Worldradio

Year 12, Issue 10 April 1983 • 80¢

International DX Convention

Make plans now to rub shoulders with Big Gun and Little Pistol DXers at the 34th International DX Convention. This joint effort of the Northern California and Southern California DX Clubs will take place at Visalia Holiday Inn Hotel, Visalia, California Friday, Saturday and Sunday, 22-24 April 1983.

Convention General Chairman Bill Zachman, W6TPH promises the 1983 affair will be the greatest ever. The three days will feature DXpedition reports, technical presentations, awards, prizes, contests, dining and hospitality room congeniality. Slides and movies will abound. Open forums will give everyone an opportunity to participate.

Program co-chairmen Jay and Jan O'Brien, W6GO and K6HHD, are at work lining up big DX names to make presentations. They also promise some innovations, among which is a single-track program so you will be able to attend *all* of the sessions of interest to you. There will be an interesting, free program for registered spouses and guests.

As in the past, the prizes will be major, both in quality and quantity. The usual pre-registration amenities will prevail. Pre-registration cut-off date is 15 March 1983.

Registration for the full convention is $40, which covers program sessions, Saturday banquet, Sunday breakfast and prizes. With a full convention ticket, you may purchase additional "Meals Only" tickets at $25 each for your non-amateur guests. "Convention Only" tickets will be available at $20 for those who want to attend the program sessions without meals or prizes. For room reservations, write or call Holiday Inn - Visalia Airport, 9000 Airport Dr., Visalia, CA 93277. Tel. (209) 651-5000.

Many overseas DXers are expected to attend. If you haven't attended the International DX Convention, you owe it to yourself to find out what you've been missing. It's something not to be missed. Mark your calendar and plan to attend — now! For further information, write Northern California DX Club, P.O. Box 608, Menlo Park, CA 94025. — *K6FO*

Rev. Michael Mullen, WA2KUX is now president of IMRA (International Mission Radio Association). Rev. Mullen is shown here at his station. ***(Photo by Gene Luttenberg)***

Rev. Mullen, IMRA president

At its biennial convention held at Loyola University, New Orleans, Louisiana, the International Mission Radio Association (IMRA) elected the Rev. Michael Mullen, C.M., WA2KUX to serve as its president for the next two years. The outgoing president is Warren Mulhall, WA2BPV of Manasquan, New Jersey who works with the Army Communications Systems and designs radio kits for military-type vehicles, both track and wheel.

The IMRA is a non-denominational, non-profit group of 500 licensed radio amateurs in 30 countries. Many of the members are priests, brothers and nuns. The others are doctors, businessmen, engineers, housewives and people from all walks of life. The purpose of the organization is to help missioners throughout the world by providing for them a communications link with their superiors, friends and families at home.

The organization offers two services to missioners. First, it runs a network on the air, daily except Sunday, from 2:00 to 3:00 p.m. Eastern time. Each day, there are about 50 stations checking in and handling about 20 pieces of traffic. In an average year, the IMRA totals 14,000 check-ins with over 6,000 messages flowing through its net.

Secondly, the organization provides missioners with the radio equipment to get on the air. The transmitters and receivers are loaned to them regardless of denomination. The only requirement is *(please turn to page 6)*

Qatar QSOs

Doha, Qatar
Arabian Gulf
6 February 1983

Dear Friends,

Our operation as W6KG/A7 in Doha, Qatar ended 5 February 1983. We were on the air three weeks and made 8,000 QSOs with amateurs in 135 countries, working SSB and CW on 10 through 40 meters.

This country is similar to Oman because it is a recently rich oil country with tremendous new expansion. Although the treatment of women here is more liberal than in the past, only approximately 5 percent of the people seen on the streets of the modern city of Doha or in the restaurants are women. The biggest supermarket in town has one day set aside just for women and their families. It is not felt appropriate to have single men and single women go shopping together!

For the first time ever, we operated from a skyscraper building. Our antennas were located on top of a 14-story hotel with a perfectly clear view in all directions. The great height seemed to help us on both transmission and reception; we averaged consistently about two QSOs per minute while on the air.

Visiting personnel of all kinds, and especially radio amateurs, are not encouraged to visit in the Arabian countries. We are extremely grateful to Mike Smedal, A71AD, who has helped us enter and operate in several Arab countries.

LLOYD COLVIN, W6KG
IRIS COLVIN, W6QL □

DX beacons

The Northern California DX Foundation is seeking volunteers to monitor the worldwide beacon net, now partially operational on 14.100 MHz.

Reports from monitoring stations should preferably be made on a daily basis, at the same time and/or before, during and after sunset.

Beacons now in operation are (sequentially): 4U1UN/B, W6WX/B, KH6O/B with JA2IGY to be active in March 1983. Each beacon station sends four, 9-second dashes, with power levels decreasing in steps from 100 to 0.1 watts.

The current plan is for the beacons to transmit in sequence every 10 minutes. (*please turn to page 25*)

Boys saved with help of amateur

Three boys were found alive after they wandered into a swamp and became lost in Hamilton, Massachusetts Friday, February 4. Suffering from exposure and hypothermia, the boys were discovered the next morning by a search team accompanied by an Amateur Radio operator. They survived the bitter cold huddled in a small pit beneath the rootball of a fallen cedar tree.

It was in the swamp near Turkey Island that the searchers found the boys. Braving waistdeep water, Gordon Muise, WA1LNP and party carried the boys over ¾-mile to solid ground and to waiting ambulances.

— *New England Report, Boston MA* □

DeMaw to retire

Fred Bonavita, W5QJM

Doug DeMaw, W1FB — technical department manager for the ARRL and well-known author and QRP enthusiast — will retire at the end of May.

In letters to friends, Doug says he is taking early retirement after 18 years at the ARRL to return to the family's 40-acre farm in central lower Michigan from which he will run an independent business, Oak Hills Research.

"I will be developing some products and publications aimed directly at the QRP market," he says. "One of the first will be the *W1FB QRP Handbook,* which I hope to release in July or August."

Doug said he will market some QRP products, adding: "I have two very slick ones in development at this time. If this proves successful, I will expand the product line.

"I feel the QRP enthusiast has gone too long without recognition from the manufacturers, so perhaps I can perform a needed service to our low-power colleagues," he continued.

Doug said he will continue working for the ARRL for at least another three years, editing, writing and producing a column.

"After 18 yers of fighting deadlines, political pressures from outside the ARRL, dealing with irritated hams and working long hours, I'm ready at age 56 to start living the good life," he said. "I'm anxious to get back to the hunting, fishing and camping I have missed since moving to the East Coast!"

His decision to take an early retirement and return to his Michigan home was prompted by the death last October of his father, W8PMK. □

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April 1983 Vol. 12, No. 10

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.

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Second-class postage paid at Sacramento, CA.

Antique Telegraph Key Collectors

Laryl Berry, KM7Z

Do you remember the old straight keys, bugs, sounders, sideswipers of years gone by?

Do you have any old "keys" around your shack?

Do you collect old telegraph equipment?

Do you know any of the history or stories behind the old keys?

Do you want to find out more about the old keys?

Do you want to talk with amateurs who may be interested in swapping their duplicate "keys"?

Do you ever wonder what CW ops sound like on SSB?

If the answer to one or more of the above questions is *YES*, then you are invited to tune into the Antique Telegraph Key Collectors Net (ATKCN). Tune into 14.330 MHz, at 0330Z, on the first and third Saturday of each month, and listen for K5RW and/or KM7Z.

The net is informal and welcomes anyone to join in the discussions which will center around the interests of collectors of old telegraph keys of all kinds. The net hopes to bring the information on the old keys and the hams who collect them together to help answer questions and preserve the history — and the old keys, of course — for years to come.

Bring out your old keys, stories and information of interest to the ATKCN and listen for Neal McEwen, K5RW in Texas and/or Laryl Berry, KM7Z in Oregon. Net control will swap back and forth between the two, with everyone invited to participate. □

Noontime Net

Louis Huber, W7UU

As of 1 December 1982, the Noontime Net — a prominent fixture in Amateur Radio activity in the Pacific Northwest — began meeting at noon rather than at 11:30 a.m., on its customary frequency of 3970 kHz.

The change is an outgrowth of the exodus of ham operations from the 80-meter band to 2 meters, it was explained.

"The Noontime Net used to run an hour or longer, until so many amateurs got 2-meter gear and abandoned 80 meters," explained Bob Shull, W7FIM, Noontime Net secretary, who asked the net's board of directors to make the change. "Running time now is a half hour or less," he said, "and 'noontime' came after the net. For some time we've been criticized for misnaming the net and decided we should either change its name or the time of meeting."

The Noontime Net was originated by LaVerne Van Dyke, K7CTP with the help of Pete Piquette, W7LEC (now deceased) and Clarence Fox, W7PWA. □

Amateur Radio net for motorcycle riders

Gary McDuffie, AGØN

The first session of the Motorcycle Riders Net was held on 4 November 1982, 0300Z on 7240 kHz.

Between the foreign broadcast stations and the very long skip that night, it was rough. We fought it out for one hour, and then I decided to see if we could survive the QRM of the 75-meter band at that time of night. We QSYed to 3967 kHz after surveying most of the General Class portion of the band and only lost one station in the process. There were 10 check-ins and everyone expressed high interest in seeing the net continue.

The 75-meter band worked out very well. Not only could I copy my close-in stations, but the ones in the Southwest were as strong as they had been on 40. We all agreed that 75 was the band for us and that we would be back the next week to give it another try. We also agreed to spread the word as much as possible.

A computerized list of members and non-members interested in our activities will soon be available for a small fee.

The net was formed because of the interest expressed when I mentioned it to a couple of amateurs I met via 2 meters at a large convention at Steamboat Springs, Colorado in September. One guy even runs an Atlas HF SSB rig with the old Webster Bandspanner "Broomstick" on the back of his Honda Goldwing. The idea grew and was discussed on the air until finally it was decided to quit talking and do something about it.

We are made up mostly of touring riders, although *anyone* is welcome to join in, and there is no discrimination about what kind of bike you ride. If you know of an amateur who also rides a motorcycle, how about passing the word along to him?

At this time, we have almost 40 stations on the active list, and almost 100 stations listed in the computer. □

Talking frequency readout

A universal talking frequency readout is now available for any amateur HF or VHF transceiver or receiver, etc. that uses a digital-type frequency display, LED, LCD or gas discharge tube. The readout, called "TFR-1", speaks the entire frequency that is displayed, including the decimal points.

Two modes of operation are included in this unit. The Normal mode speaks the megahertz, decimal point, kilohertz, decimal point and the tenths of kilohertz. The Repeat mode starts by giving the entire frequency, just as the Normal mode, however, says "OVER" then continuously repeats the kilohertz, until the QSY frequency is reached.

The TFR-1 is compact in size, measuring 8 × 5 × 3 inches and has a built-in AC power supply. An interconnecting cable supplies display signals to the TFR-1 for conversion into speech. More than one unit may be interfaced into the same talking readout as an option for versatility and cost effectiveness. The TFR-1 comes assembled, tested and with complete installation instructions, as well as a demonstration audio tape. Competitively priced.

The TFR-1 is available from Jerri Arnold, WØJNI, 7923 West Iowa Dr., Lakewood, CO 80226.

— *HANDI-HAM World* □

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COLUMNS

Classroom station

James Wilmerding, WB2SKA

"CQ-CQ-CQ, this is educational station WB2SKA/4 (we also utilize the club call of W4PQP) operating from the Ensworth School, Nashville, Tennessee, K someone please?" We then carefully listened on the 10-meter band hoping for a reply.

"WB2SKA/4, WB2SKA/4, WHISKEY-BRAVO-TWO-SIERRA-KILO-ALPH. This is ZS6OF, ZULU-SIERRA-SIX-OSCAR-FOXTROT, in Johannesburg, South Africa, do you copy?" With that response, all eyes and ears from my 6th grade students were transfixed on the radio! The amateur's name in South Africa was Reno and he was more than happy to speak with the students. We exchanged information about our stations and then he gave a nice description of his part of the world. And so it went; our first DX contact.

Jimmy Wilmerding, WB2SKA — Head of Upper School at the Ensworth School in Nashville, Tennessee — works with 8th grade students at a classroom radio. ***(Photo by John Picklesimer)***

In the past 10 years, this is the second school where I have been fortunate and successful in utilizing this wonderful hobby in the classroom. At the moment, this process take two distinct forms. First, as an introduction to a Amateur Radio, I hold a weekly meeting on an activity or club basis for interested 6th, 7th and 8th grade students. They sign up for approximately a semester's time period. Second, periodically during my daily 6th grade world geography class, we spend time contacting Amateur Radio operators living in the part of the world about which we are studying. During this class time, it is always gratifying how many amateurs around the world are so willing to demonstrate and share their interest and information with the students.

In order to help make the most of a particular contact, we often write questions down in advance so the student knows exactly what to say. We also try to follow up a contact with a QSL card, if the station so desires. As we are in school, I always suggest an SASE. Sometimes we send a certificate or special QSL card from the school. It is most welcome.

To keep up the interest level, we don't overuse the radio. "On-the-air" time is kept to around 15-minute stretches. At this age, a student can become tired of spinning the dial looking for someone to talk to. If the conditions aren't just right, I don't belabor the issue. I simply say we will try again tomorrow.

Some of our past contacts have developed into extensive friendships. One particular amateur — Dick Grand, VE8NI — resides on Cornwallis Island. It is located on Resolute Bay in the High Arctic Islands. He has sent us numerous printed information about that part of the world. I have maintained periodic contacts with Dick over the last four years to the enjoyment of many of my students.

Another successful method in utilizing the radio in the classroom is to pre-record on tape a previous conversation. At certain times, Dick and I have not been able to make a successful contact during the school day. When we are unable to establish contact, I will tape record information that he shares with me. I, in turn, take the tape recording into the classroom and replay it for the students.

The Activity Period takes on a totally different format. Here, I do more "teaching" about Amateur Radio, reinforced with on-the-air time. The ARRL is a valuable source for numerous training materials. A great many of these items are available either free or at a nominal price. In addition to handouts and articles, they have a substantial library of films, slides and tapes which can be rented free of charge.

Our weekly 45 minute class period is organized into roughly three 15 minute segments. I try to spend roughly 15 minutes on each topic. This includes study of Morse code; general explanation, questions and answers regarding radio and communications; specific electronic theory; and actual on-the-air operating time.

If I cover three of these four areas during a class period, I feel comfortable. The key here is not to spend too long on any one topic. At this age, introduction to Morse code should be kept to 10 or 15 minute segments. During this introductory course, my goal is exposure and education about the hobby. It is not necessarily oriented to preparing the students for the Novice examination. If any students become interested by the conclusion of the semester, there is opportunity for them to enroll in a second program which deals solely with preparation for the Novice examination.

There are a number of schools and colleges that operate club radio stations. There are numerous nets on the air made up of these schools and college clubs. Consequently, it is easy for one student in a school to talk to other students in other schools. This is only one of many ways in which to interest the young student in an old and rewarding hobby. KH6NF operates out of McKinley High School in Hawaii at regular times.

Anyone wishing to share information or arrange a schedule during the school day, please contact: Jimmy Wilmerding, WB2SKA, The Ensworth School, Ensworth Ave., Nashville, TN 37205. □

Silent Key

Harry E. Redeker, W6NU, noted educator and U.S. Naval Academy chemistry instructor who included among his students outstanding military leaders and former President Jimmy Carter, died at the age of 93 in his Burlingame, California home Wednesday, 26 January.

Redeker was known to literally thousands of Amateur Radio operators and instructed additional hundreds of students in chemistry and radio. He had been licensed for more than 50 years, and was a member of ARRL and QCWA.

Redeker founded Idaho's first broadcast station, KFAU, in 1922. He and his wife, June had four children by the time they moved to Palo Alto in 1928. While there, Redeker was research chemist for the Federal Telegraph Company and received his doctorate in physical chemistry at Stanford University.

—Info from San Mateo Times, submitted by W.A. Winnegar, N6UW □

You *can* fight city hall — and win!

Carol Greene, KK6V

Across this country, many amateurs have been faced with very restrictive antenna ordinances legislated by their local city governments. Cerritos, California was one such city that had enacted height limitations to radio antennas. After a two-year battle, the amateurs of Cerritos did manage to get some more reasonable heights enacted.

Under the new ordinance, any antenna over 45 feet (but not exceeding 70 feet) had to get the approval of the Planning Commission, City Council and neighbors within 500 feet of the amateurs' property boundaries. After giving it a bit of thought, I decided to go ahead and apply for a Conditional Use Permit (CUP) and see how things would go. This would be the first CUP to go through the grinding wheels of city hall.

The meeting with the Planning Commission went without a hitch, mostly because the Commission managed to put

off this hearing until midnight so that the few complaining neighbors who attended finally got tired and left. The Commission did add a condition to the permit regarding screening, but that condition was reduced from about $900 worth of Italian cypress plants to something quite less and negotiable with the city.

Things didn't go as smoothly after this. A group of people two blocks away began to make up a petition, which they brought to a City Council meeting. This petition had over 100 signatures (so they said — I neve saw it).

Luckily, it had little impact, apparently for two reasons. First, the petition was submitted the night of the hearing, so there was no way for the city to check the authenticity of the signatures; secondly, the city could not check to see how many of these petitioners were within the 500-foot boundary line for the hearing. I felt that going outside the boundary line the city imposed would have denied me due process; apparently, someone on the city staff must have felt this way also.

Things got really bad when these "neighbors" said I was causing them TVI. These people buried themselves, however, when they said the interference was continuous because — thanks to the advice of George Goumas, N6AWF — I produced my logbook showing when I was on the air. In one case, I had been off an entire month, and in most cases there was a six to 10-day lapse in HF operations. This definitely turned the tide in my direction. These people were using untrue TVI complaints instead of hammering on the true reason they didn't want my antennas up — i.e., they just didn't like their looks.

When the vote was finally cast by the council, it stood 3-2 in my favor, with the screening condition still there as part of the permit. Once again, this screening condition is negotiable with the city.

Finally, I went over and visited the street of this group of complainers. Most of them were in blatant violation of many of Cerritos' ordinances. There were also a number of CB antennas, both on their street and on neighboring streets near them which could have been the source of their TVI complaints.

So, I guess the moral of this story is to keep a good log of your operations, keep a cool head when people attack you, and you will find out that you can fight city hall and win!

— *United RAC, LA Harbor, CA* □

A success story

V. Olimpio Varsogea, WB8SEZ

When a new cable television company requested a franchise to operate in the city of Monroe, Michigan, a public meeting was held by the mayor and city council on 28 July 1982.

David Smith, W8YZ — president of the Monroe County Radio Communications Association (the local Amateur Radio club) and V. Olimpio Varsogea, WB8SEZ — the city's member of the County Communications Committee and former MCRCA president and County Emergency Coordinator, spoke about possible harmful interference from such cable TV systems to other communications services such as police, fire, EMS (Emergency Medical Services) and the Amateur Radio Services. They asked that prohibitions against any such interference be included specifically in any cable TV franchise approved by the city of Monroe.

On 13 December 1982, the mayor and council approved a franchise agreement for this cable TV service in Monroe. The section of the city ordinance (law) which governs construction, maintenance and operation standards of the system requires the cable company to comply with all codes and regulations, and the system be maintained in a safe, suitable and substantial condition and in good order and repair.

There is a special section concerning "Operational Interference" which states in part: "... and *no interference* shall result from grantee's (company's) operation to any type of electronic communications equipment now in use. Any such interference *shall be eliminated* within a reasonable time after notice thereof." Also, "Time is of the essence. Grantee shall not be relieved of any obligation to comply promptly with any of the provisions of this agreement."

Thus, after Varsogea and Smith fully expressed concerns about possible harmful interference from and to any such cable television system operation, and after careful deliberation by the mayor and council, the city of Monroe has required the cable TV company to properly maintain the complete integrity of their system, to ensure that there is *NO interference* to any other communications equipment and to comply with all local, state and federal laws and regulations. (NOTE: Although FCC regulations allow minimum levels of emissions, this ordinance also requires that there be absolutely *NO Interference!)*

Since this is an official ordinance (law) of the city of Monroe, as well as a franchise agreement, compliance is not only required and enforceable by the city of Monroe authorities, it can also be fully enforced by legal action in the courts if necessary!

Needless to say, Monroe area amateurs have been assured of the full cooperation of the cable TV companies since the amateurs have also demonstrated their excellent ability to find the source of harmful interference and cable leaks and have pledged to report such problems first to the cable TV company for action — and then to city and FCC authorities if corrective action is not forthcoming, prompt and fully effective.

Mission accomplished! □

The inside story on TEN-TEC's CORSAIR.

