's, transistors. Send first class stamp to ALDELCO, 2789 Milburn Ave., Baldwin, NY 11510.

**MIRROR IN-THE-LID,** and other pre-1946 television sets, picture tubes, parts, magazines wanted for substantial cash. Especially interested in any RCA "TRK", G.E. "HM", or Westinghouse "WRT" series set. Arnold Chase, 9 Rushleigh Road, West Hartford, CT 06117. (203) 521-5280.

**CERTIFICATE FOR PROVEN TWO-WAY RADIO CONTACTS** with amateurs in all 10 USA call areas. Award suitable to frame and proven achievements added on request. Send $2 (USA) or $3 (DX) to cover certificate cost. W6LS, 2814 Empire Ave., Burbank, CA 91504.

**CODE PROFICIENCY DRILLS** are transmitted from WB3IVO, BRASS POUNDERS ARC, each Saturday and Tuesday starting 0200Z on 3560 kcs. Each Saturday and Sunday starting 2000Z on 7060 kcs. Monday thru Friday starting 1930Z on 14060 kcs. Speed ranges from 20 to 60 WPM.

**HAMS FOR CHRIST** - Reach other hams with a Gospel Tract sure to please. Clyde Stanfield, WA6HEG, 1570 N. Albright, Upland, CA 91786.

**"MY FAVORITE RADIO STATION IS (your call sign)."** Unique bumper sticker displays your call sign! Only $3. ARPRESS, Dept. 5M, 380 Wilbanks, Rome, GA 30161.

**PICTURE QSLS GET A BETTER RETURN.** 250 B/W from your photo, $23.00. Subject to discount. Samples free. PICTURE CARDS, Box 5471, Amarillo, TX 79107. (806)383-8347.

**KEYER PADDLES,** Iambic, hand crafted for the Elite, with more features, and nicer action. A contest winner. Write E. SNYDER, KA5AEQ, 213 W. Davis, Sapulpa, OK 74066.

**GROUND RADIALS WORK** — Solve your vertical antenna radial problems with the fantastic ground plane one (GP-1). A 10" diameter, 24-point cast aluminum buss that fits any 2" diameter or smaller mast. Radial problems solved for only $24.95. Send an SASE for photos and brochure. Lance Johnson Engineering, P.O. Box 7363, Kansas City, MO, 64116.

**CW IS EASY** — Pass the Extra code exam with SYSTEM EXTRA, a one-hour cassette tape with one side of random code and a second side with six FCC QSO's (20 WPM). Included are FCC type examinations to test your skill. $6.50 post paid. SYSTEM GENERAL, (13 wpm), consists of two cassettes, ten FCC QSO/exams and more text. $12.25 post paid. LANCE JOHNSON ENGINEERING, P.O. Box 7363, Kansas City, MO 64116.

**NOTICE — CW/RTTY** with a Commodore 64. We have a special price of $450.00 on the Commodore 64 in sealed boxes, full warranty. Please add shipping. Personal check OK, 201/962-4072. NARWID ELECTRONICS, 61 Bellot Road, Ringwood, NJ 07456.

**COLLINS** 2.1kHz F455Y21 filter for 75S3B, etc. — $50. Used 4BTV — $60. Four-ft. copper clad ground rods — $3 each, 5/$12.50. Hy-Gain 18AVT vertical — $65. NEED ROHN 25G tower sections, must be in good condition. Derek, KI60, (916)965-1027 days, (916)965-4904 eves., Sacramento, CA.

**WANTED:** Technical Material Corp. PS-4A low-voltage power supply (Military No. PP-2765A:URA-36) for use with PAL-1K(A) linear amplifier. NA6J, 4955 School House Road, Catheys Valley, CA 95306.

**WHEELING WV HAMFEST,** Wheeling Park, Sunday, July 24. Major prizes plus cash award. Dealers most welcome; tables available; indoor displays only; $2 admission fee required, but reserve space. Contact: TSRAC, Box 240, RD 2, Adena OH 43901. (614)546-3930.