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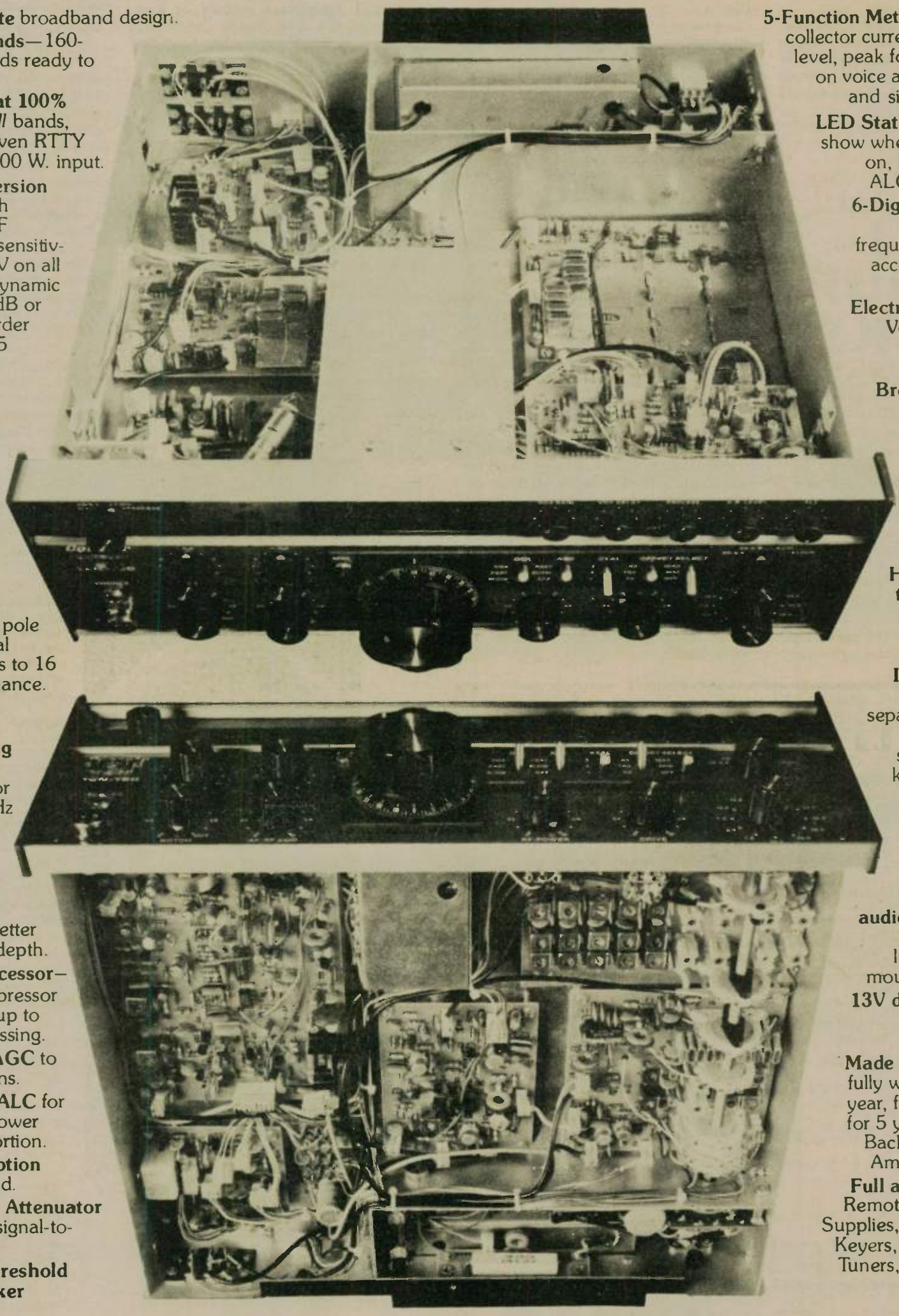

5-Function Meter—monitors collector current, processor level, peak forward power on voice and cw, SWR, and signal strength.

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SSTV technical dinner/meeting

Reservations are now being accepted by Dr. Don Miller, W9NTP of Waldron, Indiana for the annual SSTV Technical Get-together on the evening of Friday, 29 April, in Dayton, Ohio. A dinner is planned for 6:00 p.m. at the Holiday Inn (Englewood), just off I-70, with a technical meeting scheduled for 7:30 p.m.

Guest speakers for the technical meeting include Don Miller, W9NTP — Color SSTV Advancements; Robert Suding, W0LMD — Digital SSTV Techniques and Computers; Dr. George Steber, WB9LVI — High Resolution SSTV and Color; Syd Horne, VE3EGO — SSTV, Canadian Style.

Saturday night events will include the **A5 Magazine** Hospitality Suite #201 at the La Quinta Motor Inn North in Dayton, starting at 9:00 p.m. More details in the April issue of **A5 ATV Magazine.** □

U.S. QSL Service, Inc.

Laryl Berry, KM7Z

U.S. QSL Service is a free domestic QSL bureau. USQS/KM7Z handles QSL cards going to U.S. amateurs from anywhere in the world. Send your outgoing (to U.S. amateurs) through USQS and take the bite out of the cost of QSLing! There is no charge for the service — we run totally on donations, which we use to forward cards. We receive no compensation.

To receive your incoming cards, keep SASEs on file with your call(s), past and present, with USQS. Following is a very brief list of calls for which we have unclaimed cards. If you know any of these amateurs, please have them contact: USQS/KM7Z, P.O. Box 814, Mulino, OR 97042. 73, Laryl.

W1FAB	KA1FNS	W2FFB	KK3F
WB1FAI	K1FUB	WA2FFL	W3FAF
KA1FAP	WB1FVS	WB2FIE	KA3FBP
W1FCN	KA1FWF	W2FJ	N3FD
K1FFK	K1FX	KA2FKP	KA3FEG
W1FG	AA2F	WB2FOU	KA3FJD
KA1FIQ	AI2F	KA2FOX	KA3FJM
KA1FKM	N2FB	WB2FQV	K3FN
K1FMP	KA2FBJ	KA2FSP	KA3FNH
W1FMR	W2FCR	W2FUI	KA3FNJ

IMRA president

(continued from page 1)

that they be authorized by their church and licensed in the country where they work. In the 19 years of its existence, the IMRA has supplied missioners with rigs worth thousands of dollars. Most of this equipment has been gathered as a result of members bequeathing it to the association.

The association has used its network for communications on a number of occasions to handle natural disasters. For example, several years ago, Guatemala was rocked by a severe earthquake. Normal communications lines had broken down and for 40 days, IMRA helped keep emergency supplies and personnel flowing by sending messages over the air.

Each year, IMRA member Ruth de Paz, HR2RP — in San Pedro Sula, Honduras — arranges for dentists in the United States to fly to Honduras and voluntarily treat the poor who normally could not receive dental care. Similar arrangements are made by members of a surgeon's organization called Interplast to fly to underdeveloped countries to provide reconstructive surgery in places where such treatment is unavailable.

The net also offers advice in medical emergencies through a connection with the University of Alabama Medical School and Hospital in Birmingham. In the fall of 1979, when an epidemic of 4,000 cases of measles raged through San Pedro Sula, Honduras, a call came through the net saying there wasn't enough vaccine. Within two weeks, 50,000 doses of measles vaccine were sent to the city through the World Health Organization in an effort coordinated by the medical complex in Birmingham and the IMRA.

"The slogan of the IMRA is 'People Helping People,' and we certainly do that," said Fr. Mullen. "A whole book could be written on the exciting traffic handled through the net — the lives saved, the sick comforted, the lonely cheered, death messages delivered." The priest also stated that the biggest trial of the missioner is loneliness. "Our missonary members frequently tell us what a relief it is to converse with someone back home, or just to hear a voice in their own language when they are faced day after day with poverty, disease, ignorance and the nagging question, 'Does anybody know I'm here?' They are so grateful because the IMRA puts them in touch with friends far away who show their concern."

Fr. Mullen has been a theology professor at St. John's University, New York for 40 years and has been awarded the University's President's Medal for his many activities during those years.

His interest in communications led him through the years into various activities. During the 1950's, he produced a 30-unit sound filmstrip series covering the catechism which was used by three-fourths of all U.S. Catholic parishes and became the most widely used audio-visual religious series at that time. For four years he served as president of the Catholic Audio-Visual Educators Association. When Pope Paul VI visited New York City in 1965, Fr. Mullen acted as narrator for station WNEW-TV. He is a lifetime honorary member of CINE, a group which selects all American Documentary films representing the United States in foreign film festivals.

In 1963, he got interested in Amateur Radio. He was visiting a priest in Panama and discovered how Amateur Radio was helping the missioner in talking to his family in the States. He got his own amateur license a few years later and then joined the IMRA. Fr. Mullen stated, "Amateur Radio is a tremendous hobby. We are not interested in getting on the air and just talking about our transmitters and antennas. We are more interested in helping those unselfish men and women who give their lives for Christ on the missions. They need a lifeline to their families. We provide that." □

KA3FOK	N5FHL	KY7F	KE9F
WB3FRN	KF6F	WA7FAY	KG9F
KA3FSH	KI6F	WB7FBE	WB9FAJ
KA3FWW	NA6F	K7FC	W9FAM
KA3FYR	WB6FAQ	KA7FCN	KC9FC
NE4F	KE5FB	WD7EDQ	WD9FDF
NW4F	KA6FBN	K7FE	KA9FDL
WG4F	W6FCF	KA7FEF	KC9FF
KB4F	WB6FCR	W7FK	N9FGF
K4FCT	WB5FCO	KA7FKT	KA9FKI
W4FGH	WA5FDF	KC8F	KA9FKT
N4FHD	KA5FDX	KF8F	KR0F
K4FJ	W5FED	N8FB	KV0F
KE4FJ	N5FER	WD8FBJ	KC0FD
N4FKF	N5FFN	N8FC	WD0FDK
N4FLW	KA5FGJ	W8FDN	KA0FDL
W4FNS	N6FDD	W8FDX	WD0FGX
WD4FNX	WB6FDR	W8FF	WA0FLS
WB4FQP	K6FF	W8FFN	WB0FMI
N4FS	N6FIO	KA8FFW	W0FSY
AD5F	KD6FJ	KA8FKX	WD0FTW
AI5F	KA6FKH	KA8FMV	KA0FTY
KT5F	N6FKK	KA8FNK	K0FX
NB5F	AE7F	KA8FOJ	K0FZG
N5FA	KB7F	AE9F	
N5FAF	KF7F	AI9F	
W5FC	KU7F	AK9F	

Westlink — news service for hams

This is the third 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.

Stories covered on the weekly newscasts must meet certain criteria. First, they must be of international or national significance. That does not mean a public service event in "East Podunk" will not qualify. It does if it's something that will be important or of significant value to a national audience. An example might be providing emergency communication during a natural disaster, or possibly doing the same for a major charitable event. There are no set guidelines here. It's an arbitrary decision based on what we feel will be of interest to the majority of listeners. We get a lot of this information from the vast number of radio club bulletins we receive each month. Currently, we get some 1,200 of these every 30 days.

By far, the most important aspect of news-gathering is over the telephone. We are in constant contact with the FCC, ARRL and most of the leaders in the world of our hobby/service. Many hours a week are spent on the phone, most of it long-distance, in gathering stories and the voices of those who make the news. In fact, our monthly phone bill for the one line used in the news-gathering aspect of our operation is often more than $500. We will call anywhere in the world to follow up on a story, as those who were around at Christmas 1980 can attest. It was then that Westlink brought you the voice of radio reporter Alex Paen direct from Teheran, Iran reporting that Christmas cards sent by amateurs to Americans being held hostage were being delivered.

This report was aired on Westlink a week before the commercial radio and TV media began to cash in on the story, never bothering to mention that it was a Chicago Amateur Radio operator — Lawrence Cotariu, KA6GVI/9 — who thought up the idea in the first place. This was many weeks before the "concept" was hyped to the public in the national media.

It's ironic that Amateur Radio has never been given the credit it truly deserves in being the inspiration behind this great humanitarian operation. Yes, our phone bills are large, but when you realize that most electronic media is willing to spend 10 times that amount for one story, I don't think we are doing all that bad.

Not that we have to make all the phone calls we do. In fact, there have been times we've received stories from people who have called us. But one of the things you learn early on is to always double-source every story coming from a person you do not personally know and trust, and even double-check the facts from the latter. We also take the precaution of informing such callers that the conversation is being recorded. If they object, we become suspicious. Maybe that's the reason we have never been truly "burned" on any news item. Part of this comes from a sixth sense any newswriter develops over the years — "Those little things that just don't add up."

One incident comes to mind which I will relate. One morning I received a call from "Ham X" with a "scoop" pertaining to a repeater war in the Midwest. According to this guy, a repeater in a neighboring state, but with coverage into that area, had been assigned using an inverted 2-meter split frequency. The coordination policy in his area was non-inverted, and the two had been "locked up" for close to three weeks. He declined to permit me to record the conversation, so I took notes, as he detailed what "crumbs" certain people were by name, address and call sign. I thanked this joker and then proceeded to contact some of the amateurs I knew personally in the area.

Two things didn't quite ring true. First, if the "other state" had gone "inverted," I probably would have heard about it. Decisions like this by repeater councils usually bring out "press releases" to the world. Secondly, I could not find his call in the latest Callbook. Nobody I spoke with knew who the bloke was, nor was there any repeater war. In fact, both areas had adopted non-"inverted" operation some time back. We still don't know who the joker is that called, nor do we care. It did cost about $50 to find out we had a non-story. It was money well spent.

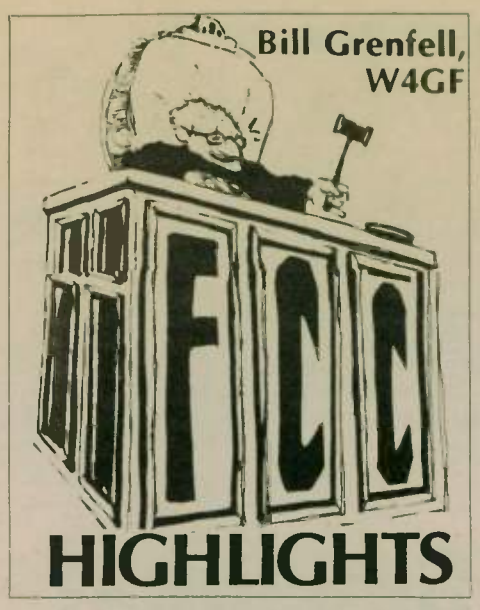
(Continued next month) □

1983 Repeater List

This is to inform you that the new 1983 Rio Hondo Repeater List is now available. This list was put together by Thomas Polley, WA6GEV; Karl Pagel, N6BVU; Bob NO6B; and Alan NN6Z. For a copy of the list, send SASE with two stamps and QSL card to: Rio Hondo College Rpt. List, c/o Thomas R. Polley, 3600 Workman Mill Rd., Whittier, CA 90608.

Only those who send SASEs with two stamps will receive lists.

The new list covers 10, 6, 2, 220 and 450 MHz. □



A no-code amateur license was proposed by FCC on 20 January 1983. The FCC said it believed there are intelligent, disciplined persons who can make a valuable contribution to the Amateur Radio Service without proficiency in Morse telegraphy. The Commission also said there is no intention to deemphasize code as a communications mode in the amateur service. It said it was aware that a codeless license probably is the most controversial matter that can be raised within the amateur community.

The FCC proposed as alternatives either to change the requirements for the existing Technician Class license to eliminate the code, or to create a new Experimenter Class license without a code requirement and perhaps with a written examination more difficult than is required for the Technician license.

For the codeless Technician, FCC proposes all operating privileges at 50 MHz and above. For the Experimenter Class, all amateur privileges at 144 MHz and above are proposed. However, FCC noted that there is nothing to prevent authorization of frequencies at 50 MHz and above to either class and that it intended to be flexible on the frequency issue.

No codeless class privileges below 30 MHz are proposed because requiring code serves an important purpose for operations below 30 MHz, the FCC said. Also, the 1979 international regulations require that amateurs operating below 30 MHz know the code.

The FCC declined ARRL's request that it delay action on the codeless license class for 18 months while a proposed volunteer license examination program (PR Docket No. 83-27) is put into effect. Original comments on the FCC's proposal contained in the Notice of Proposed Rule Making (NPRM) PR Docket No. 83-28 are due on 29 April and reply comments are due on 31 May 1983.

•

The use of volunteers to prepare and supervise examinations for amateur operator licenses was proposed by FCC on 20 January 1983 (PR Docket No. 83-27). Under the FCC's proposal, individuals and organizers would propose questions for all examinations based on the FCC's Study Guide for the Amateur Radio Operator License Examinations. The FCC would issue lists of approved questions which would be drawn on for exams. Written examinations for the Technician, General and Advanced Class license would be given by three-person teams consisting of a chief, holding the Amateur Extra Class license, and two members, holding either Advanced or Extra Class licenses. All three team members for an Extra Class exam would hold that class. Telegraphy exams above the Novice level would be given by an Extra Class licensee.

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

One or more national "umbrella" entities would be established to coordinate the efforts of volunteer examiners. The examination team could certify and forward applications of successful candidates.

Examination team chiefs would maintain files of test papers and pertinent information. Interim permits would be issued to successful candidates, immediately entitling them to operate their stations for up to 90 days with the privileges and limits of the new, higher license class.

The FCC's October 1982 proposal (PR Docket No. 82-727) to establish a program for volunteer conduct of Novice Class license examinations would not be changed by the current action. Original comments on the FCC's proposal must be filed no later than 29 April, and reply comments no later than 31 May 1983.

•

Proposed FCC frequency allocation changes resulting from the 1979 World Administrative Radio Conference (WARC) may affect the use of some amateur bands. The Notice of Proposed Rule Making, General Docket 80-739, was released 30 December 1982. Interested parties may file comments on or before 10 March, and reply comments on or before 11 April 1983.

In the 160-meter band, 1800-1900 kHz is proposed as an exclusive amateur band in the USA, while 1900-2000 kHz is proposed for radiolocation with a footnote that "... amateur stations may continue to operate in the band on a secondary basis to the radiolocation service ... pending a decision as to their disposition through a future rule making proceeding in conjunction with the implementation of the standard broadcasting service."

The future proceeding is likely to propose expansion of the broadcast band up to 1705 kHz and to move the thereby displaced radiolocation operations to the 1900-2000 kHz band. The Loran operation remaining in the band should be terminated soon.

At 220-225 MHz, the current allocation provides both amateur and radiolocation as primary services with amateur operation on a basis of non-interference to radiolocation. The proposed allocation would add the fixed and mobile services to the band at an equal primary status with the amateur service, and reduce radiolocation to a secondary status, but giving it priority of operation until 1990. Pending completion of a joint FCC/NTIA study and then further rule making, fixed and/or mobile services will not be implemented.

At 420-450 MHz, the current Region 2 Radiolocation-primary, Amateur-secondary status would be transferred to the United States' government/non-government allocation and 420-430 MHz would not be available to U.S. amateurs along the Canadian border but "Waivers as appropriate could be considered based on technical consideration."

At 2300-2450 MHz, where the current U.S. allocation of the entire band is to the amateur service on a non-interference basis to government radiolocation, 2310-2390 MHz will not be proposed for any amateur operation because, according to FCC, "... any interference to aeronautical telemetering, which may be supporting safety functions, cannot be tolerated." FCC is "... proposing to maintain secondary amateur allocations in the 2300-2310 MHz and 2390-2450 MHz bands."

•

Use of the "AMTOR" radioprinter system was approved by the FCC at its 27 January 1983 meeting with the change becoming effective on the date of publication in the Federal Register early in February. See last month's 'Highlights' for a description of this "error-free" system.

The change includes reorganization of the teleprinter rules along logical lines, common to the three modes — Baudot, ASCII and AMTOR. For instance, Baudot users operating below 28 MHz have the same 300 baud speed limit as for ASCII instead of being limited to 75 bauds. On the 28 MHz band, 1200 is allowed. In the 50 and 144 MHz bands, a speed up to 19.6 kilobauds may be use, and up to 56 kilobauds may be used in the 220 MHz band and the bands above.

•

FCC's PR Docket 82-799 proposal to eliminate individual licensing of CB radio operation has triggered an interesting comment from the ARRL: "... the League respectfully requests that the Commission continue to require station identification ... in the CB Radio Service to promote an awareness of Commission jurisdiction over the service and the resultant need for rule compliance, and to recognize and honor the international commitment of the United States to maintain adequate control and permit identification of stations capable of causing harmful interference to stations in other countries.

"Further, it is requested that no system of station identification be implemented which would result in the potential for Amateur Radio call signs to be used to identify CB stations on frequencies assigned to the CB Radio Service."

Apparently, one proposal filed in the docket might "require identification by the license plate" number instead of a standard call sign. The League reminded the FCC that many radio amateurs are also CB operators, and many of them have call sign license plates. It would not be appropriate to use amateur call signs in another radio service and would also create unnecessary confusion to those monitoring CB frequencies, particularly in foreign countries.

•

A new private radio communications service has been proposed by FCC (PR Docket 79-140, Gen. Docket 83-26). A

user could have a radio unit in an automobile that could communicate over distances of several miles to a unit at the user's home or to other nearby vehicles. The home unit could be interconnected with the public telephone network to provide for reaching any telephone from the automobile.

Additionally, repeater stations would enable users to communicate over extended distances (30-50 miles) with their home units or other mobile units. The FCC stated that the new service would, on the whole, appeal to a different set of customers, than with the higher-priced cellular radio service and would not have a detrimental effect on it. 133 channel pairs would be allocated at 898-902/937-941 MHz for the new service.

This proposal does not affect the current CB service, which was created in 1958. It is of interest to note that this PRCS allocation straddles the Amateur 902-928 MHz band.

•

An Order to align the Radio Amateur Civil Emergency Service (RACES) frequencies to make use of existing amateur band repeaters and networks was in the FCC rule making pipeline in February. As this was written, its scheduled appearance on the FCC's rule making meeting agenda, during the second week of February, had been postponed. □

The letter Wayne doesn't want read

Dick AAR4PP

The FCC is considering code-free ham licensing, which **Ham Radio Magazine** supports, **QST** opposes, and Wayne Green is trying to exploit into a circulation-builder for **73 Magazine**.

Wayne doesn't simply support a code-free class of license, as do other proponents; for the last year or so he has been pushing an arrangement whereby the *only* motive anybody would have to learn code would be sheer fun. He accuses all who disagree with him of being old fogies, blind to the superiority of RTTY and computer-assisted high-speed techniques. In Wayne's scenario, during floods or other disasters, emergency traffic would be loaded into microcomputer buffers and then dumped through RTTY transmitters at super-zippy baud rated.

About six months ago, an Army MARS "W.A.R." broadcast reported that, "CW has again proved it can improve the odds of getting traffic moved, when poor propagation conditions inhibit the use of mother modes" ("other" = "sideband and RTTY"). Assuming that this report constituted important data relevant to the pro-anti-CW debate, I mailed a printout of the broadcast to Wayne Green at 73. In a covering note for his "letters" column, I urged him to present *both* sides of the debate and pointed out that, no matter whether or not computer/RTTY techniques might have advantages compared to CW, the cost of a simple CW key is only 1 percent that of the cheapest RTTY setup — and that, therefore, while we can expect amateurs to own straight keys for emergency use, we can't ask them all to buy teletype and computer rigs.

So why tell about it in *Florida Skip?* Why bring it up *now?* Because Wayne Green chickened out. Evidently, he only has the courage to give timely exposure to two kinds of letters: 1) those which agree with him or 2) those which disagree so foolishly that they make him sound reasonable by contrast.

Anyway, if you're a CW fan (*any* speed!), you might like to get a schedule from the nearest Army MARS member. You'll find kindred souls who will never cop out of CW. They'd welcome your company!

— *Florida Skip* □

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_____

_____

A great gift for your overseas amateur friend is a *Worldradio* subscription.

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

Seeing double?

If you should receive duplicate issues some month, and one of them has only your name, call and address, and no computer number, you have been selected to pass the extra copy on to a ham who may be interested in seeing the paper. Pass it on.

Special Events...

Pear Blossom Run

Jackson County ARES and the Rogue Valley Amateur Radio Club present the Pear Blossom Special — a special event station — as part of the 7th Annual Pear Blossom Run, to be held in Medford, Oregon on 9 April.

Listen for KC7 Oregon Radio (KC7OR) from 0000Z, 9 April through 0000Z, 10 April. **Modes:** Phone and CW, up 10 kHz from low end of General. **Frequencies:** All bands (80-10) plus 147.30 and 146.52 simplex.

Special commemorative certificates will be given to those who contact the station. For more information, write to Gary Donnelly, KC7OR, Box 613, Medford, OR 97501. □

WWII submarine

Sam DeDonatis, WB2BWL

In commemoration of the birthdate of the *USS Becuna* — a guppy class submarine of World War II vintage, the Olympia Radio Amateur Radio Club will operate from the *Becuna's* radio room on Sunday, 10 April. Operating times are 1300Z-2000Z on the following frequencies: 7235, 14285, 21360, 28600, 144.200 MHz SSB and 2-meter FM.

A beautiful certificate is confirmation of contact with the *USS Becuna*. Stateside contacts send SASE with 50 cents; foreign contacts include 2 IRCs. Mail to ORAC, P.O. Box 928, Philadelphia, PA 19105 USA. □

Patriot's Day

The Central Massachusetts Amateur Radio Association, Inc. (CMARA) will operate its club station, W1BIM, on Sunday, 17 April, 1700 UTC to 2200 UTC and Monday, 18 April, 1500 UTC to 2200 UTC from the Worcester Science Center, approximately 20 kHz up from the General phone band edge on 40 through 10 meters (SSB).

CMARA will offer a certificate to commemorate Patriot's Day, which is celebrated in Massachusetts to honor the Minuteman and all the other patriots who fought for the separation of the American colonies from England during the American Revolution.

Send a QSL card and a business-size SASE to: Alan Freeman, KA1XL, 83 Newton Ave. N., Worcester, MA 01602. □

Happy 300th

Suffolk County Radio Club will operate W2DQ from 1700Z to 0100Z daily from 23 April to 30 April to celebrate the 300th birthday of the town of Islip, Long Island.

Frequencies: *Phone* — 15 kHz up from lower end of 40, 20 and 15-meter General bands. *Novice* — 21.135.

Special QSL for large SASE to Michael Ugarte, WA2ARC, 176 Clayton St., Central Islip, NY 11722. □

Pass it on . . . WORLDRADIO

Novice, Texas

Members of The North Texas High Frequency Association will undertake their second annual mini-expedition to work Novices from Novice, Texas (pop. 201) from 1800Z, 16 April to 1800Z, 17 April using the call N5NT/5 on the 80, 40, and 15-meter Novice bands.

Operations will be from the "City Hall", a one-room affair dubbed "the Novice Hilton" by the members. Space in the room will be shared with rusty water meters, yellowed municipal records and associated other paraphernalia dating back many years ago to when this tiny hamlet was young, ambitious, and aspired to become a growing town. Those times are but dim memories to the elderly inhabitants who comprise the majority. One solitary lightbulb hanging from the peeling ceiling illuminates the Hilton; hence, the radios to be used have been specially retrofitted with sealed beam panel lights.

The remaining buildings in downtown Novice are the grocery store with two gas pumps which are mostly for the benefit of farm tractors and pickup trucks that occasionally pass by, a U.S. post office — every town needs one — and the Masonic Hall.

For needle-in-the-haystack hunters, Novice is located on highly detailed computer-enhanced satellite maps 40 miles south of Abilene, Texas and is best known as a reprovisioning outpost for big game hunters in safaris pursuing the highly prized but very fierce giant Texas longhorn armadillos, one of which recently wreaked havoc on a beer truck in a desolate section of secondary road on the outskirts of Novice. The largest ever bagged commands the center of attention in the Big Game Room of The Explorers Club in New York and was taken in 1938 by Lowell Thomas.

For a nice certificate, send QSL and SASE to Bob Olney, N5NT, Box 2472, Denton, TX 76202. □

Pony Express

The Missouri Valley Amateur Radio Club will hold its 4th Annual Pony Express Day on 23 April 1983 from 1000 CST to 1900 CST and on 24 April 1983 from 0900 CST to 1200 CST. The event commemorates the original running of the Pony Express from St. Joseph, Missouri to Sacramento, California.

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

All that is necessary to receive the certificate is to send two first class postage stamps and a QSL card to the Missouri Valley ARC, 401 N. 12th Street, St. Joseph, MO 64501. □

Alamo Village DXpedition

The Border Amateur Radio Society and the Uvalde Radio Club are having their annual Alamo Village DXpedition the weekend of 16-17 April, 12:00 noon on the 16th to 12:00 noon on the 17th. Bands worked will be 40-10 meters (voice and CW).

Certificates will be sent to those who make contact with the station (W5LFG) and who send 8″×10″ SASEs. Send SASEs to: Border ARS, P.O. Box CQ, Brackettville, TX 78832. □

Little Brown Church in the Vale

Great Plains Amateur Radio Club will operate station KCØCP from 1400Z, 16 April to 2300Z, 17 April from the site of the Little Brown Church in the Vale. **Frequencies:** *Phone* — 3925, 7250, 14290, 21365, 28560.

Certificate for QSL and $1 to D. Muchow, Box 203, Oelwein, IA 50662. (No envelopes please). GPARC will furnish postage and 9″×12″ envelope for an unfolded certificate. □

Dayton ARA van

The Dayton Amateur Radio Association's Communications Van, W8BI/M will be operating a special event station at the Dayton Hamvention again this year.

Operations will commence at 1700 GMT Friday, 29 April and continue till 1700 GMT Sunday, 1 May 1983. The frequencies of operation will be as follows, band conditions permitting: *10 meters* — 28.150(±) CW, 28.575(±) Phone; *20 meters* — 14.030(±) CW, 14.285(±) Phone; *40 meters* — 7.125(±) CW, 7.240(±) Phone.

There is a possibility of 15, 80 and 160 meters also being operated.

We will be issuing a special event certificate (see sample). Send SASE to: DARA Van, W8BI/Mobile; c/o J.M. Kovacs, WD8EOL; P.O. Box 44; Dayton, OH 45401. □

Harry's heydays

On 7 May 1983, the Southside Amateur Radio Club will operate station KA0HXU on 21.355, 14.290 and 7.230 from 1500Z to 2400Z in commemoration of former President Harry Truman's 99th birthday. The station will operate at or near the old Truman farm home in Grandview, Missouri. Commemorative QSLs will be sent via the bureau unless otherwise requested.

For information, write to: Southside Amateur Radio Club, P.O. Box 412, Grandview, MO 64030. □

Russians traveling above Arctic Circle

Ed Kritsky, KA2MXO

This is in reference to the DXpedition "Sovetskaya Rossia" (Soviet Russia). Six men are making their way through the snow far above the Arctic Circle. They are going from Chukotka Peninsula toward the western borders of the USSR. There are three stations: base EK9E/0, with 200 watts of power and good antennas, and two portable ones — EK9C/0 and EK9D/0. The aforementioned two stations are using 10 watt transceivers and simple antennas.

These stations may be found daily on 14.115± 5 kHz either at 0330 or 1100 GMT. They acknowledge CW calls as well. The expedition should last till about May-June of 1983. Mike UK9CAE handles traffic for them and is the QSL manager. □

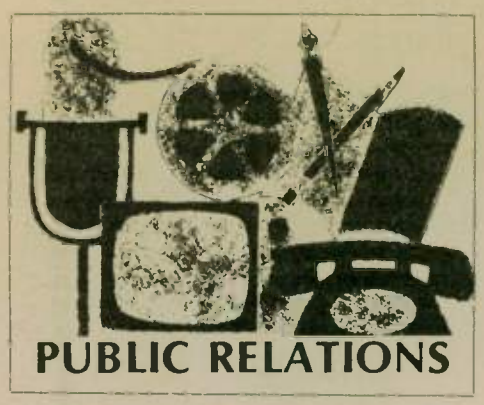
Change of address?
If you are moving, we need to know your new address six to eight weeks before the address becomes effective.

250 years

Richard Smith, WB4APG

A group of Savannah amateurs have started their year-long semiquincentenary award program. The semiquincentenary, which means the 250th anniversary, was started during Georgia Week, 6-12 February. All ham stations making contact with participating Savannah amateurs were given the opportunity to receive a certificate commemorating the 250th year of the founding of Savannah and what was to become the state of Georgia.

During Georgia Week, Greg Dickerson, N4DBS; Tom Langenfeld, KA4RKX; Dale Brown, KA4NGE; Bob Hume, WB4KOZ; Nancy Hickman, WB4NTW; and Richard Smith, WB4APG were able to amass over 700 contacts. The certificates were furnished by the Georgia Semiquincentenary Commission. The program to make the certificates available to amateurs who contact participating Savannah amateurs will continue throughout the year, or until the current supply of certificates is exhausted. □



L.A. County RACES unit commended

Robert Zeiter, W6NAA

In gratitude for their services in the early October Malibu, California brush fires, the Malibu District of Los Angeles County RACES received a commendation from the Sheriff's Department Commander of that devastated area.

On 9 October at 0800 hours, Area Staff Officer Joseph Ridenour, WB6AGC was notified by the Malibu District Communications Officer Bill Johnston, W6RPV that the district RACES organization was being activated by the local sheriff's district commander. By 0900 hours, the District Information Center was actively supporting several Malibu district members in the mountainous district.

The fire, starting in eastern Ventura County, rapidly moved south and was soon burning across Los Angeles County's western panhandle area that includes the rugged Santa Monica Mountains and the famous Malibu beaches. During the fire's two-day march to the Pacific Ocean, 29 Malibu members donated over 290 man-hours of service.

In addition to personal satisfaction of a job well done, the Malibu RACES members received a commendation from Capt. Michael Graham, commander of the Malibu Sheriff's station. □

VU2LT visits States

Eric Zust, KM0R

Mike Parisey, WD0GML learned that Ratna Venkataratnam, VU2LT was planning a year-long visit to the United States through their mutual friend, Asu VU2BBJ. Mike and Asu had met on the air and become friends; they kept a regular schedule and exchanged letters and photographs. When Ratna was sent by the Indian government to conduct research at St. Louis University Asu, quite naturally, asked his friend Mike to help Ratna get situated here.

Mike found out about Ratna's visit in March 1981, less than a month before he was scheduled to arrive. Mike then contacted the ARRL to confirm that the United States and India allowed reciprocal licensing, and he obtained a Form 610A for Ratna's use in obtaining his reciprocal license. Mike then met Ratna at the airport and began to show him the St. Louis (Missouri) area. Their first stop was the McDonnell Douglas Radio Club, which was multi-op'ing the CQ WPX contest.

Ratna soon became interested in radio club activities. He regularly attended meetings of the Mississippi Valley DX and Contest Club (MVDXCC) and was soon "adopted" by club members. Mike and Don Gaikins, WD0CHW provided Ratna with transportation to and from meetings, hamfests, etc. Club members also loaned Ratna equipment to get on the air. Mike lent him an ICOM IC-2A handie-talkie and Don lent him a Kenwood TS-520 HF transceiver. Ratna then began operating 2 meters on both the local repeaters and on simplex frequencies. Using repeaters was a new experience for him since there are none in India at present. Ratna soon became a regular on the St. Louis 34/94 machine signing VU2LT portable W0. Incidentally, this caused some commotion at first among St. Louis amateurs who had not yet worked a VU.

Ratna VU2LT (right), with Eric Zust, KM0R. ***(Photo by Judy Zust, KM0P)***

Ratna got an apartment near St. Louis University where he conducted his research. He has a Ph.D. in sociology from India, where he teaches at Madurai University. Madurai is near the southern tip of India, close to the island country of Sri Lanka. Ratna was trying to find a color TV that operates on the India scan standard and line current, since they cost more than $1,000 in India. Incidentally, India has no color TV transmitters, but Sri Lanka does, and Ratna's Madurai QTH is in easy TV receive range from there.

Ratna spent his weekends doing some touring of local attractions and visiting the QTH of his Amateur Radio friends. He visited the shack of myself and my XYL, Judy KM0P. He was interested in the equipment, cards, magazines, etc. in the shack, but he was equally interested in the two pinball machines in my basement. He had never seen pinball machines in India, and his only experience with them was watching students play at St. Louis University.

About halfway through his stay in the United States, Ratna was informed that his research project was being moved to the University of Illinois in Urbana. This was disappointing to the MVDXCC where Ratna is an honorary member and regularly attended meetings, but the change in schedule allowed his wife to join him for the remainder of his visit. His St. Louis friends then contacted amateurs in Urbana to welcome him there. After moving to Urbana, he continued operating and kept Wednesday evening 40-meter schedules with St. Louis and Sunday morning 20-meter schedules with India.

Ratna returned to India in January 1982. He has since written us that his main problem with his stay here was the record cold temperatures in Urbana that winter. He is accustomed to very warm temperatures in southern India. He is now in the process of homebrewing a 20-meter beam, which he expects to have completed soon. Hopefully, those of us who met him while he was here can maintain our friendships and keep in touch with him via Amateur Radio. □

Oregon club goes to the fair

Bob Kuhn, KC7YN

Labor Day weekend, 1982 turned into quite a logistic challenge for the Salem Amateur Radio Club (SARC) — Ray Porter, K7AA had finally succeeded in getting the hobby of Amateur Radio represented at the annual Oregon State Fair. Past attempts to set up an operating ham station for the event, which has traditionally drawn upwards of 600,000 people during its 11-day run, had always bogged down due to the state laws which govern the event and require exhibitors to pay fees.

Plans for both HF and 2-meter stations were made. Rigs were lined up; antennas were arranged; a video cassette player and monitor were acquired for a day to show the ARRL film, "The World of Amateur Radio;" some publications and QSL card collections were borrowed, and finally, several club members excitedly agreed to be on hand to help Ray operate the station and talk to the people.

Then came Saturday morning . . . the big day. Lorraine Wright, KA7BNB, club secretary, received a call from the state highway division telling her that SARC could set up its Emergency Communications Trailer at a nearby rest stop, along heavily traveled I-5. The club had built the trailer to operate four stations during Field Day and also to use as a command post during disasters and community events such as the annual walk-a-thon.

The trailer provides a place to serve coffee, cookies and other goodies during these "coffee stops," which take place at every rest area along the major highways during long holiday weekends. The club provides the refreshments free to motorists as a public service and to hopefully entice the traveling public to get off the road for a few minutes and renew their alertness.

So, with Ray and part of the club setting up the fair display in anticipation of a large Saturday crowd, Lorraine and her crew were set up south of the city, having just finished the first 12-hour stint of serving coffee.

The state fair attracted some 50,000 people during the day, with many stopping by to see the hobby section and SARC display. "We had a lot of interest in the videotape and our scrapbook," said Bonnie Wade, WA7OEX, who talked to a lot of people about the hobby during the 11-hour display. Meanwhile, Fred Molesworth, AF7S spent some time on both sideband and CW in handing out contacts.

This year, the club is looking at the possibility of being on the air during the fair's entire run, or at least several days of

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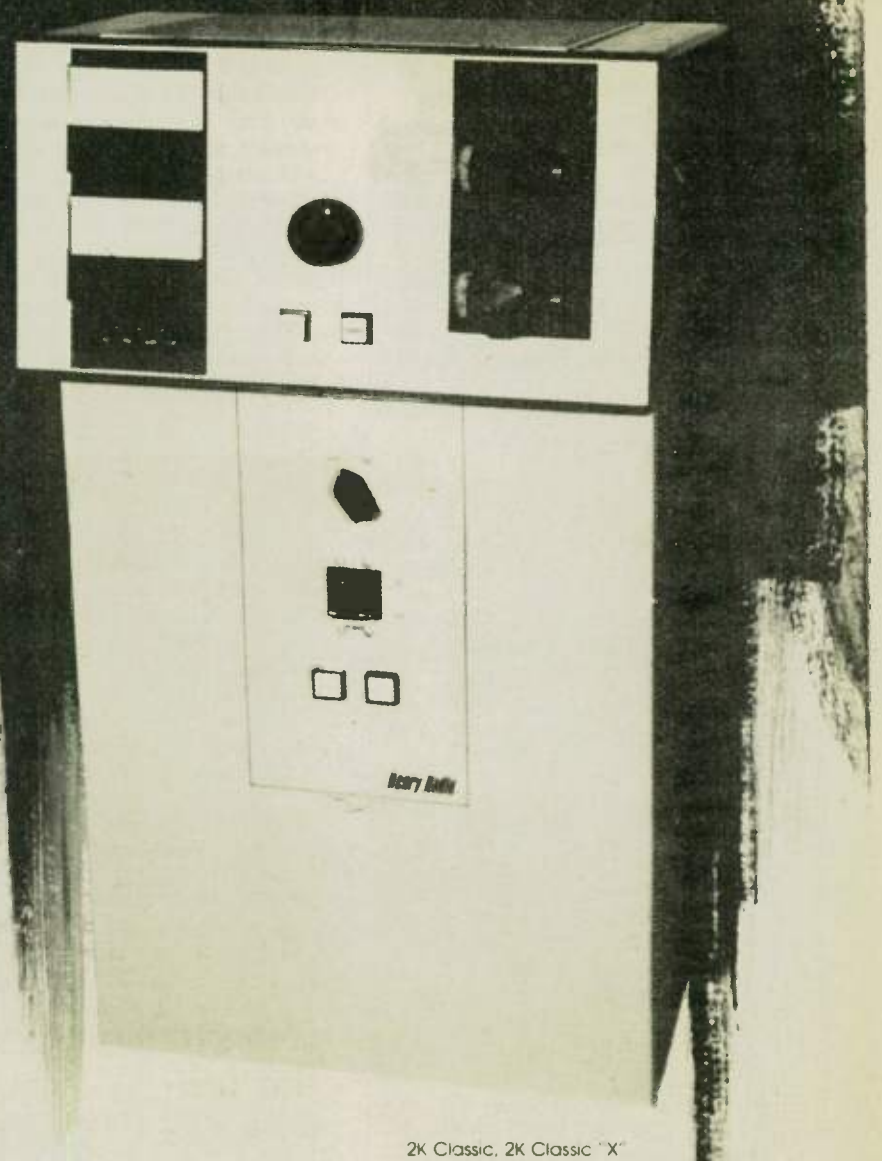

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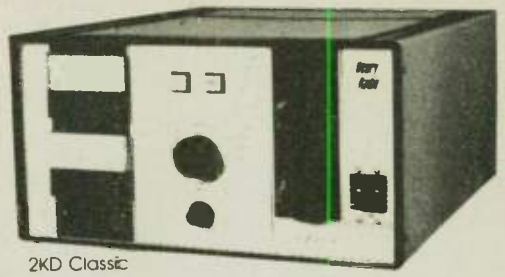

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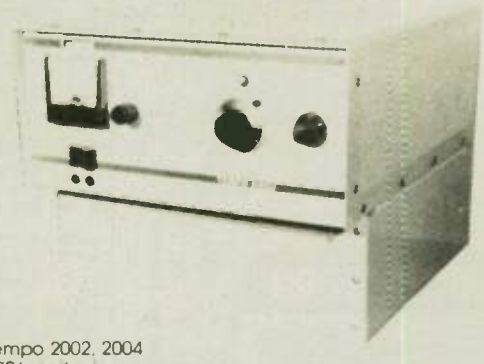

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WA4OSU gets the credit for this program

Students attending Towns County Comprehensive School in Hiawassee, Georgia have something that students at most schools do not have — the opportunity to get high school credit by obtaining amateur licenses.

This special program — Amateur Radio Electronics — was initiated by Howard Smith, WA4OSU, who teaches the school's Amateur Radio classes. Several students have already received licenses through the course. Among them are Becky Berrong, KA4WYT (1st grade); Missy Burrell, KB4DPX (1st grade); Michelle Rhinehardt, KA4OFV (4th grade); and 10-year-old Joe Moreland, WI4H.

Enthusiasm about Amateur Radio often spreads to the parents of these students, as was the case with Joe WI4H. Joe received his Novice and Technician license (KA4NCM) when he was 8; the following year he received his General and Advanced licenses. Now, at the age of 10, he is an Extra, as are his parents — James WG4B and Edith WJ4F. Of the four Extra Class license holders in Towns County, three live at the Moreland house.