**SELL TRI-EX W-51 TOWER** — $550, Ham-M rotor — $75, both — $600. K6DT, Glendale, CA (213)502-0034.

**FIELD STRENGTH METER PLANS:** Radio Shack parts — $1.00 plus S.A.S.E.; + E.D.C., P.O. BOX 4031, Hampton, NH 03842.

**M80 MACROTRONICS INTERFACE** CW/RTTY box wired with cables ready for plug-in, tapes included special. Also TV camera lens many types call KIØY, (314)521-2660, Hazelwood, MO 63042.

**TI 99/4A MORSE CODE PROGRAM.** Sending only in keyboard mode, programmed message mode or random code practice with screen readout: letters only, letters/nos. or letters, nos./punct. Any code speed to 20 wpm, below 13 at 13 wpm rate. Ideal code teacher. Standard basic. Send $15.00 for cassette to AR TECHWARE, Box 15163B, Fort Wayne, IN 46885.

**VIC-20 HARDWARE** and programs, 16K battery backup memory with 8K EPROM and real time calendar clock, RS-232 interface bipolar level and 45 MHz frequency counter, send-receive Morse Code and RTTY programs with interface hardware FSK, EPROM programmer, low cost. Send SASE, Frank Lyman, P.O. Box 3091, Nashua, NH 03061.

**MODEL 28** receive only Teletype machines — $50 each, picked up. C.B. GOODMAN, 5454 South Shore, Chicago, IL 60615.

**CRYSTALS:** FT-243 holder type customed to your frequency (3-9 MHz). We specialize in NOVICE and the new bands. SASE to: Ev. Taylor (W7BYF), 2921 Loyola Dr., Davis, CA 95616.

Be first to know precisely when and where to work all the choice DX. Biweekly LI DX BULLETIN has: Hot DX news — time and frequency of each goodie — QSL info — propagation forecast — and more . . . Send business size SASE for free sample or $12 for 1-year domestic subscription to:

**LONG ISLAND DX BULLETIN**
**PO Box 173, Huntington, NY 11743**

**AMATEUR RADIO REPAIR** calibration — experienced, licensed, reasonable. ROBERT HALL ELECTRONICS, W6BSH, P.O. Box 8363, San Francisco, CA 94128. 408/292-6000.

**HOSS-TRADER ED:** Selling radios far below dealer cost. Telephone "The Hoss" last for the best deal! BIG SALE: new display Drake TR-7A, regularly $1699.00, cash $1319.00; new Astro-Swan 100-MXA solid state transceiver, regularly $699.00, cash $419.00; new ICOM IC-2AT Walkie-Talkie — $219.95; Azden display PCS-4000 — $268.00; new Demo HAM-4 rotor — $179.00; new ICOM 730, regularly $829.00, cash $639.00; new Drake TR-5 — $639.00; new ICOM 25-A — $279.00; new HYGAIN ANTENNA SALE: TH5DXS — $249.00; TH3MK3 — $209.00; new display ICOM 720-A — regularly $1349.00, cash $1039.00. New ICOM 740 — regularly $1099.00, cash $849.00. MOORY ELECTRONICS COMPANY, P.O. BOX 506, DeWitt, AR 72042, (501)946-2820.

**KENWOOD TR7800/SCANNING MIKE,** excellent condition, original carton — $260.00. Motorola 250-watt base station, 6 or 10 meter model 19 RTTY/manuals complete. Make offer. Rcvr R-388 — $150. SP600JX — $125. Last four items, pick up or you ship. K7HRW, (702)972-3933 evenings/weekends.