Joe takes his turn as net controller on the 84-24 Winespring Ball repeater (5,480 ft. elev.) at Franklin, North Carolina.

Upon entering high school, all of these students will be able to present their licenses (unexpired) and obtain credit. One-half unit of credit is given when a Novice license is issued. The same is true of General and Advanced, while 1 unit credit is given to those attaining Extra status — a possible total of 2½ credits.

Before approaching the Georgia State Board of Education with the proposal for this special program, Howard compiled various pieces of information to help explain the value of Amateur Radio in young people's lives. Included with the information was a letter to the Superintendent and Board of Education, listing the useful activities amateurs are involved with, mentioning the fact that students who obtain licenses have to do a great deal of study in the field of physics and electronics, through college level.

The proposal listed several other things students would gain experience in by getting an amateur license. These include: dependability; courtesy and patience; conversation and communication; responsibility; record keeping and filing; interaction with the business community; a broader knowledge of geography; circuit and schematic reading; and the knowledge of how to handle emergencies.

This innovative program has affected more than just the residents of Towns County. In November 1981, Cathy Chmielowski, KL7IFU — resource teacher for gifted students, grades 7-12, in the North Pole Junior-Senior High School, Fairbanks, Alaska — wrote to Howard, saying she had seen a copy of his proposal and that she hoped to start something similar at her school.

—Information submitted by Howard Smith, WA4OSU. □

Goring and Field Marshall Milch both accepted that the German electronics industry had fallen far behind that of the enemy. A basic reason was while Britain and America had actively encouraged Amateur Radio enthusiasts, in Germany the amateurs had been systematically persecuted by the Reich authorities; in 1943 Reichsmarshal Goring stated, "We smashed up the Amateur Radio 'ham' clubs and wiped them out, and we made no effort to help these thousands of small inventors. And now we need them." — *The Rise and Fall of the Luftwaffe,* by David John Cawdell Irving *(used by WA4OSU in proposal to the Georgia State Board of Education)*

W3LJF chosen 'MS Person of Year'

Submitted by Henry Schultz Jr., KA3GXP

Since its inception in 1946, the National Multiple Sclerosis Society has presented the "MS Person of the Year Award" annually to a local person who best manifests the courage, determination and perseverance of all MS persons.

In selecting the recipient of the 1982 award, Skip Cannavino, chairman of the board of trustees of the Northwestern Pennsylvania Chapter, noted Josephine Jackson, W3LJF's outstanding courage and her many contributions to the Erie Community — despite her 12-year battle with multiple sclerosis.

World-famous DXer, Don Wallace, W6AM (left) — outgoing president of the Southern California Chapter of QCWA — turns the gavel to Moe Joffe, W6PHE, who now heads what is believed to be the largest chapter in the nation, with a membership of 430 amateurs who have been licensed at least 25 years.

Honored for long years in hamdom by the QCWA were (left to right) Len Cummings, W6RBB (50), Don Dussault, W6FQV (55), and "Z" Zervantian, W6DIS (50).

Alan Kaul, W6RCL answers questions about media news coverage from members of the Southern California Chapter QCWA at a recent luncheon meeting. A "confessed news junkie," Alan is West Coast producer of the NBC Nightly News and is both widely traveled and highly informed on current events.

Certificates attesting their years in Amateur Radio are held by (left to right): Jim Hampton, W8ZT/6 (60); Richard Brown, K6GRS (60); Paul Holly, KE6FO (55); and Clayton Blake, W6AGK (60). Presentations were made at the Southern California Chapter luncheon of QCWA. ***(photos by Bob Jensen W6VGQ)***

Oregon club

(continued from page 13)

it. This would allow some prior testing of antennas and other equipment for best results and also give enough prior notice for a publicized special event station.

This year's special QSL card — which was designed by Bob Kuhn, KC7YN and provided for the event by the neighboring McMinnville Amateur Radio Club — features the 1982 fair logo: an old-time canning jar with "All Oregon Fair" on it. It could be a collector's item as fair manager Dwight Butt says the event will return to promoting the official name "Oregon State Fair" next year. □

"Mrs. Jackson is richly deserving of this honor," Cannavino stated, "because she has successfully managed to cope with the manifold difficulties arising from MS. She has made significant contributions of time and effort to the work of Northwestern Pennsylvania Chapter of the National Multiple Sclerosis Society. Josie epitomizes the bravery of all MS persons in the face of this debilitating disease."

Josie shares the hobby of Amateur Radio with her husband, Cass W3WZ; son, Chuck N7DNB; daughter-in-law, Clance, KA7MOO; and brother-in-law, Walter KB3LH. Both Cass and Josie are members of the Radio Association of Erie and ARRL.

— *Erie, PA Times-News* □

Radio world people

Lonnie LaLonde, WB7VFL

Our world and its people are changing. No one wants to get involved; no one cares about what is happening to others. But what about those who *do* care and do get involved?

Just recently, I was invited to a birthday party at the home of Johnny and Betty Taylor, who are and have been Amateur Radio operators for many years. Betty, W7GFF, and Johnny, W7EAH are both senior citizens. Johnny is 79 years old and blind, and is just as active in radio today as he was when he first started at the age of 15. Betty is also active in radio, but more so in keeping the coffeepot and lemonade jug filled along with her homemade cookies for anyone who might drop by to say hello, or to get help with some radio project they are building.

Their home is like Grand Central Station, with people coming or going any time of day or night, and believe me, the Taylors love it. They always have the time to listen to the problems or worries of others, and although they are on a fixed income they are always ready to share — whether it is a bed for the night, a meal or some piece of radio equipment.

In past years

About 11 years ago, they erected a building in their backyard to be used as a schoolroom and workshop. The schoolroom was to be used by anyone interested in becoming a shortwave operator, or who wished to aim for a higher grade license and needed help to learn more about the theory of electronics.

The teachers for this school were all Amateur Radio operators who donated their time to help others make the grade. Johnny and Betty furnished the building, heating, cooling, testing equipment and refreshments — all for free. They have had about 400 students go through this school including doctors, attorneys and even a quadraplegic, who says he is the happiest person alive, since he can make friends all over the world through his radio. Besides the testing equipment, the shelves were filled with radio supplies from the floor to the ceiling.

I visited their radio shack, which is a room in their home, and what a room! It is filled with QSL cards from all over the world, pictures, plaques, awards, letters of appreciation, two certificates from QCWA (Quarter Century Wireless Association), etc. They were made honorary members of the Pueblo Radio Club, where they were deeply involved with the club paper, *Solid Copy*, for many years.

Johnny started the radio class for the blind at their center years ago, and a mobile radio club — The Rams — in California right after WWII; both are still operating. He is a charter life member of the Western Single Sideband Association; has been a member of RACES (Radio Amateur Communication Emergency Service) for many years; has an award from ARRL (Amateur Radio Relay League) for handling emergencies; and at one time had a station set up at Genoa, Nevada, which had been a stage stop and was originally homesteaded by the son of John Quincy Adams. It is now called the Historical Adams Ranch.

Betty served as vice president for the Camellia Capitol Chirps (Sacramento, California), and is still a member. They are both members of the Amateur Radio Operators World Burial Services.

I have written this article about the Taylors, but I have met many others in radio circles who also follow pretty much the same pattern, giving of themselves, time and money. They, too, are real people, and they do care. □

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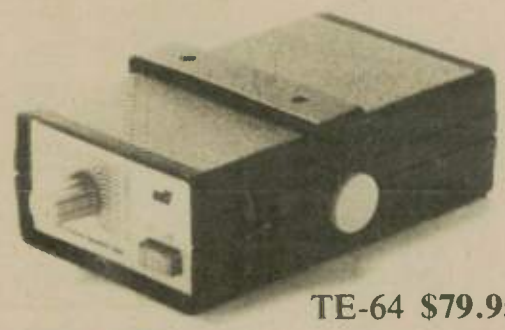

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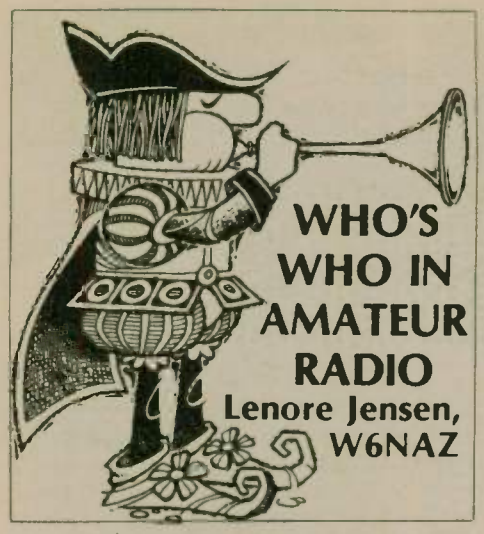

Hank Scharfe, W6SKC built a better mousetrap. It grew out of his Amateur Radio experience, and he has made it into a successful, important worldwide business.

He produces the Dovetron RTTY terminal units which are used in 140 countries by governments, intelligence agencies, military, airports, off-shore oil rigs and the like.

Hank Scharfe, W6SKC holds the Widget in his hand amid projects at his lab. ***(Photo by Bob Jensen, W6VGQ)***

Hank works just the way he likes, everything under his personal control "with my fingerprints on each unit which goes out" from his South Pasadena lab. It's a very pleasant though busy life — he even has his own private railroad car. But he laments, "The trouble is there simply are not enough hours in a day!"

Although his terminal units are no longer aimed at the Amateur Radio community ("Unfortunately, it's not now practical to deal on a one-to-one basis, even though originally I sold them to nearly a thousand hams, at captured cost."), the lab walls display all QSLs. But Hank has come up with a gadget we all may be clamoring for: the Widget. (The dictionary says that's a device for which you can't remember the real name.)

The Widget was born, one rainy night in Mexico, from the frustration of not being able to hear his 2-meter mobile rig in his car. His companion — Dr. Joe Davis, WB6PIX — said, "It's a shame you don't have that coming out of your car radio." Hank got a bright idea. He made a tiny self-powered device, with no battery, which derives its power from the audio output of the transceiver.

He explains, "You merely plug the audio input cable into this gadget (which may be on the dashboard) and the other end of the cable to the transceiver's external speaker outlet. Then you tune your car AM radio to 530 kHz. The Widget's red LED display flickers with modulation."

That's not all. At home, one can retransmit audio from the ham shack to other parts of the home or to improve the audio quality of small playback recorders, radios or even TVs.

It may bring peace to some families where one member wants the TV sound louder than others can stand it. He merely plugs the device into the TV and puts a small transistor radio in his shirt pocket, listening with an earphone. Thus, he can happily run the sound as loudly as he wishes — and even hear it while raiding the refrigerator.

Antique radio collectors could make their prize possessions emanate early radio shows, such as *Amos 'n Andy*, by using the Widget to pick up from an out-of-sight cassette recorder.

"I developed it as a lark and turned it over to my wife, Felipa, to manufacture whenever she feels like it," he says.

Hank Scharfe's lively imagination has kept him moving upwards ever since he discovered Amateur Radio at the age of 12 in Southern California. He read everything available about radio and electronics and started on a lifetime of building and improving gear. "There's always a better way to do practically anything," he claims.

His father, knowing the son's passion for Amateur Radio, requested he give up the hobby during his years at Claremont Men's College, but immediately upon graduation, Hank bounced to the local "candy store" for a store-bought rig. However, a year in Korea commanding a heavy weapons company interrupted, as did another year in graduate school studying foreign trade, international banking and languages. He's fluent in Spanish, his wife's language.

For a while he worked for Collins, but by 1955 was running a communications organization in Mexico while remaining a consultant for Collins, RCA, etc. Amateur Radio, as XE1PG, was very important.

"However," he remembers, "in 1955 there were very few XEs on SSB, so I'd get about 500 QSL requests a month, even though seldom did I receive any. So I looked for another mode."

A friend, a Mexican senator, was seeking fresh ideas in communications. Hank helped him order a number of reconditioned RTTY teleprinters from the States. He took one home, built a small one-tube terminal and got it on the air.

"I'll never forget my first contact. It was with an Australian. Soon I discovered a small, fraternal group of no more than 15 hams around the world. We had a great time. The well-known Merrill Swan, W6AEE was one of them." Hank was hooked on RTTY.

"For the next 10 years I built about 15 different units, trying to make each better than the last and then moved on to solid-state." He decided to ignore the then FM types and turn to AM techniques. "You see, with AM, noise plus signal will always have more energy than just noise. Mine can copy mark only or space only, so I don't care if I lose a channel to a noise pulse or something. The ratio of errors is happily mind-boggling.

Hank finally developed one which pleased him and took it to a Dayton Hamvention to show friends. They crowded into his hotel room to examine the terminal and pronounced it good.

To his surprise upon returning home, a call came from Collins with a big commercial order. "From then on, it's been all uphill," he says gratefully. "The Dovetron (he raises doves) became in great demand wherever reliability in all noise situations is required."

"For the first couple of years I was able to sell to hams, but now my business requires me to sell only in quantity," he explains. However, that quantity is deliberately limited due to his insistence on personal control of the output. The unit is assembled in San Diego and sent to him for final testing and calibration in his lab. The phone often rings from foreign countries "and I'm particular to whom I sell." Several prominent overseas amateurs are using them, including King Hussein, JY1.

With the growing success of the terminal, Hank turned his consulting and engineering business — QPL — over to his long-time, loyal employees and went all out for RTTY.

The Scharfe family (pronounced scarf) enjoys their 85-ton private railroad car which formerly was owned by the president of the Rock Island Railroad. "It's the smoothest running car available," he says. It boasts a large living area (complete with ham station, TV and a TV camera), three bedrooms with showers, a galley, microwave, washer-dryer and power plant.

The car is parked on a spur at the large steel plant owned by his friend Dan Cable, W6IME. Plans are to take a month's rail trip this summer through Mexico. Hank has difficulty finding time to enjoy his ranches in Sinaloa and Sonora.

In South Pasadena, his daily ham activities include keeping in touch with 10 other amateurs on a simplex 2-meter frequency where each can advise the others of calls during absence. "It's also a propagation predictor," he explains. "By simply pressing a touch-tone an 'answer-back' reads out on an LED display."

"Oh, it does other things," he casually mentions, "like starting the car to warm up a few minutes before going out, opening the garage, locking doors, etc. There are all sorts of functions with it from your car via Amateur Radio. If you have a touch-tone in your car and so does your wife, you just call her car and leave a number — as we do all the time on RTTY."

Another of his seven patents is for a universal power supply which operates "off anything from 6 volts to 230, useful in foreign countries especially."

What else? He smiles and says, "My next big project is a secret and soon will be patented. It's a completely new concept."

For all his engineering successes, Hank declines the title of engineer. "Just call me an entrepreneur," he says.

Obviously, W6SKC is a talented one. □

New QSL manager

As of 1 January 1983, Mark Beckwith, WA6OTU is QSL manager for all operations of 8P6J. The old QSL manager — Larry Tyree, N6TR — will QSL all cards received for QSOs made up until 31 December 1982. □

●●●

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

Chris Wilson

Schematic needed for 'Capriceio'

I am writing to you on behalf of my son, David Kavon, who is overseas. He is an Amateur Radio operator, WB2BFD. His shortwave radio table model "Capriceio," which was manufactured by the Emerson Radio Corporation in Secaucus, New Jersey, is broken and he would like to repair it. However, he would like to get a copy of the *schematic diagram*. I have written to the Emerson Corporation and they replied that is not one of their models, and they can't help me out.

I was wondering if any of the Amateur Radio operators who read **Worldradio** might be able to help him out. Write to 147-15 Northern Blvd., Flushing, NY 11354.

JOSEPH KAVON
Flushing, New York □

Keep professionalism in Amateur Radio

I've recently upgraded to Extra and because I like my "beginner's" call, KA6 *N*umber *O*ne *R*adio, I have resisted the temptation to upgrade my call during the past two years.

Operating, while mobile, in the Extra phone portion of 15 meters has been fun, especially since the QRM is a bit less than in the Advanced portion of the band on 20.

Because I still use my 2×3 call sign, now without the interim LB, I've been getting challenged about my use of frequencies between 21250-21270 MHz. A not-so-nice way — "Don't you belong somewhere else?" — doesn't rate a reply but, "How long have you been an Extra?" (or any other class) receives a pleasant two-month reply.

I'm for keeping the professionalism in Amateur Radio, keeping the code requirements and for self-policing, if done in a friendly manner.

The next time you hear a 2×3 in the Extra or Advanced portion of the bands, ask nicely; you might make a friend for life.

KENNETH CAPLIN, KA6NOR
Newport Beach, California □

TT8 is a hoax

I have been informed that someone is using my TU2IN and signing as portable TT8. Sorry to inform the OMs who have been taken by this clown, but he is not for real. TU2IN has not operated since June 1982 and will not go back into service until June 1983, and it will never be TT8.

I am a missionary in Ivory Coast. My stateside call is N0EGZ. Hope to meet many of you on the bands after June.

JERRY PINKERTON, N0EGZ
Nashville, Tennessee □

Info, tutor needed

I need information about any company or persons who sell educational software for Apple IIE computers. I would also like a tutor for theory for Novice and General licenses.

ROBERT GALLERY
9214 Weathervane Place
Gaithersburg, MD 20879 □

Kenya QSL Bureau in use

Here is some news of 5Z4-land (Kenya). After a period of dormancy, the RSK QSL Bureau is now functioning. For the many people who worked 5Y4ITU during the ITU Conference, all the QSL cards have been processed and went out at the end of January.

QSLs sent direct with adequate postage and SAEs will be returned direct; the rest will go "via the buros."

JOHN BALZ, 5Z4CQ
Nairobi, Kenya □

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

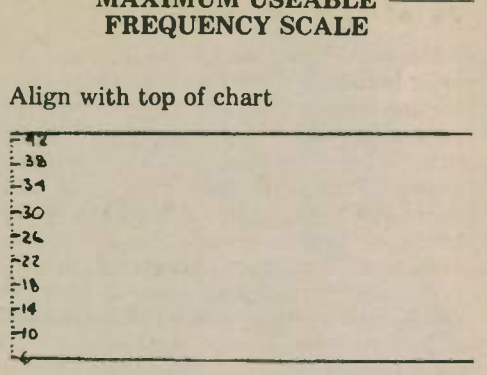
Aid for DXers

We are now experiencing some pretty poor DX conditions. During these times, one has to more or less treat DX/propagation as a science. Conditions are not like they were a couple years ago, when you turned on the rig and DX stations were all over the band.

I have come up with an aid. When used in conjunction with the **QST** propagation charts (published monthly) and the DX Edge, put out by Xantek, one can come pretty close to determining which bands will be on at what times.

Now let's get down to business by first purchasing a package of index cards. Then get out your latest issue of **QST**, remembering the propagation charts are centered on a monthly basis from the 15th day of one month to the 15th day of the following month. Place the left side of the index card on 00 at the left of the **QST** chart. Then with a very sharp pencil or a draftsman's mechanical pencil, Pentel #3 or equivalent, mark off the graduations going up the vertical scale of one of the charts, highlighting those frequencies which are called out.

You can start from the right side of the chart, if you wish; it depends on whether it is more convenient for you to read the chart from left to right or from right to left "backwards." At the topmost and bottommost graduations, draw lines across the index card using a straightedge "ruler" about 3 inches or so in



length. Or you can go all the way to the right of the card and have graduations on both sides, thus enabling you to read the charts from either direction — whichever is the most convenient.

This now completes the initial make-up of the aid.

"Quite simple," you say, and I can't be more in agreement. After you have familiarized yourself with your chart aid, you can make up a list of frequencies for highest possible, maximum usable, or frequency of optimum traffic similar to the W6LS charts published in **Worldradio**. Then, if you have the DX Edge, you can determine whether your frequencies will work best on the long-path or the short-path.

RODGER RUNYAN, WB0GOB
Columbus, Nebraska □

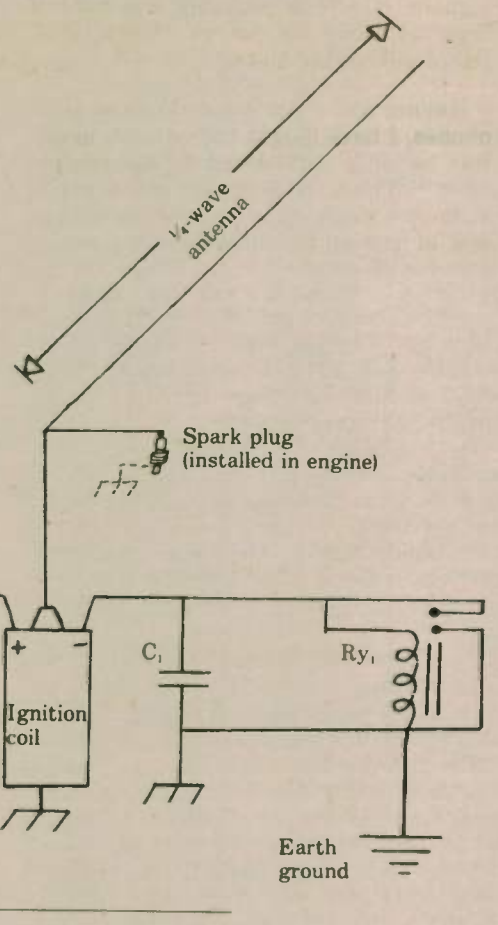
This will work

With regard to "Emergency radio," page 45, January 1983 **Worldradio**, I don't believe anyone is likely to receive a pink slip for using this transmitter, and the standard hunter may be in for a long wait.

A successful spark transmitter must deliver a *continuous* spark in the key down condition. As drawn, the "makeshift" transmitter will not do this. A method of continuously interrupting the primary current and a capacitor for attaining resonance is necessary to sustain oscillation.

The drawing here shows a circuit that will work. The length of the antenna determines the operating frequency.

DANA COWLES, WA8IWZ
Charleston, West Virginia □



Thanks in Hawaiian

The Honolulu (Hawaii) Emergency Amateur Radio Club wishes a "big MAHALO" to all amateurs who assisted during Hurricane Iwa. They also expressed appreciation for their dues-paying members, without whom they would not be able to maintain and upgrade their services. □

Share your knowledge with your fellow amateur and Worldradio reader . . .

A surprise visit

My wife, Vicky, and I live in one of the older homes in West Des Moines, Iowa — a home built in the early 1900's, when the community was known as Valley Junction. While taking a Sunday afternoon break from the seemingly constant remodeling work needed on an older home, we heard a knock. The gentleman at the door introduced himself as Dr. Bill Hammer. He explained that, at 83 years old, he was a retired dentist and now lived in Los Angeles. However, his father had built the house we now owned and it was here that he had spent the first 14 years of his life.

Of course, we were anxious to visit about our home's history and offered a tour. As we walked through the first floor, into the backyard and a view of my triband beam, Bill exclaimed, "You're a ham too! I'm WB6NAF! Isn't that a coincidence." Bill's surprise and pleasure was even greater when he visited his childhood bedroom and found it used today as my ham shack.

Vicky and I were fascinated to hear Bill's stories about the home and earlier

Dr. Bill Hammer, WB6NAF; George Oster, K0EDA; and John Albert, W0NTK — Bill's host during his Des Moines visit. The three pose at Bill's childhood home, now George's QTH.

days in Valley Junction. Of course, we also exchanged some ham stories and arranged a 20-meter schedule.

What a surprise visit for us all, and how pleasant that two amateurs, separated by over 50 years, can share such a common experience!

GEORGE OSTER, K0EDA
West Des Moines, Iowa □

Help needed in forming net

We amateurs involved in public service are always willing to assist if we can. The problem usually is not getting the people to assist but identifying the need for help. Since August 1982, I have been involved in a project to assist a large group of deaf students in one of the only Liberal Arts colleges in the country that caters to the special needs of the handicapped.

The college is called Gallaudet College and is located in Kendall Green, a suburb of metropolitan Washington, D.C. Since this college is one of the few colleges that specializes in the special needs of the hearing impaired, they draw students from all points on the map. Along with the diverse student body comes another problem, that of communicating with their loved ones. This brings me to the point of my writing.

The students at Gallaudet utilize the phone lines to interconnect TTY machines. It is difficult for those of us who were given the gift of hearing to afford the expense of long-distance phone calls much less than those who must type, read and then respond to the written word. Since we are a brotherhood of radio amateurs who base the continued existence of our valued hobby on public service, it seems an excellent opportunity to demonstrate the versatility of our service and at the same time assist the public.

I am proposing a RTTY net for the express use of the hearing impaired and I need your assistance. This caliber of project requires personnel in as many geographic areas of the United States as possible and the dedication to make it work. What we have here is a viable alternative to a problem that unfairly affects those people who, by the nature of their handicap, have already suffered enough hardship and are in more of need of the service we, as radio amateurs, are able to provide.

My address is: 26366 Greythorne Trail, Farmington Hills, MI 48018. If you are interested in assisting me in the formation of the RTTY net, please feel free to contact me as I need all the assistance you are willing to give.

JEFFREY MEYER, N8AHA
Farmington Hills, Michigan □

Three H's Club

As far as I know, this club does not exist. It occurred to me recently that there must be many amateurs with impaired hearing, which does not get better as we grow older. I'm getting older — 70 this year — and find myself steadily turning up the audio gain and straining to hear weak signals amongst noisy, sometimes painfully noisy, undesirable ones. I speak almost exclusively to "maritime mobiles" — small boats in distant places with weak signals, which is probably the hardest type of hamming for us "Three H's" (Hard-of-Hearing-Hams).

Having had a painful blast from headphones, I have fought shy of these until I was recently introduced to lightweight open hi-fi ones. Hi-fi friends are surprised at the poor quality of both of our signals and of the audio equipment we use to listen to them.

Perhaps there is room for an exchange of ideas on how to improve things for the "Three H's." We cannot improve on our ears' discriminating ability. We can help them with deaf aids. I've been told on the air to "switch on that deaf-aid" after several "say again"s or "please spell"s. These aids do help a lot, depending on how bad your hearing is. The main avenue for improvement seems to be better speakers, phones and filtering.

Clearly, each type of hearing loss will call for a different remedy or apparatus. My trouble is World War II blast deafness plus tinnitus, a 2.4 kHz whistle never varying a cycle since 1942 — quite remarkable when compared with the best of oscillators which would have drifted a bit in 40 years.

Perhaps someone can design an implant notch filter; he would make a fortune as there is no cure for tinnitus. One world of comfort for fellow-sufferers: I am told it does not get worse, although occasionally when tired, a harmonic comes on at 4.8 kHz.

I hate to think of a net of "Three H's," all asking for a repeat so perhaps there is no room for the Hard-of-Hearing Hams Club except swapping ideas in these columns.

DAVID JOLLY, G3TJY
Dorset, ENGLAND □

Former radioman remembers when . . .

A short article in your February issue ("Same School, same years," page 46) is what decided me to write to you.

I was chief radioman on Hoffman Island. I cut all the tapes, for code practice and the weekly code tests. I also ran the test transmissions from the assembly of MacElroy tape machines. I used an RCA Kleinschmidt perforator. Some of the tapes were made at Gallup Island, Boston, where another radio school operated.

I was a licensed teacher for the New York City Board of Education, and taught radio code to men of the Signal Corps, before going to work for the U.S. Maritime Service. Only two of us at Hoffman Island were ever licensed teachers.

I have met some of my former pupils on CW, who have gone on to bigger jobs. One is a high official in a Midwest city, another has many inventions to his credit as engineer for a well-known electric company in Massachusetts.

Incidentally, my first job was sweeping out Doc Lee DeForest's factory at Highbridge, New York City, in 1915, while on my summer vacation from school. When I was not sweeping the floor, I was cutting wires to length with an old paper cutter.

DeForest was building phone transmitters for China, the first 18 stations ever installed in that country. Mr. Gowen was his chief engineer.

Now getting close to 80, I make it my business to have at least one good QSO every day on CW, preferably at high speed. I still copy 40 or a little better. It is a marvelous way to keep young mentally.

You also mentioned the ZL Special (Aerials, page 42). It is a terrific antenna, and deserves more attention than it gets. Two folded dipoles 135 degrees out of phase, and fed by 50 ohm coax.

MARTIN HELLMAN, K2TAJ
Staten Island, New York □

'77' = friendship

Amateur Radio uses numbers and abbreviations to transmit ideas. The numbers 73, 88 and 99 have meanings. The abbreviations OM, OW, YL and XYL have meanings. In the beginning days of radio or "wireless," everyone was an "OM" or "Old Man."

I started in our wonderful hobby of Amateur Radio at the young age of 10, but I was called an "OM" just the same. What few women were on the air in the "spark days" were called "OWs" or "Old Women."

We can hardly blame the fairer sex for protesting the title "Old Women" or "OW". The females on the air started calling themselves "YLs" for "Young Ladies." After you married the gal, she was an X-YL or ex-Young Lady.

The number "73" was started by wire telegraphers long before radio ("wireless") came into being. "88s" started when hams wanted to send "kisses" to a YL or XYL. I do hope the *men* won't send "88s" to each other.

I understand that missionaries started "99s" to mean "God Bless U."

Since our radio signals *cross all political boundaries* we do have a *Universal Friendship* thing going. A ham is a friend to every other ham, regardless of nationality, color or creed!

My sigs have crossed over the Berlin Wall and I have talked to several Russian amateurs. One Russian SWL (shortwave listener) heard me talking to an Alaskan amateur, and another heard me talking to a Russian amateur.

"Let's promote "Worldwide Friendship" by using and explaining the number "77". (See article in June 1982 **Worldradio**, page 33.)

D.L. (SPARKY) BARR, W9KJU
Lake Geneva, Wisconsin □

Antarctic activity

A few days ago I had a very lengthy QSO, and I think I have information that may be of interest to many amateurs.

The recent year showed a remarkable surge of ham activity in Antarctica, especially among Soviet Antarctic bases. My correspondent was 4K1D (Station Novolazarevskaya, 71° South 12° East). There are two operators — Mike UA1AFM and Slava UA3SBQ (ex-UA1PAM).

Mike told me the station operates mostly on CW, on all bands, excluding 10 meters. His primary interest is DXing on 80 and 40-meter bands, and he has plenty of W/K QSOs in his asset. He told me there are six active Soviet stations in Antarctica.

4K1A, station Molodezhnaya, currently has several operators from Moscow, Khabarovsk and may be heard on 20 meters phone. 4K1HK (op. UA3HK), who operated from Molodezhnaya a couple of months ago, is back in Moscow and began replying to the QSLs which he had already received. K41B, station Mirnyi, currently doesn't have any licensed operators on board, but is nevertheless active. 4K1C, station Vostok, is not operational at this time. 4K1F, station Bellinhausen isn't represented, either.

If you are into satellite communications, you certainly would like to talk to Serge (op. UA0UBF) from 4K1G, station Leningradskaya. He is monitoring RADIO 5, 6, 7, 8 satellites' activities and is willing to make contacts with amateurs in the USA. 4K1H, station Russkaya, is also active where the operator is Anatol UA1CJD. There is a brand new station Druzhnaya (i.e., "Friendly"), 4K1J, which is located close to Argentin's General Belgrano Base, on the shore of Weddell Sea. Central Radio Club of the USSR is represented by Leo Labutin, 4K1CR/EK3CR, who is the major authority on Soviet Radio satellites.

Mike says he will be active till March of 1983, when he goes back home to Leningrad. He may be found on 80 or 40 meters CW from 0900 to 1100 GMT almost daily. Mike already conducted over 8,000 QSOs during his stay (among them 1,000 — in CQ WW Contest). He is using a dipole antenna and KW rig and capable of working split.

As for the QSL information for the year of 1982: 4K1A — via UA3AEL; 4K1B — no QSL manager at present; 4K1D — via JA1AFM (all QSOs for 1982-83); 4K1G — via UA0UCJ (Serge's XYL); 4K1H — via UA1CJD; 4K1J — via UA1JJ (op. Slava); K41CR/EK3CR — via UA3CR.

ED KRITSKY, KA2MXO
Brooklyn, New York □

He's a Novice, after long delay

I finally got my amateur license after 17 years of trying. It's a long story.

I was an Amateur Radio club operator member in high school (Adrian, Michigan), but I didn't have the time to faithfully pursue the interest due to commitments with the U.S. government (Naval Reserve), plus my school work and a part-time job at a local restaurant.

I did graduate from school, only to go immediately on active duty as a Navy radio operator serving with the Seabees assigned to a marine outfit near the DMZ in Viet-Nam. My duties were (classified), but I was active as a radioman.

I did eventually have code speed up to Fleet broadcast — about 20 wpm — but I unfortunately became involved with drug abuse which only hindered my thinking and comprehension ability, and it led into a moral problem, but from within and not really outwardly.

I completed my year of service in Viet-Nam with a lot of mental scars and lost all interest in radio communications, but I did pursue a career in commercial broadcasting, radio and television and eventually got caught up in "Rock 'n Roll Radio." After about 10 years of that, I finally got my life back together, becoming a "born again" Christian. Now my life's goals have been clearly ascertained and I am serving the Lord in two capacities: ministering across the USA via motor home and also by means of Amateur Radio.

It wasn't until 1977 that I regained an interest in Amateur Radio and ended up enrolling in a correspondence course, even building my own transmitter and receiver, but another setback came along when I discovered some kids in my church were starting a ham club and didn't have any equipment, so I felt led to help them and I gave away everything I owned down to my last crystal. So again I was empty-handed and still not licensed.

Finally, about the summer of '82, I developed another strong desire to obtain my ham license and I started out to set up my station one piece at a time. I started with the only thing I originally salvaged — my Navy "straight key." I built a 40 and 15-meter dipole out of some copper residential house wiring a friend gave to me and some coax cable that was also given to me; that is all I had at the time. I discovered by accident (ha ha) that some local amateurs were about to have a Novice Class in a couple of weeks near here.

Well, I was administered my code test in the second class and passed easily. A few weeks later, I passed the written exam with no problem. Then came the wait. Don't even ask if I was patient, but my hat does go off to my two Elmers — Roy Bonvillian Jr., WD5DBV and Jim Britch, WD5DHY for motivating and encouraging me.

However, all is not well yet. I own the key and dipoles, but that's it. I am using borrowed equipment — a Swan 400 transceiver with dual VFO. I got so enthusiastic about getting my license, in the first month I made 375 QSOs, only lacking four states for the WAS and I made some good DX to boot: Sweden, Venezuela, Colombia, Labrador, etc.

My real ambition now is to spread some "good news" to whoever would like to listen and from past experience there are a lot of listeners. I've struck up some rather interesting conversations with amateurs who would like to know about the love of the Lord; in fact, my very first contact — one hour and 14 minutes — was with a ham in Maine and he even stated "I KNEW THERE WAS SOMETHING SPECIAL ABOUT UR SIGNAL..." That's before I told him who I was. It's always a friendly QSO and all I usually do is share my testimony of what God has done in my life, and the next thing you know I'm being asked dozens of questions, but my main attitude about the whole thing is, "Well, if you look at any piece of U.S. currency, you'll see the wording 'In God We Trust,' and that's what it's all about."

Not only have I finally achieved my communications goal, but to top that off, my wife just got her license. She had never been exposed to code, and would you believe me if I told you she learned code in less than four days? She is now KA5PUV.

My 11- and 12-year-old daughters are just about ready to take their Novice tests, so I guess you could say we're just one big "hammy" family. hi hi.

I sure would like to hear from other hams who have the same interest in the Lord. I've been in the ministry now for five years, and Amateur Radio is just another avenue to pursue.

When we had all that serious flooding here in Louisiana, a lot of amateurs would contact me and ask me the condition here. So I really am glad to be a part of Amateur Radio. No matter what kind of legal conversation one may have, it's just great to know it's there and useful.

A letter of encouragement would not go unanswered.

REV. GARY PARKER, KA5PNE
PEACE Ministries
P.O. Box 91741
Lafayette, LA 70509 USA □

10 MHz — something new, something old

Yardley Beers, W0JF

"TKS for QSO on new band" is a familiar ending for a contact made on 10 MHz. It has been a refreshing experience to have the needle set back to zero for old-timer and newcomer alike: zero states and zero countries.

Since usage by amateurs is secondary to that of others, the ARRL has announced a policy that it will not honor contacts made on this band for awards. Nevertheless, human nature being what it is, it is inevitable that many strive to work as many states and countries as they can. I heard one W6 say he had completed WAS during his first 13 days on the band. The greatest number or countries worked I have heard mentioned is about 35. Since one of those reporting such a number is G6CJ, who has been active on the band for a year or so, it seems very unlikely that anyone will complete an informal DXCC in the near future. My own score after one month is four continents, 14 countries and 40 states.

Propagation can be expected to be intermediate between that of 7 MHz and 14 MHz. Remembering glowing reports of the 32-meter band that amateurs in other countries had before 1929, I have been a bit disappointed in the signal strengths. Rarely have I heard anyone receive a 599 report. No doubt, some of the low-signal strengths are due to the improvised antennas used by some to get on the air. A few are using 3.5 and 7 MHz dipoles force-fed with the aid of antenna coupling networks, but not all can be due to this cause. Perhaps at another season, things will be different. On the other hand, signals are remarkably free of QSB, and it is possible to copy a S4 signal solidly for a long time. Usually propagation requires darkness over most of the path of a DX signal, but I have heard a western European and a YV shortly after lunchtime.

To my old friend Luc Becquet, F8VJ, who provided my first contact, however, 10 MHz is an old story, as he had considerable experience on the old 32-meter band, which probably contained 10 MHz within it. For me, the atmosphere seemed a bit like old time — somewhat like I described in "DX in the Early Thirties," printed in the *Mile Hi DX Newsletter* of November 1981 and reprinted in **Worldradio**, July 1982. Since there are no formal awards, when people chase states and countries, they are usually relaxed and take time to chat. The illusion of the '30s, has been enhanced by the fact that I have heard no stations from Japan, the USSR or anywhere else in Asia, although a couple of people have told me they have worked JA's. The new band has also brought out a lot of old-time calls, including the venerable Don Wallace, W6AM, who has been very active on the band.

During the weekend of 27 November I oscillated between the CQ WW DX Contest and the 10 MHz band. The contest was at times hum drum and other times exciting, and I worked a couple of "goodies." In between times, I found the 10 MHz band restful. Among others there I heard some old calls of people who I am sure have worked a lot of DX, and one fellow frankly told me he was taking refuge from the DX contest.

While it is too bad I cannot use for DX-CC the QSL I hope to get from Richard Newstead, VP8ANT, I hope the 10 MHz band will always remain what it is now — free of awards and contests, a place to find peace.

— *Rocky Mountain VHF Society, Boulder, CO* □

American Radio Relay League

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

At a radio club meeting I attended recently, a member spoke to me about the ARRL. He complained that the League is not responsive to the wishes of the membership. When I questioned him about why he felt this way, he went on at some length about how he had written to ARRL Headquarters and to League officials on many occasions, but that his comments and suggestions had not seemed to make any difference.

His complaint was that he had held a General Class license for over 45 years and that "incentive" licensing had taken away "his" privileges and he wanted them back.

The issue of incentive licensing goes back quite a way, but he said he would "never forgive the ARRL for taking away some of *my* frequencies."

The discussion points up one of the problems the League and any national organization made up of dues-paying members faces, that of communications between the members and leaders of the organization.

In the particular case above, the amateur had also been active on the issue of Extra Class licensing in the late 1940's. He had been a member of the ARRL at the time, but when it appeared that amateurs might have to take a 20 wpm code test to work 75 and 20 meters, he had quit the League and joined the National Amateur Radio Council (NARC).

The NARC only lasted a few years, and when the organization was dissolved, he never did rejoin the League.

I asked him how he expected to have any effect on an organization he didn't even belong to, and his reply was, "Why should I be a member if the organization doesn't listen to its members?"

The problem of a lack of communication isn't unique to the League, of course, and some might suspect we radio amateurs being communicators might do better than most. Perhaps we do, but League officials and headquarters staff members will tell you that no matter how hard we try, communication between leaders and members remains difficult.

Part of the problem may be in defining what we mean by communications. The case above illustrates how many people feel about communications. It isn't a matter of whether or not anyone listens; it's a matter of whether or not they do something as a result of listening to us.

Communication is, of course, a two-way street, so the League has the problem of "getting the word" to members as well as doing the best possible job of listening to members.

QST is the major way the League communicates to members. Originally (in the 1920's), this was the only written communication. At the time, there were only about 5,000 members. As the League grew to its present membership, there came to be a need for more communication than could be handled in **QST** alone.

While much of the League's present-day communication is in the form of more specialized information on various aspects of Amateur Radio, there is also a need for more immediate communication than can be handled in the pages of a monthly magazine.

The latest of these "fast-action" publications is *The ARRL Letter*. This publication contains the latest up-to-date information on happenings in Amateur Radio and within the League. It is somewhat a duplication of services, since the information eventually appears in **QST** in more detail than is possible in a newsletter type of publication. But members demand more immediate communications, and there is need of this if a matter that comes up suddenly needs attention and action by members right away.

Of course, the League does broadcast bulletins every day from W1AW, and there is the Official Bulletin Station program, but these have only met with limited success for a number of reasons.

ARRL Directors are aware of the communication problem and many publish regular Director's Newsletters to members of their respective divisions. These newsletters give details on items that might be of specific interest to members of a particular division, as well as the Director's reports and comments on various matters facing the League and Amateur Radio.

Often one can hear League officials (LOs) chide an amateur who attacks the League and is not even a member. It is difficult for many LOs to deal with League members who will not take advantage of the communications available to them from the ARRL.

I have heard one Director say it is the *member's* responsibility to find out about issues before commenting to a Director or other LO. While this may be true, most LOs believe they have a responsibility to communicate to members as well as listen to their viewpoints.

In order to better do the latter, some LOs — particularly Directors — send out regular questionnaires and polls to the members of their jurisdictions. Questions are asked about members' interests and activities, as related to ARRL, and polls are taken on specific issues and questions.

Even with this effort, one often hears amateurs — most often non-League members — who attack the League, especially LO's, for not being interested in finding out the desires of radio amateurs.

Another form of attack against the League comes from amateurs who are only interested in a particular phase of Amateur Radio operation, and who say the League is not interested in their particular area of interest.

Individuals attacking the League say this particular type of operation is the "most important part of Amateur Radio," and if more amateurs are not interested in this type of operation, it is the League's responsibility to "push" the new type of operation.

Some who attack the League say the ARRL is reactive and only becomes involved with something if there is enough interest on the part of members, instead of leading the way.

When no one follows them, such individuals — if they are members — quit the ARRL. It's kind of an "If you won't play my way, I'll take my ball and go home," situation.

This is a human attitude, and since the ARRL deals with human beings, it is sometimes difficult to run the organization. In fact, since the League is a volunteer membership organization, it will always be more inefficient than business or industry.

Some individuals have attacked the League for not making our structure more like a business organization, with a chain of command with everyone having someone to "report" to.

We will discuss this issue in our next column. □

The long arm of 2 meters

Eric Gunderson, WDØFMF
State Patrol, Moose Lake, MN

Recently, Ken Dahlmeier, WØMFR noticed a motorist that was having difficulty staying on his own side of the road and called me on the 147 repeater. By Ken's directing, we were able to intercept the vehicle and the driver was charged with DWI (second offense).