**ROSS $$$ NEW BARGAINS:** Hustler 5-BTV $98.50, 6-BTV $124.90, 3-TBA Triband beam $189.50, KAYPRO-II portable computer $phone$, ICOM IC-730 $634.90, IC-25A $279.90, IC-4AT, $229.90, IC-2KL $1259.00. Every day is ICOM day at Ross's. Kenwood TR-2500 & PB-25 $phone$, R-600 $289.90, TS-830S $799.90, R-2000 $455.90, DFC-230 $239.90, Yaesu FRG-7700 $389.90, FT-102 $885.90, FT-980 $1279.90, FT-77 $529.90, FT-One with filters $1999.90. Used Dentron MLA-2500 $495.90, Super Tuner 3 KW $159.90, Kenwood TS-120S $449.90, TS-180S/DFC $579.90, TR-2400 $189.90, TR-7600 $195.00, TL-922A $929.90. Limited time offer. Mention this ad to receive these bargain prices! All prices cash, FOB Preston. Closed Monday at 2:00, ROSS DISTRIBUTING COMPANY, 78 South State, Preston, ID 83263. (208)852-0830.

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

**WANTED: OLD TRANSMITTING TUBES** — Commerical and amateur. Help preserve the old bottles for future hams to see and admire. Donations desired, will purchase rare tubes. We pay all packing and shipping. Ye OLDe TRANSMITTING TUBE MUSEUM, K6DIA, 135 Edgewood Dr., Richland, WA 99352.

**NEW, UNIQUE, PHOTO STAMPS** — Add a photograph to your existing QSL card. Beautiful color photographs that look like postage stamps. Just lick and stick one to your QSL for that special QSO. SASE for sample or send snapshot and $12 for sheet of 50. QSL PHOTO STAMPS, 2301 Kingsman Lane, Virginia Beach, VA 23456.

**FOR SALE: KENWOOD VFO-520,** $100. Kantrncs FD-2 CW/ASCII/TTY reader, $250. MFJ 496 super with AFSK, $200. N6EGY. 805/964-8340. Make offer.

**MAGNETIC CALL SIGNS** . . . . Great for your mobile. Easy transfer from one car to another. Your call letters available in the following colors (on white background): black, red, green, blue, brown or orange. $5.00 . . . add $.50 per order for postage. SIGNON . . . 1923 Edward Lane, Merrick, NY 11566.

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

**COPY SATELLITE PHOTO,** weather maps, press photos on our fax machines. We provide the information and the equipment. Catalog $1.00; teletype machines, parts, supplies and manuals. Catalog $1.00: ATLANTIC SALES, 3730 Nautilus Ave., Brooklyn NY 11224. (212)372-0349 — Ask for ED, "WA2FBY".

**BARGAINS:** Cleaning out my shack . . . Send for transceiver, transmitter and accessories list. Lewalski, 1200 Alpine Rd., Walnut Creek, CA 94596.

**WANTED: ATWATER KENT** power supply section for models 40-57. Phone (703)830-2353, N4CZO.

**VIC-20 OWNERS** — FCC type Q&A on cassette tape for Novice, General and Advanced upgrades. Two programs for $3.25. Weiss, 168 Kirch Rd., York, PA 17402.

**R390A SSB ADAPTER** — Excellent SSB, RTTY. No receiver modifications needed — $25. K8EYU/7, 963 Birch Bay Lynden Rd., Lynden, WA 98264. (206)354-5554.

**MINI-DXPEDITION:** Come along with us to Grand Cayman Island (ZF). XYL approved, sun, white beach and no meals to cook. Tri-band & dipoles are up. Send business-size SASE to WB9OTX for more info.

**YAESU OWNERS** — Join your International Fox-Tango Club — now in its twelfth year. Calendar year dues still only $8 US, $9 Canada, $12 airmail elsewhere. Don't miss out — get top-rated FT Newsletters packed with modifications monthly, catalog of past modifications, free advertisements, technical consultation, FT Net (Saturdays, 1700Z, 14.325 MHz), more. 1982 or 1983 newsletter sets $8 each; both $15. Send dues to FT CLUB, Box 15944, W. Palm Beach, FL 33416.