This is but one example of citizen-police cooperation via 2 meters. Other calls have notified us of vehicle accidents, stranded motorists, road and weather inquiries, etc. We're happy to be of service. □

DX WORLD

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

Activities Calendar

26-27 March	CQ World Wide WPX Contest (SSB)
26-27 March	PPC Rio QSO Party (CW)
2-3 April	PZK SPDX Contest (CW)

W-100-N

Applications for **Worldradio's** Worked 100 Nations Award: three received during this period. Certificates go to the following amateurs:

189. KQ8O James O. Cain
190. W9LCQ Jay K. Seyler
191. I0AOF Giuseppe Loreti

It was nice to receive another application from another DX station, as one had not been received in a long time. Not only was I0AOF the first Italian application that had been received, it was the first we received that the contacts had been made via radioteletype. Joe's certificate has been endorsed "All 14 MHz RTTY." Congratulations, OM!

Heard Island (VK0)

The long-awaited Heard Island DX-pedition made the scene on 23 January, with VK0CW firing away on the low end of 20 meters CW. The station was working split frequency, listening way up around 14.080 MHz or so. Though this may be unfair to the DXers who cannot operate this method, it probably was the best way to fly. Propagation was not at its best to begin with.

This was the Heard Island Expedition, the joint Amateur Radio-mountaineering operation. Two amateurs were part of this group. One was Dave Shaw, VK3DHF — an electronics technical officer with the Australian Department of Meteorology. Dave spent 1980 with ANARE, the Australian National Antarctic Research Expedition, at Macquarie Island, and also operated from Willis Island as VK9ZD. Dave was the operator who signed VK0HI from Heard Island.

The group's other amateur was an American — Alan Fisher, K8CW. He's a mechanical engineer by profession, and has been an amateur for almost 29 years. Alan was the one handing out those VK0CW contacts. There was initially a third amateur scheduled as part of the team — Chuck Brady, N4BQW — who had to cancel at the last minute.

Jim Smith, VK9NS and his crew aboard the *Cheynes 2* were reported to have arrived on Heard Island late on 4 February after two delays enroute from Hobart. This group was planning for a 10-day stay with a heavy concentration on 40 meters. Not much has been heard on this effort, but with propagation the way it was, it probably put a damper on things.

Jim Struthers, ZS6OX pauses for his photo at his Germiston QTH. Jim appears to favor working W/K stations from the appearance of those QSL cards on his wall. You can find ZS6OX active in the 10-10 program on 10-meter SSB. ***(Photo courtesy of ZS6OX)***

The VK0CW/VK0HI team was scheduled for a six-week stay, but in mid-February there were rumors that both were about to leave. It is now 17 February as this is being written, and a query placed on the local DX repeater brought nothing. But this already passes the 10 days set by Jim Smith and company, who operated with the calls VK0JS, VK0NL and VK0SJ. Another rumor was that the mountaineering team had climbed Big Ben and returned to the base camp. If that operation went the full six weeks, it would be into March by the time they would have left.

Heard Island is 200 nautical miles south of Kerguelen Island and is approximately 15 miles by 30 miles in size. It is part of the Kerguelen Plateau (or Kerguelen-Gaussberg Ridge, depending on whose atlas you use). To the west of Heard Island are the McDonald Islands, about 25 miles distance. Shag Island is north of Heard Island by about 15 miles. The station operating as VK0CW and VK0HI was set up at the site of the former 1947-1955 ANARE Base Camp at Atlas Cove, the northwest end of the island.

Those fortunate enough to work Heard Island may send their QSL cards via Dan Handelsman, N2DT. This applies to the calls VK0CW and VK0HI, only. If you are in Japan, send your cards to the DX Family Foundation, Box 12 Shinjuku-kita, Ochiai, Tokyo 161, JAPAN. The rest of the world (other than Japan and North America) should send their cards via Neil Penfold, VK6NE, 388 Huntriss Road, Woodlands 6018, West Australia, AUSTRALIA.

If you worked the Heard Island DX Association team (Jim Smith's group), send your cards to Heard Island DX Association, P.O. Box 90, Norfolk Island 2899, SOUTH PACIFIC. Apply separately for each call you worked — VK0JS, VK0NL or VK0SJ. Be sure to include funds for the return postage with your self-addressed envelope. It would also be appreciated if you included a little extra to help with the expense of the trip. This, incidentally, applies to both DXpeditions.

Many DXers appreciated the efforts by these two teams, but you can't always please everyone, no matter how hard you try. Heard on the local repeater one honor-roll type complaining about all the time Alan VK0CW was spending on CW, especially with all that money donated. As the honor-roll type was a phone-man, he thought it a waste to be on CW, To top it off, the DXer remarked that he didn't need it anyway. As this DX Editor is still transceive, split-frequency would not be possible, so I had planned to wait it out until if he ever went transceive. Well, about 3:15 a.m. on the 14th of February my phone rang waking me out of a sound sleep. Did you ever try to find the phone in the dark? Pete Onnigian, W6QEU — a local DXer — was there, apologizing for waking me up to inform me that VK0HI was on 20 meters, SSB, operating transceive. He was calling for "Whiskey Sixes" and there were almost no takers. I got on fast and got him with no competition. It sure was strange to continuously hear this "QRZ Whiskey Sixes" over and over with no takers.

Antarctica

Although Antarctica only counts as a single country, several nations have bases down there. The Soviets, operating with the calls 4K1CR, 4K1KP and 4K1QCG, are active on 15 and 20 meters, both SSB and CW. These are evidently some of the newer stations as long-established bases at Molodezhnaya, Mirnyy, Vostok and Novolazarevskaya are represented by 4K1A, 4K1B, 4K1C and 4K1D, respectively.

Down on the Argentine Islands, VP8SB has been reported active near 14.260 MHz around 2030 UTC. This station has also been reported on 160 meters at 1805 kHz from 0300 UTC working the United Kingdom.

In a recent issue of the *DX News Sheet* there was a note on the Sovereignty in Antarctica and the relationship to the other islands there. The United Kingdom claims, and at present is exercising, sovereignty over the Falkland, South Georgia and South Sandwich Islands, so only VP8 licenses are valid from these islands. The South Shetland, South Orkney and the Antarctic Peninsula are covered by the Antarctic Treaty which states that all territorial claims south of 60° line of latitude are held in abeyance for the duration of the treaty. Any country can issue licenses for territories south of this line. Prior to the treaty, the United Kingdom, Chile and Argentina all made overlapping claims in the Antarctic Peninsula area, none of which were recognized by the USA or the USSR.

The East Germans have a base down there at present, which is near to Soviet base, Novolazarevskaya (4K1D). This station, Y83ANT, is operated by Loy Diessner, Y44YK, who expects to be there for a year. Send QSL cards for this one via Y44ZK, direct, or via the CDR bureau.

The Australians also have some activity down there with Ray VK0RC, Eric VK0RE, and Adrian VK0AS, handing out contacts to the deserving. The three operators will be there through November.

South Orkney Islands (VP8)

LU5ZA, one of the two Argentine teams active in this island group during February, was due to depart at the end of the month. The operators of this team included Luis Cugnini, LU3MDO and Daniel Cosso, LU8EKC. The other team was due during the latter part of that month signing LU1ZA operated by Enrique Reckze, LU2DV and Luis Brancaccio, LU9EBS. QSL cards for LU5ZA go to Reinaldo Szama, LU2A, and cards for LU1ZA go to LU2CN.

Also from the South Orkneys are several VP8 stations. Various reports include VP8AOB on 14.030 MHz from 0100 UTC, VP8AOD on 14.225 MHz from 0200 UTC, VP8APK on 14.201 MHz from 0200 UTC and VP8AQU on 14.015 MHz at 0100 UTC. This selection should give the deserving a chance to catch this one on both modes.

South Shetland Islands (VP8)

The Argentines have sent teams to this island group, too. LU3ZI was active during the month of February. He had been putting an excellent signal into the West Coast on the low end of 20 meters on CW. He was a good operator and had no trouble picking the signals out of the pile-ups. The operators for this one included LU1DZ and LU3EDZ. Another Argentine team scheduled for February was that of LU1ZC, which was to be the same team that operated LU1ZA from the South Orkneys.

At the beginning of the year, CE9AT was reported working into North America on the high end of 20 meters SSB. No other information is available on this one.

Amsterdam Island (FB8Z)

With FB8ZQ active as he has been, most likely Amsterdam Island will be another DXCC country that will go to the bottom of the list. This station was often found in the lower reaches on the 20-meter CW band after 0100 UTC. Most of the time he has been below 14.025 MHz, but there have been reports of him as high as 14.035 MHz. There also have been reports of him on SSB near 14.215 MHz from 1300 UTC.

Also on the island is another station signing FB8ZP who favours SSB. Look for this one near 14.218 MHz, also from 0100 UTC.

Need Amsterdam on 40 meters? As the demand for Amsterdam Island lessens, FB8ZQ has moved to near 7.002 to 7.011 MHz. He has been reported there at 0001, 0300, 0040 and 1300 UTC.

To you new DXers (or old DXers) who lack an Advanced or Extra ticket, isn't this an incentive to upgrade? Those of you who choose to ignore upgrading are missing out on a lot of good stuff.

Kerguelen Island (FB8X)

Here is another one of those French Antarctic Territories that has been recently activated. FB8XAB has been working the pile-ups near 14.203 to 14.210 MHz from 0100 UTC. The station has also been found down in the CW portions of the band near 14.005 MHz, mostly likely to "rest up" from the mob on SSB. The Heard Island team had briefly visited the island enroute and dished out contacts from FB8XAB.

As for continued activity of FB8XAB, this is discouraging as the operator has been reported to leave the island, with no replacement operator.

Crozet Island (FB8W)

Well, maybe if you missed Kerguelen you will get this one. Two stations, FB8WH and FB8WI, have been active. FB8WH is Bernard, whose home call is F6IAN, with Jean F6CIA, the operator of FB8WI. The two stations operate CW near 14.005 to 14.035 MHz from 2300 UTC.

On SSB, most of the reports I have seen is that they tend to stay out of the American phone band. FB8WH has been reported on 14.225 MHz from 1300 UTC.

Taiwan (BV)

It has been reported that the local authorities will be revising the rulings soon and will be granting additional licenses there. At present, there is only one amateur on Taiwan, that being Tim Chen, who operates as BV2A or BV2B. Look for Tim on Sundays from 0001 to 0200 UTC on 21.030, 21.270, 21.350, 28.030 and 28.530 MHz. Tim will be retiring soon and QSL cards should now be sent via P.O. Box 30-547, Taipei, Taiwan, REPUBLIC OF CHINA.

As for operation on 40 or 80 meters that is not authorized as of yet.

China (BY)

There is one report that the station signing BY8AA has cleaned up its signal and may be more difficult to find. The signal still drifts, mostly upward. So if they come back to you, stay where you are and don't move on to their frequency. BY8AA is active most days near 14.050 MHz after 0100 UTC. Just listen to all the DXers calling blind hoping that BY8AA will choose them to work. It's no use waiting for BY8AA to call CQ as they prefer the Russian roulette method of making a contact. It also does no good to call them on the frequency of the last station he worked either. It is a madhouse!

There is a report that another station, BY1QH, will soon be on. BY1PK is reported to have been shut down for a period. Most likely the station has been put back on the air.

Willis Island (VK9Z)

There is a new operator on Willis Island, who has been assigned the call VK9ZJ. The operator, who goes by the name of John, requests that QSL cards be sent via Jill Weaver VK6YL, who has handled the QSL chores for all the other Willis Island operators. At this time we know nothing of his operating habits. Look for John signing VK9ZJ.

North Cook Islands (ZK1)

From now through June, look for ZL3AHF operating with the call of ZK1WL if you need the North Cook Islands. Mostly CW for this one.

Great Straits DXpedition

The Great Straits refers to the Straits of Gibraltar, that narrow entrance to the Mediterranean Sea that lies between Spain and Morocco which separates the continents of Europe and Africa.

Four different DXCC countries are along this waterway and are separated from each other by only 15 to 60 miles. These countries are Morocco (CN8), Ceuta (EA9), Gibraltar (ZB2) and Spain (EA7).

Rashid Johnson, N9BSD is looking for licensed amateurs who might be interested in participating or contributing to this Great Straits DXpedition. The operation is to be set up on all four corners of the Great Straits. At least 15 amateurs are sought, and it is hoped that the DXpedition will have enough support to be able to operate from all four corners simultaneously.

Ray says that licenses for Spain, Ceuta and Gibraltar are easily obtainable by American amateurs. Because of the difficulty in obtaining a Moroccan station license, Ray's station license, CN8ED, will be used from Morocco. The dates for this DXpedition are tentative and depend on the time indicated by interested participants. For more information, contact Ray at P.O. Box 27643, Tucson, AZ 85726.

Spratly Island rumor

The *DX News Sheet* reported a rumor of a visit in March to Spratly Island by DU1JMG during a visit to a Philippine military base there. If this one ever comes off, you will hear more about it.

Prefixes

Portuguese stations have been authorized to use the following prefixes during the World Communications Year: January to March — CQ1 and CQ4; April to June — CR1 and CR4; July to September — CS1 and CS4; October to December — CU1 and CU4.

During the Jeu Canada Games at Chicoutimi, Quebec, a station signing XO2JCG was active. Anyone working this station and needing a QSL card should send your request to P.O. Box 212, Chicoutimi, PQ G7H 5B7, CANADA.

The DX Bulletin reports that San Marino has switched to the T7 prefix as of the first of the year. Therefore, M1C becomes T7C.

Fernando de Noronha (PY0)

The October DXpedition to Fernando de Noronha resulted in 8,000 contacts for PY0ZZ while PY0CW made 3,000 contacts. 80-meter operation was not possible due to local noise.

Local amateurs on the island are PY0FA and PY0AB, who are Novice operators.

Stamp collectors

Two years ago the Vatican issued postage stamps to commemorate 50 years of Vatican Radio. They were issued in four denominations — 100, 150, 200 and

600 lira. Giuseppe Loreti, I0AOF was kind enough to send us one of each, which we have reproduced below. Joe says to look at Marconi on the 100 lira stamp.

Call for papers

The 1983 ARRL National Convention will have a new wrinkle for DXers and contesters. The Texas DX Society is inviting DXers and contesters from all over the world to participate in the First International DX and Contest Symposium. Blue-ribbon panelists from the DX and contest world will debate pertinent issues of interest to Amateur Radio of the 1980's, such as pros and cons of list operation, contest ethics and other topics. Each issue put before the panel will be debated, and then a resolution of the panel will be made. The proceedings of each debate will be submitted for publication after the convention.

The Texas DX Society is calling for papers to be submitted from DXers and contesters on topics of interest to each individual. The society will then choose the papers that best represent each side of the popular issues. These papers will be read and credited to the amateurs who submit them. All contributions that are chosen for presentation will be notified in advance of their selection. Papers should be one typewritten page on any DX or contest topic.

All papers must be submitted no later than 1 June 1983 to Bob Evans, N5DU, Symposium Coordinator, 13719 East Cypress Forest, Houston, TX 77070.

Suitland Island (KJ6DO/KH7)

In the December issue we printed an item about the Suitland Island hoax. Most DXers who did work this KJ6DO/KH7 probably wrote this one off to experience and swore at this bunch through

their teeth. But that wasn't the end of it. Ned Jacoby, NG6W sent as a note saying, "The other day I read your Suitland Island column in the morning. That afternoon a QSL envelope from the bureau arrived and what fell out was what I'm sending you on the Xerox!!

"This hoax has been done with such sophistication — and humour — that it's really hard to get very griped about it. In fact, the card may be a treasure to have — fake or not.

"Our guess is that the job was done by a very good USA ham and DX op who was a merchant marine op. The night he was on that I worked him people were saying that beam directions were checking out."

RTTY

Not much has ever been reported regarding DX via RTTY. But with a recent W-100-N application with all contacts made on RTTY, perhaps there is something to be said about this mode of DXing. Having studied the application, some interesting calls have been included. Such calls included A4XFW, C31MU, CN8BI, FK8CR, GD3YEO, HB0LP, HV3SJ, HZ1TC and 9A1ONU.

What about these calls: OD5AO, ST2SA, SV0AP, VS5TX, XT2AZ and 3B8RS? If those calls aren't interesting enough, try 3V8ONU, 4S7EA, 5T5JD, T5TI, 7X7MD and 8Q7CC.

Worked All OY

The WAOY award is available to all radio amateurs and is issued in three classes, CW or PHONE (SSB or AM). Mixed modes are not acceptable. The points required for non-Europeans are as follows: WAOY I — 25 points; WAOY II — 15 points; WAOY III — 10 points.

All contacts made on 10, 15 and 20 meters count 1 point each, with contacts on 40 and 80 meters counting 2 points each. The point values are doubled up on all bands when working OY6FRA, OY6NRA, W2GHK/OY (1965) and SM5WI/OY (1968). All contacts must have been made since 11 April 1965. Send your certified list of confirmed contacts with a fee of 10 IRCs to Heri Olsen, OY3H, Box 184, 3800 Tórshavn, FAROE ISLANDS.

Martin Haasen, OY7ML, who sent us the above award information, points out an error in our well-wishes to a Norwegian or Swedish amateur (see page 24, January 1983 issue). Martin says SKAAL is not correct, and any Scandinavian would think you were drunk. Skaal is used when they drink beer together, and is like our Cheers. Martin says, "In Scandinavia we say Hej or Hei, after working more than 10 thousand LA-SM-OZ, etc. I have never heard any sign with SKAAL, so I don't know who has told you that big JOKE."

JARL Awards

Ray Hauck, K6QPE recently received his JCC-600 award from JARL (Japan Amateur Radio League) for working and confirming contacts with Japanese Amateur Radio stations in 600 different Japanese cities. The certificate was number 2! This means he was the second station outside Japan to obtain this award. It took Ray two years to get the 100 additional cities after obtaining his JCC-500 award. There are about 655 cities over there, with more being added every year. Ray says the next step up is the WACA (Worked All Cities Award), which has been done by only three stations, VK2XT in 1974, and KH6HHN and HM1ES in 1979. Ray gives the latest figures on the JCC program:

JCC-100	907.	K6AYB
	908.	VK2PFH
	909.	PY1NEZ
	910.	UK3YU
JCC-200	174.	W1AIO
JCC-300	52.	KG6JDX
JCC-400	22.	DJ9NB

A list of the cities with their JCC numbers are available from JARL, Tokyo Central P.O. Box 377, Tokyo, JAPAN.

Also, ask for the Gun List for the JCG program. A Japanese gun (pronounced goon) is similar to our county. I have also been active in the JCC program and the JCG program. I presently hold JCC-300 and JCG-100. I received certificate number 2 for the JCG. Be sure to include 3 IRCs with your request.

LCRA celebration

This year, the Liga Colombiana de Radioaficionados celebrates the 50th anniversary of the founding of their national society. Special call signs will be used by the various divisions of the LCRA, and certificates will be awarded to any Amateur Radio station that contacts these special stations. All calls will have the "LR" suffix. The certificate is offered for working any eight of the 5J or 5K prefixes. The prefixes cannot be mixed. You must submit at least eight 5J calls or eight 5K calls. All bands count, CW or SSB.

By month, the special prefixes will be available:

January	5J3 5J7	5K1 5K5 5K9
February	5J4 5J8	5K2 5K6 5K0
March	5J1 5J5 5J9	5K3 5K7
April	5J2 5J6 5J0	5K4 5K8
May	5J3 5J7	5K1 5K5 5K9
June	5J4 5J8	5K2 5K6 5K0
July	5J1 5J5 5J9	5K3 5K7
August	5J2 5J6 5J0	5K4 5K8
September	5J3 5J7	5K1 5K5 5K9
October	5J4 5J8	5K2 5K6 5K0
November	5J1 5J5 5J9	5K3 5K7
December	5J2 5J6 5J0	5K4 5K8

Notice that if you miss one month, you will have a chance to work the missing prefix at least two other times. To apply for this award, send photocopies of the QSL cards received to: LCRA, P.O. Box 584, Bogota, COLOMBIA. This award is free of charge.

DX nets

Some DX types prefer to work their DX via the net style. Many DXers consider the net just another form of a list — DX by appointment. Well, whatever! The list below was lifted from the newsletter of the Hamfesters Radio Club, which was submitted to the club by Bob Truhlar, W9LNQ, who is a regular contributor to this column.

Net Name	Day	Time	MHz
W7PHO Family Hour	Daily	0000	28.575
Brown Sugar	Daily	0230	14.310
Arabian Knights	Friday	0430	14.250
Pacific DX Net	Tuesday	0600	14.265
VK/ZL 220 Net	Daily	0630	14.220
YL ISSB Open House	Tu-Th	1000	14.332
German DX Net	Daily	1200	28.750
Seanet	Daily	1200	14.320
Russian DX Net	We-Fr	1300	28.700
Russian DX Net	We-Fr	1400	21.250
W7PHO Family Hour	Daily	1400	14.225
Russian DX Net	We-Fr	1500	14.250
WB9TTM Net	Daily	1600	21.330
Africana Net	Daily	1700	21.335
DX to DX Net	Mo-Fr	1700	21.280
Africana Safari	Daily	1830	21.292
I1AGC Net	Tuesday	2100	14.290
W7PHO Family Hour	Daily		21.345

I have left off the Net Control Stations, as in some cases the NCS job varies. In some cases, it is obvious who the control operator is. I have also omitted the coverage of these nets. Take a listen and if the net suits you, check in. If not, then QSY and work DX like the pros.

Antique QSL Department

Back in the 1930's, Mexico was well represented by one Juan Lobo Y Lobo, operator of X2N. Al Miller, VE7KC worked him back on 15 March 1935 on 40-meter phone. Juan was running 30 watts with Class A modulation from his Monterrey QTH. Al was signing VE5KC at that time from his Vancouver QTH. We have another X2N QSL card in our files, but the QSO information has faded. Juan's DX at that time was 50 countries and 27 zones, but we don't know the date. We would like to know what was meant by zones as **CQ Magazine** and the WAZ program weren't created until after the war. The ITU zones followed the creation of the CQ zones.

Clubs

The Western Washington DX Club, now nearly 700 members, has announced their 1983 slate of officers. Jim Hadlock, K7WA was elected president; Bob Morse, KR7G vice president; Ruth Bennett, WA7RVA secretary; and Ellis Hamer, W7BQG treasurer. This club meets the second Tuesday of each month in Seattle.

Congratulations to the new officers of the Sheboygan County DX Association, which include: Gene Schultz, WA9OVU, president; Kurt Diedring, WB9GLB, secretary/treasurer; and activities chairman, Mike Filipiak, KO9Q.

Tom Fitzpatrick, WB4FOT announces the formation of the new Central Kentucky DX Association in the Lexington area. The newly elected officers include Tommy Puckett, KA4ZKI; Scott Wills, WA4YOF, vice president; and administrative officer, Tom Fitzpatrick, WB4FOT. Interested parties may contact Tom at 3701 Niagara Drive, Lexington, KY 40502.

For Connecticut DXers, the Connecticut DX Association has been formed with Ron Richards, WB1EAZ as president; Paul Shafer, KB1BE as vice president; and Tom LeClerc, WB1CBY as secretary/treasurer. Presently, their meetings are held at the ARRL Headquarters, the third Wednesday of each month at 7:30 p.m. Interested parties should contact the group at P.O. Box 181, Columbia, CT 06237.

The newly formed Carolina DX Association reports through *The Long Island DX Bulletin* their officers: Ted Goldthorpe, WA4VCC, president; Larry Sossoman, K4CEB, vice president; and **Bob Dixon, K4MQG**, secretary/treasurer. Also, in the same issue, the Southeastern DX Club lists Harry Saunders, K4GFH as president; Carl Henson, WB4ZNH as vice president; Grover Meinert, KC4BX as secretary; and Dave Hibbert, KC4TJ as treasurer.

In the February issue I made reference to the Twin City DX Association in that I had the opinion they were not interested in new members. Evidently, my information was inaccurate as **Worldradio** received a stormy letter from their president tearing me to pieces. So, add TCDXA back into the list as they are looking for members. If you reside in the Twin Cities area and hold either WAZ or DXCC (or can show proof of 100 confirmed countries), contact the president,

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".

MAY 1983

UTC	AFRI	ASIA	OCEA	EURO	SOAM
0100	20.9	23.6	30.7	15.2	25.0
0200	18.2	24.2	31.0	14.4	24.6
0300	17.1	24.1	31.4	14.2	23.4
0400	19.6	22.8	31.5	14.6	22.1
0500	17.5	21.0	28.6	15.3	20.6
0600	15.6	19.8	26.0	16.2	18.5
0700	13.8	19.3	24.5	15.1	15.1
0800	12.2	19.0	21.1	13.9	12.5
0900	11.3	18.2	18.2	13.0	13.1
1000	11.3	17.0	16.7	12.7	17.4
1100	12.1	15.7	16.0	13.0	16.6
1200	13.5	15.0	15.6	14.1	16.8
1300	15.4	15.4	15.3	16.0	18.7
1400	17.1	17.0	15.6	18.0	21.1
1500	17.9	18.8	15.9	19.2	22.1
1600	18.1	18.2	15.4	19.3	22.0
1700	18.3	18.0	13.9	19.5	22.6
1800	19.1	18.1	12.8	20.2	24.6
1900	19.8	19.3	14.3	20.7	26.9
2000	20.1	21.8	18.7	20.3	28.4
2100	20.4	23.9	24.3	19.3	28.2
2200	21.0	24.2	28.4	18.1	27.0
2300	22.1	23.9	30.2	17.1	25.8
2400	22.8	23.5	30.6	16.1	25.1

Bob Higgins, W0YDB, Route 3, Box 267-H, Annandale, MN 55302.

Buffalo Award

This award is offered to any Amateur Radio station (or SWL) in the world, except for those who reside in the 48 continental states. DX stations — including Canada, Alaska and Hawaii — must work 20 Kansas stations, plus five Kansas DX Association members (25 contacts). All contacts shall be made on or after 1 September 1980. There are no band or mode restrictions. QSL cards are not required. Applicants shall submit normal log information with a fee of $1 (or 4 IRCs) to: Kansas DX Association, P.O. Box 454, Salina, KS 67401 USA.

QSL information

After completing a contact with a DX station, the DXer listens carefully for QSL instructions or scans the various columns and QSL lists for a manager for the DX station he just worked. He finds the call, then goes to his Callbook for the address, and to his disappointment, the manager is not in the book. Too often DX stations pick brand new amateurs to be their QSL managers, and obviously, they are not in the Callbook yet. Worse yet, the amateur may be in the book, but with an incorrect address. Such may be with the manager for FB8XAB, who gives his manager as F6GXB. The correct address for this one is Jacques Calvo, 8 rue Messager, 91240 St. Michael sur Orge, FRANCE. A bit of advice to DX stations looking for managers. Make sure his address is in the Callbook and correct, let's say for the last few years. If the manager isn't, then have a friend who is as the delivery point.

Rick Todd, N8CWX is looking for QSL information on TYA11, 9J2DS, V3MS and WB0MKR/WH3, all worked the end of 1981. The famous W6GO/K6HHD List suggests sending your TYA11 card to ON5NT; V3MS to W0CP; and WB0MKR/KH3 to KB2RV. Nothing was listed for 9J2DS. When sending your QSL card to these managers, be sure to provide an envelope with your address plus funds for postage.

Jim Kimball, K9JXW worked FP0DD in the 160-meter contest last year and needs an address for that one. That was Slim! Sorry, Jim. Slim visits St. Pierre quite often and has bushwacked many an unsuspecting DXer, including this DX Editor a few times. Jim says he was licensed as ET3USD from 1 June through 31 December 1971. If anyone worked Jim and did not receive a QSL card, please contact Jim at 602 North 72nd Ave., Wausau, WI 54401.

Bob Truhlar, W9LNQ is still looking for help on a QSL for a contact with 4W1AA in 1963. The operator was VS9AD.

Dick Randall, K6ARE is looking for help on ZP5XJA, who he worked in October 1981. My copy of the W6GO/K6HHD list does not have a listing for this station.

Ron Wright, ZL1AMO reports through Norm Brooks, K6FO that his recent application to visit Kermadec Islands has again been declined. Ron still has the logs and QSL cards for the following: VR6HI (Mar/Apr 1979), ZK1MB (Aug 1979), ZK2EA and A35EA (Aug/Sep 1980), 5W1CW (Sep 1980), ZL1AMO/C (Nov/Dec 1980), H44RW (Apr/May 1981), YJ8RW (Nov/Dec 1981), ZK1CQ (Aug 1979 and Apr 1982), and 3D2RW (Sep 1982). Ron also offers IRCs at 40 cents each. If you worked VK4ANS/LH (Jul 1981), send that one to Ron also.

QSL routes

A22CT	—G3HCT	A35MJ	—KA7GLS
A22DC	—G4KJF	A35ZZ	—K0CS
		AH2AI	—WA3HUP
C6ABA	—G3AMR	V2AAW	—WA4ICB
C31SZ	—G4HYQ	VE3DFD/J7	—VE3DUS
CE9AT	—WB6WOD	VE3LGC/8P6	—VE3LGI
CN8CX	—K4CEB	VE4OY/8Z4	—VE5DX
CN8EA	—N0AFW	VK9XW	—VK6NE
CO2HQ	—WB6QPG	VK9YE	—VK6NE
CO2PY	—KB7SB	VK9ZJ	—VK6YL
CR9BK	—JA1HGY	VK0AB	—VK2BRN
D68AM	—WB2OHD	VK0AS	—VK3DJV
EA8QL	—I8RC	VK0RC	—VK3DJV
EL2AD	—WA3HUP	VK0RE	—VK3DJV
EL5G	—K3RB	VP2KJ	—WB2TSL
F6DZD/FH8	—F6DZD	VP2MDB	—W2WSE
FB8ZP	—F6KNO	VP2MM	—AB1U
FB8ZQ	—F6AJN *(See Note 1)*	VP2MO	—KA4BOT
		VP2MSS	—K3RMX
FC0VQ	—DJ4OP	VP5XX	—WB9TIY
FK8CE	—F6EWK	VP8SB	—G4DMA
FK0AE	—F6EWK	W6KG/A4	—YASME
FM7BX	—KA8DDZ	W6KG/A7	—YASME
FM0AYU	—F5QE	XL1ASJ	—VE1ASJ
FO0QA	—K0CS	XT2BL	—EA5BLG
GD5CTM	—DF6ST	XZ9A	—JA8IXM
GD5DQQ	—DJ3TU	Y83ANT	—Y44ZK
GD5EPB	—DL2SA	YB0ACL	—WA4RRB
GU3TXF	—G3TXF	ZB2EX	—G4HYQ
GU5CIA	—N6MA	ZF2AO	—VE1AVX
H44R	—H44DX	ZF2GE	—WA4WTG
HH2W	—WA2DFR	ZF2GO	—WB9OTX
HS1AMM	—VE3GCO	ZK1XS	—K0CS
HS3BV	—SM0DJZ	ZL0ACE	—ZS6AUB
HZ1TA	—OE3YLK	ZS3E	—K8EFS
J6LIR	—WB6FCR	ZY1RR	—PY1VOY
J6LKZ	—KE1A	3A2LJ	—3A2ARM
J20BL	—F6BFN	3B8FE	—3B8CF
J20RL	—F6BFN	3C1AB	—EA1QF
J87BI	—KA2GMT	3D2ER	—W5RBO
JT60AB	—JT1AO	4S7OM	—DF5UG
JW4GN	—LA9VX	5H3BH	—SM0EAI *(See Note 3)*
JY3ZB	—DJ9ZB		
JY5HH	—DJ9ZB	5N6DJA	—K6EDV
JY9RC	—W1CKA	5N8BG	—G4GGY
K0CS/KH8	—K0CS	5N0ATW	—ON5NT
KH7AA	—KH6JEB	5N0WNL	—ON5NT
KP2G	—KM5D	5N22HKR	—OE5RI
KX6AA	—W4NTI	5W1EA	—K0CS
LU5ZA	—LU2A	5Z4CM	—W5BCB
M1C	—I2VGZ	6W8AR	—DJ3AS
N4NW/6W	—AK3F	6W8DS	—WA4VDE
N6YK/V2A	—WA4ICB	6W8DY	—VE4SK
OY1R	—W2KF	7P8CG	—KC0FH
OY5CD	—EI8H	7X4AN	—DJ2BW
OY5J	—WA3HUP	8Q7JA	—JA8MWU
PP2ZDD	—W4BAA	9M6MO	—KO2A
PY0TA	—PY1VOY *(See Note 2)*	9M6WW	—W9GW
		9N1AW	—W1GAY
S79LA	—F6DXA	9N1NFO	—W1GAY
SV0CT	—N4AXT	9N1OAT	—W6OAT
T30AC	—WB6FBN	9N1RFT	—JA1NRH
T32AK	—W9RCJ	9N1VLV	—JA1NRH
T32AM	—WD7SIC	9N1WW	—JA8BMK
TA1RA	—K8RA	9N1YOU	—K4YT
TG9XLA	—KA4SAE	9N38	*(See Note 4)*
TT8AC	—N4NX	9U5DSD	—WA4WPO
TT8BC	—K4PHE	9X5SL	—DL8DF
TU2JT	—F6CXV	9Y4RD/SU	—9Y4RD
C31LD	—Xavier, P.O. Box 62, PRINCIPALITY OF ANDORRA		
CE0EVG			
CE0Z	—P.O. Box 3016, Valparaiso, CHILE		
CO8OC	—P.O. Box 118, Holquin, CUBA		
FP8MX	—P.O. Box 51, 97500 St. Pierre & Miquelon		
G4AVW/ST3	—P.O. Box 2632, KHARTOUM		
GJ4ICD	—P.O. Box 100, Island of Jersey, UNITED KINGDOM		
HH2HJ	—P.O. Box 2411, Port au Prince, HAITI		
HZ1FM	—P.O. Box 7188, Jeddah, SAUDI ARABIA		
II0CM/5N8	—P.O. Box 418, Kano, NIGERIA		
J87BS	—3 Chesterfield Hill, London, W1, ENGLAND		
JW6MY	—P.O. Box 224/10, Longyearbyen, NORWAY		
KP4/EX/V2A	—P.O. Box 230, St. Johns, ANTIGUA		
LU3ZI	—GACW, Carlos Diehl 2025, 1853 Longshamps, Buenos Aires, ARGENTINA		
OA4FW/OB1	—P.O. Box 362, Piura, PERU		
OD5YU	—Sudad, P.O. Box 8, Tripoli, LEBANON		
S83I	—P.O. Box 50, Umtata, TRANSKEI REPUBLIC		
SV5OX	—P.O. Box 157, Rhodes, GREECE		
TG9VT	—P.O. Box 115, Guatemala City, GUATEMALA		
TG9WE	—P.O. Box 235-A, Guatemala City, GUATEMALA		
TI5BGA	—P.O. Box 165, Grecia, COSTA RICA		
TR8GM	—P.O. Box 3511, Libreville, GABON		
TR8IG	—P.O. Box 740, Libreville, GABON		
XO2JCG	—P.O. Box 212, Chicoutimi, PQ, G7H 5B7, CANADA		
6C35A	—P.O. Box 35, Damascus, SYRIA		
6C35M	—P.O. Box 35, Damascus, SYRIA		
6C35N	—P.O. Box 35, Damascus, SYRIA		
6C350	—P.O. Box 35, Damascus, SYRIA		
7P8BU	—R. Wresch, Maluti Hospital, Mapoteng, LESOTHO		
9G1HT	—P.O. Box 359, Accra, GHANA		
9K2ADN	—P.O. Box 19593, Haitan, KUWAIT		
9V1WC	—H. Hofmann, 15 Ardmore Park, 0909 Lang Kawi, 1025 SINGAPORE		

Notes:

1. The address for F6AJN is not in the Callbook. Try P.O. Box 88, Nancy, FRANCE.
2. An address for PY1VOY was also given as P.O. Box 18046, Rio de Janeiro 20772, BRAZIL.
3. For contacts made between 23 November and 6 December 1982, route QSL cards for 5H3BH via SM0DJZ.
4. W1GAY will handle all contacts for 9N38 except those made by JA, which go via JA1NRH.

Our thanks to the following for their contributions this month: I0AOF, ZS6OX, OY7ML, ZL1AMO, VK6NE, HK4FZ, VE7KC, K6FO, NG6W, K6QPE, W0YDB, N8CWX, K9JXW, W9LNQ, K6ARE, W9NN, KA8DDZ, N9BSD, WB9OTX, the Northern California DX Foundation, the Kansas DX Association, the Sheboygan County Amateur Radio Club, the Stark DX Association, the Connecticut DX Association, the Central Kentucky DX Association, the Western Washington DX Club, the Hamfesters Radio Club, the Northern California DX Club, and such publications as the *W6GO/K6HHD List*, the *DX News Sheet*, *The DX Bulletin* and *The Long Island DX Bulletin*.

Recently, a letter was received from a reader who made the comment: "If all your DX column can do is lift items from other DX publications, misinterpret them . . . then you are in trouble!" Yes, I do lift items from other DX publications. In fact, if you look through **Worldradio** you will see that many items have been lifted from other publications, with due credit given.

If I don't receive material from DXpeditionary teams, I will have to lift it from other publications. The editors of these publications expect me to do this as they send me courtesy copies for the credit I give them at the end of the column. Both Heard Island DXpedition teams kept me posted on their activities so I didn't have to lift anything on that one. 73 de John N6JM. □

Contesters' quiz

John Yodis, K2VV

1. The loudest station in the pileup calling you:
   a) will be a dupe.
   b) will want the rules explained to him.
   c) will want a phone patch to Miami.
   d) will want an address from the Callbook.

2. The station you spend 10 minutes trying to pull out of the noise on 75 meters:
   a) will be a dupe.
   b) will be a W4 who wants to know your county.
   c) will be a WD6 running 2 watts who wants a QSL for WAS.
   d) will be a mobile looking for WSCARS.

3. A new multiplier calling you in the last minutes of the contest:
   a) will sign his call two different ways and disappear.
   b) will give you his name, address, rig, weather and sister's phone number.
   c) will be followed by two more stations from the same country.
   d) will say he's not in the contest but you're loud in Yaounde.

— *United RAC, LA Harbor, CA* □

Beacons

(continued from page 1)

Except for the South Africa beacon, the stations transmit in order from east to west beginning with the United Nations, New York, on the hour.

Time	Station	Location
00:00	4U1UN/B	United Nations, NY
00:01	W6WX/B	Stanford University, CA
00:02	KH6O/B	Honolulu Community College, HI
00:03	JA2IGY	Tokyo, Japan
00:04	4X4TU/B	Tel Aviv University, Israel
00:05	OH2B	Espoo, Finland
00:06	CT3B	Madeira Island
00:07	ZS6DN/B	Transvaal, South Africa

The sequence then is repeated at 00:10, 00:20, 00:30, etc.

Prospective volunteers should contact Al Lotze, W6RQ at 46 Cragmont Ave., San Francisco, CA 94116. Membership particulars regarding the NCDXF should be addressed to P.O. Box 2368, Stanford, CA 94305. The Northern California DX Foundation is not to be confused with the Northern California DX Club; the club and foundation have no connection.

Take a look at these cards from contacts made by Bob Baird, W9NN of Plover, Wisconsin. Enclosed with the photo was a note: "Thought the enclosed might end the 'counterpart worked' deals. Only took since 1920 to do it. Four others were lost in the shuffle somewhere along the years."

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

IC-720A + IC-R70

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

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

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

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

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

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

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

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

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

Audio Tone Control. For easier listening/less fatigue.

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

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

Large Front Mount Speaker. Full 3 watts of audio.

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

Option for FM Reception. Useful for 10 meter FM.

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

IC-7072
Transceiver Unit

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.

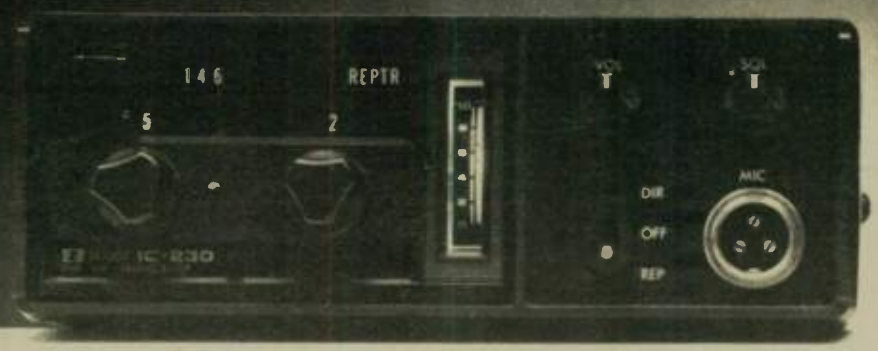
Now your base station can have the most advanced ham/general coverage receiver available and the crisp transmitted audio of the IC-720(A) with RF speech processor. And yet, the 12 volt operated IC-720(A) may be taken mobile or portable for the ultimate in a ham band transceiver...and you still have general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

1975 1983



IC-230

- ☐ 67 Channels
- ☐ 10 Watts
- ☐ Crystal Synthesized

In 1975, ICOM came out with the IC-230 — the first synthesized 67 channel, 2 meter mobile in history. It became one of the most popular mobiles ever.

Now, eight years later ICOM reverses inflation with another potential blockbuster, the IC-25A .....and look at the price!

$489 (In 1975 dollars)

IC-25A

- ☐ 800 Channels
- ☐ 25 Watt Hi/1 Watt Lo
- ☐ PLL Synthesized
- ☐ Green LED Display
- ☐ Touchtone Microphone
- ☐ 5 Memories
- ☐ Priority Channel
- ☐ Programmable Band Scan
- ☐ Full Bandscan
- ☐ Dual VFO's
- ☐ Memory Scan
- ☐ Nor/Rev Switch
- ☐ Resume Scan
- ☐ Digital Readout
- ☐ Smallest 2 Meter Mobile

$359 (Includes Touchtone® Mic with up/down scan)

ICOM
The World System

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

AWARDS

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

To start off this month, let's take a look at some awards from different local radio clubs.

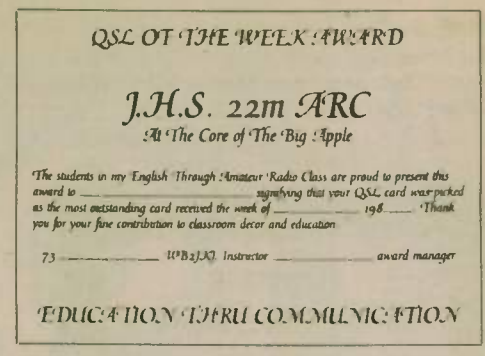
Worked all El Paso WAE

Issued by the El Paso Amateur Radio Club to any licensed amateur who can certify that he/she has confirmed contact with at least 15 stations located in El Paso County.

To apply, send your log extract "GCR" to: El Paso Amateur Radio Club, 1501 Golden Hill Terrace, El Paso, TX 79902. There is no fee for the award, but how about putting a buck in anyway to defray postage? The award measures 8½" × 11" and is on top-quality paper and printed in three colors.