**COMPUTERS & AMATEUR RADIO** is the newest magazine for Hams interested in computers in the shack. Subscribe today: 1 year (6 issues) $6.00. Send to CAR, 1202 E. 23rd St., Lawrence, KS 66044.

**TRS-80C COLOR COMPUTER PROGRAMS** and hardware, Morse Code and RTTY send-receive programs with interface hardware FSK, 20-line parallel I/O card for ROM slot, EPROM programmer, baudot printer patch, single board 6809 control computer with KIM Buss. Send SASE, Frank Lyman, P.O. Box 3091, Nashua NH 03061.

**CHASSIS AND CABINETS** kits. SASE, K3IWK.

**REPLACE RUSTED ANTENNA BOLTS** with stainless steel. Small quantities, FREE catalog. ELWICK, Dept. 476, 230 Woods Lane, Somerdale, NJ 08083.

**WANTED: TEMPO 8120** spkr. and external VFO for 2020. N5ATW.

**DX APARTMENT** for rent. Tower, tribander, dipoles. Glendale, CA area. (213)243-7306.

# EIMAC 3-500Z's

**• Very limited quantity •**

**$170** PAIR
CASH, MO, COD
Add $5 shipping/handling

I pay cash or trade for all types of transmitting or special purpose tubes.

**MIKE FORMAN**
3740 Randolph • Oakland, CA 94602
415-530-8840

**HATS** with name and call $4.95 plus $1.50 postage. SASE for hat information. Colorful QSL's Samples $.50. SPECIALTY PRINTING, Box 361, Duquesne, PA 15110.

**SALE: NEW HILLTOP HOME** — 2 bedrooms, 2 bath, efficiency, downstairs, spectacular view, 30-foot utility pole with tribander beam. Detail pictures to interested. $140,000. Pat Uliano, KV4GD, P.O. Box 7289, St. Croix U.S.V.I. 00820.

**VIC-20 HAM SOFTWARE:** SASE appreciated: Walt, KA9GLB, 4880 N. 49th St., Milwaukee, WI 53218.

**A CLASSIFIED AD PLACED IN WORLDRADIO** will reach the most active, involved Amateur Radio operators. Your ad will be seen here before it will be seen in any other Amateur Radio publication. We get the news out first. Get results from **WORLDRADIO.**

## ADVERTISERS' INDEX



**DISCOUNTS** — Larsen antennas. Price upon request with a large SASE. You will be pleased. Authorized Larsen distributor since 1976. NARWID ELECTRONICS, 61 Bellot Road, Ringwood, NJ 07456.

**LIKE TO BUY-SELL-TRADE!** Subscribe to the *Ham Boneyard!* Published the 1st, 10th and 20th of each month — 36 issues annually. Subscription rate is $12.00 annually. First ad is FREE! Thereafter, $2.00 per each 40-word or less, non-commercial ad; 10¢ per word for commercial. DON'T DELAY! SUBSCRIBE AND RUN YOUR AD TODAY! THE HAM BONEYARD, 364 Kilpatrick Ave., Port St. Lucie, FL 33452, Visa/Master Card acceptable.

**ZX81 AND T1000 USERS.** Send $6.95 for source list of dealers, suppliers, and vendors of software, hardware and pherials, users' groups and clubs, also a free program on cassette. COMPUTER INFO, P.O. Box 1364WR, Suffolk, VA 23434.

**ALTERNATE ENERGY-DC POWER.** Your lawnmower engine, car alternator, and battery with our MARK-VI field controller gives 12VDC field day power all year. Also 110VDC for soldering irons, saws, drills. (Brush type motors) Controller $78.50. Free literature. ELECTRON CONNECTION LTD., P.O. Box 442, Medford, OR 97501.

**COLLINS S-LINE** — 75S-3B (RE) w/500, 200 Hz CW, 32S-3 (WE) w/DX S.P., 312B-4, 516F-2, SM-3, DL-1, all cables, manuals. Immaculate complete station: $1200. Call J. M. Lehrer (N6ACV) at (213)572-4458, weekdays.

**FOR SALE: ALL HEATHKIT STATION** SB104A/w 400 Hz filter, SB644A, SB604, HD 15, HP1144A, HP1144, Heathkit mike, Telex headset w/mike, Auteck audio filter. All manuals and cables. Price $800.00. Don, WB3KUH, 1 (301)866-8674.

**ALL BUNPY LOW PROFILE IC SOCKETS** just one cent per pin. Example 40-pin, $.40. Gould AA nicad 500mAh — 10/$14.50, 100/$125.00. Ham IV rotor — $165.00. Raymond Richard, Rt. One, Box 25E, Clermont, FL 32711. (904)394-2511.

**FOR SALE: SWAN 270B HF** transceiver with Model 14A converter. Asking $195. Will trade for 2-meter mobile and cash offer. Charles Ammons, KF4TA, (912)285-3223, 1305 C Darling Ave., Waycross, GA 31501.

**BUMPER STICKERS:** "dahdidahdit dahdahdidah" or "Hams Do It With Frequency" — $1.00. NORTHWEST BUTTONWORKS, 7805 N.E. 147th Ave., Vancouver WA 98662.

**TOWERS** — galvanized steel stack/crankup. Factory direct savings. CALIFORNIA ANTENNA SYSTEMS, 6020 Windy Ridge Road, Shingle Springs, CA 95682, (916)677-9540.

**COMMUNICATION SERVICE MONITOR LAMPKIN** 107C lkHz to 1 gHz, excellent condition — $1995.00. KEN'S ELECTRONICS, 605 Montgomery St., Napa, CA 94559. (707)224-2493.

**FREQUENCY LIST AND GUIDES.** Confidential, government, weather, ships, coastal, aircraft, World Press services and more. Identifies shortwave stations, covers 3 to 30MHz. RTTY, SSB, CW, FAX. Send for free list of these up-to-date confidential publications. UNIVERSAL ELECTRONICS, 1280 Aida Drive, Reynoldsburg, OH 43068.

**I COLLECT, RESTORE, OPERATE** old military radios. I'm looking for more German and Japanese gear for my collection. Also many US types sought, from earliest thru 1950s (except post-WW2 FM/vhf). Manuals, canvas bags, all access. Special interest in pack sets, CW-portables, foreign equip. Also want regenerative receivers, comm'l types like Mackay #117 or toys, e.g. Knight OceanHopper, 2-trans DXer, Philco, Revell, etc. Tnx! Hugh Miller, KA7LXY, 11206-1 NE, SEA-WA 98125 or (206) 365-3684 Sat. only.

**MUST SELL ENTIRE STATION.** TS 180S (back from factory with WARC bands), PS 30, speaker — $580; Tuner AT200 — $50; Miniquad — $50; Cushcraft 4ATV — $40; KY7H, 600 Highland Park, Missoula, MT 59803. (406)721-3318.

**TRY 10MHz!** New KT30 antenna, ready for use only $27.50. Multi-band "KT5B" covers 160 thru 10M including (WARC Bands) only $59.95. We stock antenna materials, open wire, Coax, Baluns, Insulators, Heavy Duty Brass Roller pully catalog available. KILO-TEC, P.O. Box 1001, Oak View, CA 93022, or call (805)646-9645.

**STOP LOOKING** for a good deal on Amateur Radio equipment — you've found it here — at your Amateur Radio headquarters in the heart of the midwest. Now, more than ever, where you buy is as important as what you buy. We are factory-authorized dealers for Kenwood, Drake, Yaesu, Wilson, Ten-Tec, ICOM, Dentron, Hewlett-Packard calculators, MFJ, Tempo, Regency, Hy-Gain, CushCraft and many more. Write or ' us today for our low quote and try our nal and friendly Hoosier service. OSIER ELECTRONICS, P.O. Box ,500, #9 Meadows Center, Terre Haute, IN 47803. (812)238-1456.

**MBA-RO READER.** Mint condition factory aligned. Includes power supply and tilt stand. Cost net $295. Sell $220. Free UPS. N6HLO, (619)425-1258.

**FREE UPS SHIPPING.** ICOM-R70 — $674.95; Yaesu FRG-7700 — $439.95; Kenwood R-1000 — $419.95, R-600 — $349.95; Sony-2001 — $214.95; Panasonic FR-3100 — $267.95; Bearcat-100 — $288.49; BC-350 — $388.49; Regency-810 — $259.95; JIL-SX-200 — $349.95. Cordless phones, radar detectors, CB's, frequency directories, antennas, much more. FREE UPS SHIPPING to 48 states. Picture catalog — $1.00, (refundable). GALAXY ELECTRONICS, Box 1202, Akron, OH 44309. (216)376-2402.

**TRS-80 COLOR COMPUTER USERS.** Upgrade 4-16K and 16-32K easily. $24.95 Complete with instructions. J & S SALES, P.O. Box 116, Downsville, WI 54735.

**COLLINS KWM-2,** late model round emblem, Waters notch filter, DX Engineering compressor, 516F-2, mint, $825. K6XE, Box 237, Goleta, CA 93116.

**ROHN TOWERS** — Wholesale direct to users. All products available. Write or call for price list. Also, we are wholesale distributors for Antenna Specialists, Regency, and Hy-Gain. HILL RADIO, P.O. Box 1405, 2503 G.E. Road, Bloomington, IL 61701-0887. (309)663-2141.

**VIC-20 PROGRAMS:** Send SASE to: 17589 Birch, Romulus, MI 48174

**HUSTLER ANTENNAS** — Special offer, request catalogue. ACTION SUPPLY, INC., Dept. W, 1122 E. Hays, Boise ID 83702.

## ABOUT YOUR SUBSCRIPTION

**When does it expire?**
Printed on your address label in the upper right-hand corner is a 4-digit number, such as 0284. This tells you that the last issue of your subscription is February, or the second month of 1984.

**Why does my renewal notice come so early?**
Advance planning is essential in producing a periodical. We have to plan for the time the issue will be in the mail, the time it takes to get ready to mail, and also the time it takes to process new subscriptions and renewal information at the computer house. If you wish uninterrupted service, we need to have your renewal instructions at least six weeks prior to the beginning of the month in which your subscription expires.

**How can I ensure that my renewal will be added to my present subscription?**
By making sure your include your subscriber number, the 6-digit number that precedes your expiration date, in all correspondence about your subscription. It enables us to service you better.



## EMPLOYMENT

**Classified ads for jobs wanted or positions offered will be run free of charge in Worldradio's MART.**

**SUMMER JOB WANTED:** 18-yr.-old freshman at Polytechnic Institute of New York, Brooklyn, in computer science looking for a job anywhere. Licensed ham since 1978 and hold General Class. I am good in computer languages: ALGOL, PASCAL, PL/1, FORTRAN, BASIC. I have good typing skills. Please consider student who needs money to continue school. Contact Alex Polozoff, KA3BQE/2, Rm 10-G, LIU Residence Hall, 190 Willoughby St., Brooklyn, NY 11201.

**FAMILY MAN, 39,** B.A., M.F.A., 1st Phone, seeks employment by college, university, or corporation. Qualified and experienced in design and maintenance of television and multimedia facilities. Some microwave work. Taught courses in television production, film, broadcasting at graduate and undergraduate level. Will relocate in western U.S. or overseas. Phil Cleveland, KC7IW, 12585 Jones Bar Rd., Nevada City, CA 95959.

**COMPUTERS, PERIPHERAL HARDWARE, SOFTWARE & HIGH TECH ITEMS.** Now available via multi-level marketing. High profile manufacturers. Ground-floor opportunity to own your own business. COMPU-COTTAGES, PO BOX 26, Candler, NC 28715.