QSL of the Week Award

This is more than just an award. It is an Amateur Radio interest story too, but first let's tell you about the award. The students of Junior High School #22 ARC issue this award to the amateur who submits, in their opinion, the best QSL card each week. All of the 180 students examine each card submitted for each week and issue the award to the winner. You get the award, and they get to add your card to their wall.


QSL OF THE WEEK AWARD

J.H.S. 22m ARC
At The Core of The Big Apple

The students in my English Through Amateur Radio Class are proud to present this award to _____ signifying that your QSL card was picked as the most outstanding card received the week of _____ 198__. Thank you for your fine contribution to classroom decor and education.

73 _____ WB2JKJ Instructor _____ award manager

EDUCATION THRU COMMUNICATION

Joseph Fairclough is an English teacher at Junior High School 22 and has been an Amateur Radio operator since 1962. After several years of using conventional methods of teaching his subject with less than the results he expected or desired, Joe decided it was time for a change.

With the idea of creating interest and excitement, he took the standard English curriculum and revised it around Amateur Radio as follows:

1) Teach the children Morse in the beginning of the term and get them to a point where they can copy their spelling and vocabulary in CW.

2) Use the Novice handbook as the class text. Diagram its sentences, examine its part of speech, etc.

3) Reading assignments from various Amateur Radio publications. Obviously there is a great deal more such as QSLing, letter writing, geography, math, speech, etc.

Joe's program receives no funds from any government agency or even the school itself. They are totally self-supporting. All of the equipment was purchased from a fund raised by Joe and the students. Even down to the postage, it's all done by the kids.

Quite a combination — English class using Amateur Radio as the main interest and a club to get them into operating and eventually licensed. Great job, Joe. We all will be looking for WB2JKJ.

For those who desire to submit their cards for judging send them to: WB2JKJ, Junior High School 22 Amateur Radio Club, 111 Columbia St., New York, NY 10002. (See related article and photos in March **Worldradio**, page 6.)


RADIO CLUB
PIURA

DIPLOMA

PERU – ZONA 1

SAMPLE

Otorgado a

Titular de la Estacion SAMPLE
Como testimonio de haber cumplido con las
bases reglamentarias comunicando con las
estaciones

Piura de de 19

OAI Award

The Peru-Zona I (OAI) award is issued by the Radio Club Piura to amateurs outside of Peru who have worked and confirmed at least five OAI stations on any band or mode since 15 July 1982. The

award fee is 8 IRCs (do not send $$); applications and your certified log extracts should be sent to: Radio Club Piura. Award Manager, P.O. Box 362, Piura. PERU.

Wolverine Award

The Wolverine Award has been sponsored by the Grand Rapids Amateur Radio Association since July 1956 and is offered to promote contacts with stations throughout Michigan. To make application for this award, the following applies:

United States and Canada stations

1) Must submit *cards* proving contact with stations in *at least 60* of the 83 counties of Michigan.

2) Contacts with mobile stations or any reports of less then *3-3-8* on CW, or less than *R3-S4* on phone will not be considered.

3) Contacts must have been made after 1 January 1947 on any or all bands, either phone or CW or both.

4) Applications must be accompanied by $2 in cash or stamps to cover cost of return postage and handling.

Stations outside of continental United States and Canada

1) Written proof of contacts may consist of a detailed list showing dates, times, calls, reports sent and received, and operator's name.

2) Must submit proof of contacts with *at least 25* counties of the 83 in Michigan.

3) Applications must be accompanied by 4 IRCs.

The All Counties Endorsement seal is a gold seal, imprinted with the seal of the State of Michigan in the center, surrounded by the words: All Counties Endorsement.

To obtain this endorsement seal, holders of the Wolverine Award:

1) Must submit *cards* proving contact with stations in all 83 counties of Michigan, excluding the counties already worked to obtain the Wolverine Award.

2) Application must be accompanied with $2 in cash or stamps to cover cost of postage and handling.

Send requests to: Awards Chairman, GRARA, P.O. Box 1248, Grand Rapids, MI 49501.

Well, that's all for this month. Best 73 and good DX, Scott. □

Virginia club's Amateur of the Year

Al Crawford, WA4TCJ

When members of the Virginia Beach Amateur Radio Club (VBARC) gathered to enjoy their annual Christmas party recently, they also honored one of their own. Wally Burkett, WA4KXV was named as the club's "Amateur of the Year."

Wally received a one-of-a-kind cypress plaque with a digital clock mounted on it. This award was presented in recognition of WA4KXV's many achievements and contributions in the field of Amateur Radio and to the community served by the club.

Wally serves as Assistant Emergency Coordinator for the City of Virginia Beach; he is also starting his second term as president of Tidewater Radio Conventions, which sponsors the annual "Amateur Radio — Computer Convention" for the Tidewater, Virginia area.

In addition to these duties, Wally is trustee of the 146.37/97 repeater in Virginia Beach. As a result of his repeater activities, he has been a member for four years with the CVRA-Southeastern Repeater Association and is now one of its Assistant Directors. He is active in this group's frequency coordination efforts.

Wally was first licensed in 1963 and has remained active since. He had his first repeater (146.34/94) on the air in 1964.

Wally Burkett, WA4KXV (left) was recently named "Amateur of the Year" by the Virginia Beach Amateur Radio Club. The cypress plaque — presented to Wally by club president Al Crawford, WA4TCJ — has a digital clock mounted on it.

For 20 years, Wally's interest and activities have never ceased. In addition to the "official" activities already mentioned, Wally is usually one of the first amateurs to come forth with an offer of assistance to his brother amateurs. Over the years, WA4KXV has held many positions in the club and is one of our past presidents.

The members of the VBARC are proud to have Wally as a very positive example to all amateurs and are pleased to have been able to honor him as "Amateur of the Year." □

Apply now for scholarships

The Foundation for Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to award 10 scholarships for the academic year 1983-1984. The Foundation, composed of 50 local area Amateur Radio clubs, fully funds two of these scholarships from the proceeds of the Gaithersburg (Maryland) Hamfest. It administers, without cost to the donors, two scholarships for the Quarter Century Wireless Association and one each for the Richard G. Chichester Memorial, the Radio Club of America, the Young Ladies' Radio League, the Edmund B. Redington Memorial, the Amateur Radio News Service and the Columbia (Maryland) Amateur Radio Association.

Licensed radio amateurs may compete for one or more of these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled or have been accepted for enrollment in an accredited university, college or technical school. Most of the scholarships require the applicant to hold at least an FCC General Class license or equivalent. The scholarship awards range from $300 to $900 with preference given in some of them to residents of specified geographical areas or the pursuit of certain study programs.

Additional information and an application form can be requested by a letter or QSL/postcard, postmarked prior to 31 May, from the scholarship committee chairman Hugh A. Turnbull, W3ABC, 6903 Rhode Island Ave., College Park, MD 20740.

The Foundation is devoted exclusively to promoting the interests of Amateur Radio and to the scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service. □

●●●

A great gift for your overseas amateur friend is a *Worldradio* subscription.

The Lejo Perpetual Award

Born in the fertile brain of Lee Owens, WD6DGI and manufactured by his hands, then nurtured in the imagination of Joe Brown, W6UBQ, the Lejo Perpetual Award Key is an annual award for members of the Riverside County Amateur Radio Association. It is presented for exceptional, dedicated and/or accidental service to the amateur community.

Criteria for selection are:

1) Recipient must be an active Association member.

2) Activity must have been unusual, unique or unpredictable.

3) Recipient must agree to return this award key to the club at year's end and to be a member of the selection committee for the next recipient.

4) Recipient shall be an average person, like the rest of us, who may have been at the wrong place at the right time, or vice versa.

5) Recipient agrees to bring the award key to each club meeting for use by the presiding officer as a gavel.

The Selection Committee shall consist of the club president, the previous year's recipient, and the originators of the award, but only during their lifetimes. The 1982 recipient was Bob Lyon, N6AUI. President is Don Young, KA6DZU. The award was first presented in December 1978. □

VIP awards

P.A. Reed, K6DMF

Special awards were given to the Sierra Foothills Amateur Radio Club and Nevada County Amateur Radio Club (both of California) at a VIP (California Department of Forestry Volunteers In Prevention) awards dinner last December.

Individual awards and letters of appreciation were presented to: Ron Menet, N6AUB; Bob Nordberg, W6ARO; Frank Law, WB6CCT; P.A. Reed, K6DMF; Dave Percival, WB6GOM; Gary Watt, KD6GY; Bill Walker, K6GYB; Jim Standley, KA6GZI; Mary Ann Simmons, N6HJA; Grover Cleveland, KC7IW; John Tiernan, KA6LNC; Bob Baker, WA6MCT; Floyd Worth, W6ZOH; and last, but not least, Lawrence Long the professional.

To top off the awards ceremony, Bill Walker, K6GYB was presented with a special plaque for over 300 hours of volunteer service.

AMSAT OSCAR

Dr. Norman L. Chalfin, K6PGX

Phase IIIB launch delayed again

The Phase IIIB launch date has again been delayed. The date given by European Space Agency is 27 May 1983. We will try to update all of the technical details for the May issue of **Worldradio** in this column. Most of the frequency allocations for the Phase IIIB and Phase IIIC. AMSAT spacecraft were reported in the March column.

Speaking of the Phase IIIC, the Air Force has nixed a proposal by AMSAT to replace a ballast element in the DSCS spacecraft with the Phase IIIC spacecraft. The reason given was that the cost to modify the military rocket would be too great for an accommodation of the Phase IIIC. The offer made by AMSAT was that they would do all the necessary work, but doubtless there are more stringent considerations that remain unspoken.

SARSAT scores again

We have mentioned SARSAT in these columns in the past. For those of you who are coming across us for the first time, the SARSAT is a system now being installed aboard weather and other Earth-orbiting satellites by an international agreement to monitor the occurrence of ELT (Emergency Landing Transmitter) signals. These ELTs are turned on in the event an aircraft goes down.

When a satellite picks up the ELT signal, its location is reported back to the surface and ground searchers seek the aircraft in trouble. The SARSAT has been successful in aiding downed flyers in several recent events reported here.

The latest score indicates the efficiency of the system which radioed the location of an ELT to its home base. The location was transmitted to U.S. aviation officials who began an initial ground search of the reported location, which turned out to be the interior of a trailer where a flyer had been testing the unit and failed to turn it off. Fortunately, the gaff was discovered just before the Search and Rescue aircraft had begun to sortie.

South American Chief Area Coordinator tapped

Carlos Huertas, LU4ENQ, AMSAT Area Coordinator for Argentina has been named Chief AMSAT Area Coordinator for South America. Carlos has also agreed to serve as AMSAT Phase IIIB Special Service Channel Coordinator for that continent.

LU4ENQ will join the growing number of Phase IIIB Bulletin Stations who will be using the Special Service Channels (SSCs) after the satellite goes into its operational phase.

Transmissions from LU4ENQ will be primarily in Spanish with a target audience of radio amateurs in South and Central America as well as the islands in the Caribbean. These transmissions will use information received via satellite from the Phase IIIB General Beacon as well as from other bulletin stations and will include news of Radio Amateur Satellite matters, radio propagation, DX and other information of general interest to the Spanish-speaking community. Assisting Carlos LU4ENQ will be AMSAT members — Pedro Colla, LU8EIC and Norberto Pennini, LU8DYF.

Carlos is a contributing editor for the Spanish language ham magazine **REVISTA**, the monthly publication of RCA, the Radio Club of Argentina. He writes a monthly column on VHF and satellites, providing the latest info on these matters to interested amateurs in LU-land.

When not at work (IBM Argentina), Carlos uses his TRS-80 Color 32K computer to perform AMSAT-related chores such as generating orbital data for monthly publication in *REVISTA*, transmitting BASIC satellite programs on FM-AFSK on the LU AMSAT Net, keeping a file of satellite users and local area coordinators, making mailing labels for local radio clubs, and a number of other computer tasks.

Congratulations and thanks to Carlos and his dedicated assistants — *Richard Zwirko, K1HTV*

AMSAT/OSCAR-8

The schedule for AMSAT/OSCAR-8 has been modified because of recent observations that the AO-8 battery was showing signs of weakness.

Mode A operations will be on Sunday, Monday and Tuesday UTC; Mode J operations will be on Thursday, Friday and Saturday UTC. *Wednesdays the craft will be off.*

UOSAT (OSCAR-9)

The deployment of the magnetometer boom and the low-frequency antenna boom of the UOSAT-AMSAT/OSCAR-9 is imminent, according to AMSAT sources. Perhaps by the time this reaches you in print, the long-awaited event will have occurred.

The UOSAT operations can be monitored between 4:00 p.m. local standard time daily on 145.825 MHz narrow band FM.

• ARRL announces they have a new *QST Satellite Bibliography* available. Twenty pages long, the list cites year, month, title, author, page and quantity of pages for each revelant **QST** article published since 1961. A similar list of relevant Strays since 1978 also is complete.

Both lists may be obtained from ARRL free of charge if you send a self-addressed, business-sized envelope stamped with three units of postage. Mail to: ARRL, 225 Main Street, Newington, CT 06111, Attn: *QST Satellite Bibliography* **(QST)**, January 1983, p.88)

• The KA9Q Phase IIIB orbit simulation videotape has proved to be very popular. To broaden its availabilty, three new tapes of the computer simulation are being added to the AMSAT Videotape Library. For borrowing a tape, write: AMSAT Videotape library, Roger Johnson, WBØGAI, 1627 36th Ave. Court, Greeley, CO 80634.

A nominal $25 deposit is required against the return of the tape. Write for complete instructions. Reserve early for your spring club meetings!

SETI

There has been increased activity in the Search for Extraterrestrial Intelligence (SETI).

Mysterious signals have been spotted at Hat Creek Observatory, about 170km north of San Francisco. The 26M antenna over a period of 35 days collected about 4,000 signals from some 10 million channel observations. These 4,000 signals were of a narrow band character that could signify a possible alien (ET) message. However, some 3,900 of them were traced to Earth or satellite sources near Earth. Of the remaining 100 signals, about 90 were eliminated. There are only 10 left which deserve a second look.

If you have a large dish you might try to catch some of these signals yourself. You might be the first to hear a direct message from an ET. That is something which the amateur fraternity should be the first to do. □

If you are involved in any emergency communications incident, send story and photos to *Worldradio*, 2120-28th St., Sacramento, CA 95818.

AMSAT/OSCAR QSL Bureau update

Perry Yantis, WB8OTH
AMSAT QSL Bureau Manager

Here is an update on the rules for using the AMSAT QSL Bureau. The bureau is now located at a new address.

At the present time, the bureau has cards for over 640 different stations that do not have envelopes on file. Most stations have from one to three cards, while others have as many as 15.

I would like to take care of these cards before Phase 3 is launched to make room for the expected increase in bureau activity after launch.

Any questions should be sent with an SASE to: AMSAT QSL Bureau, 1850 Lisle Ave., Obetz, OH 43207.

Rules

1) The AMSAT QSL Bureau serves the users of all Amateur Radio satellites with a complete QSL bureau for Amateur Radio satellite contacts (QSLs for QSOs other than satellite QSOs will be returned).

2) Stations wanting to use the bureau need only send three to six #10 SASEs with their call in the upper left-hand corner. DX stations include enough IRCs for each envelope on file.

3) To send cards through the bureau, arrange your cards in alphabetical order by call sign. Stateside cards are free. However, there is a charge of 5 cents per card for all stations outside U.S. postal districts.

4) Always keep the bureau informed of any changes in your address or call sign. If you have worked stations with more than one call sign, you should send envelopes for both call signs.

5) Mailings from the bureau will be at the end of each month. All envelopes with ANY cards will be sent at this time.

6) QSL cards that are received at the bureau when no envelopes are on file will be held, and the bureau will make an attempt to notify the user that he has cards on file. If no envelopes are sent to the bureau within a period of six months, the cards will be destroyed. □

CW buddies

Talk about keeping in touch! Arthur Schwartz, W2JUQ's first QSO on 80-meter CW in 1938 was with Phil Reich, W2HUG. They saw each other a couple of times in 1938, and then — 44 years later — Art contacted Phil by mail. They are now writing to each other and are planning an eyeball QSO in the near future. □

Advanced couple

Here's a new Advanced couple to add to your list: Vinnie Baker, N6HOE. Vinnie lives in Long Beach, California and received her Advanced Class license on her birthday — 5 February 1983. Her husband, Delno KA6UDD, was already an Advanced.

The Bakers have more time to spend with their radios now that they are retired from civil service. Delno was with public service; Vinnie was with the police department. □

Hamvention ATV/SSTV activities

Ron Flynn, KB8LU

Amateurs who will be attending this year's Dayton Hamvention, 29-30 April and 1 May, are in for a special treat. Two very special programs will be given at the ATV/SSTV Forum to be held Saturday afternoon, 30 April, at Hara Arena.

Stanley Brokl, N2YQ — senior engineer for the Jet Propulsion Laboratory of Pasadena, California — will come to Dayton to give a talk titled "The Ultimate SSTV DX." Stan is a member of the JPL ARC (Jet Propulsion Lab Amateur Radio Club) and is also the ARRL Section Manager for Los Angeles. The JPL ARC is well known for the excellent SSTV pictures and thousands of SSB and CW contacts made with amateurs in recent years, using the call signs N6V and W6VIO during Viking and Voyager spacecraft missions to Mars, Jupiter and Saturn. Stan's presentation will be augmented with spectacular slides and pictures of the planets which have not been publicly viewed before.

Jim Chladek, KA2NSJ and Larry Horne, N2NY will give a talk and video demonstration on how ATV is used in putting on the cable TV show called "Network Two New York."

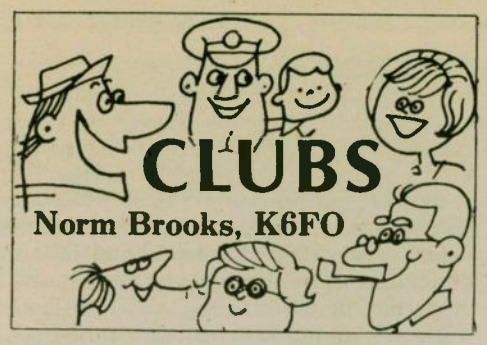
"Network Two New York" is a live cable TV show aired weekly on New York City's public access cable TV system. The show regularly features talks on various facets and new innovations in Amateur Radio, computers and satellite communications.

Plans call for making this program available to amateur groups throughout the country either via satellite or distribution of tapes. Moderator for the Dayton Hamvention ATV/SSTV Forum will be Ron Flynn, KB8LU, SSTV Editor for **Worldradio.**

The annual SSTV Get-together will be held during the Dayton Hamvention on Friday, 29 April, beginning at 7:30 P.M. at the Holiday Inn North of Dayton. There will be a social hour for visiting with friends followed by demonstrations of homebrew SSTV equipment.

Representatives of SSTV companies will be there to answer your questions. In addition, Stan Brokl of the JPL ARC will have available a limited number of 8″ × 10″ photos, 35mm slides, and souvenir cards from the Viking and Voyager spacecraft missions to Mars, Jupiter and Saturn. He will also have SSTV tapes of the best of the B&W and color pictures of Saturn. □

Share your knowledge with your fellow amateur and Worldradio reader . . .



A model radio club

For this April column, I want to tell you about a familiar Amateur Radio club. I won't tell you the name, however, for obvious reasons. Those of you who have been around Amateur Radio for a while might recognize it. Let's say this club is in a town named Alpha.

Organization

The club itself is organized like most radio clubs. There is a president, vice president, secretary, treasurer and technical committee chairman. This club differs from most other clubs in that members actually vie for the jobs. They run *campaigns* to get elected. (The technical committee chairman job is especially sought after because he gets to drive the club 4-wheeler as his personal car.)

At one time it looked as if there were three political parties in the club because three "slates" ran against each other. It was the DXers vs. the "communicators" vs. the ragchewers. The differences between these three cliques have since been resolved, and the club is now one big, happy family.

Newsletter

The club publishes an outstanding newsletter. It is typeset and printed in full color in a magazine format. If I told you the name of the newsletter, it would be a dead giveaway.

Financing

The club was left a legacy in the will of one of its deceased members. He was not very well known, but very rich and had no family. He had always dreamed of the "perfect" radio club, so he left instructions in his will as to how the club should spend the money.

To its credit, the club now is pretty much as described in the member's will. The club's treasurer put the fortune in the hands of professional money managers, and they invested it wisely.

Station

The club built a club station on what was once the member's estate. There is plenty of room for an antenna farm, since the property runs for several miles along an interstate highway. Antennas were erected and equipment installed. There is now an outstanding multi-multi-DXer contest station. There's a TV studio, with transmitters and mountaintop TV repeaters — both slow and fast scan. The satellite position has a computer-controlled tracker. The moonbounce station was fortunate to get some antenna dishes that NASA declared surplus. Currently, they are installing a packet radio terminal, spread spectrum controllers and computer-controlled cellular system on VHF.

The equipment is always kept "state of the art," and it gets replaced often. The "old" equipment is donated to members in drawings. How do they keep all this equipment working at peak efficiency? By hiring a top-notch station manager. His salary is $75,000 a year.

Field Day

The members always enjoy roughing it on the Field Day weekend. They drive their Super-Winnebagos and Coachmen to the Field Day site, owned by the club. Each year, the power utility company — for a modest fee — shuts down and isolates the 15-mile section of 500kV power line that passes through the property. This not only cuts the radio noise, but provides an excellent 160-meter antenna.

Public service

No public service event in Alpha ever takes place without club members providing the communications. Equipment is no problem because the club bought each member a new synthesized 220 MHz HT to use. The club is also a member of MARS, and the long-haul equipment is used regularly for phone patches for servicemen overseas. There are three WATS telephone lines used for this, so collect calls need not be placed.

Emergency service

The club participates in every Simulated Emergency Test. Perhaps this interest comes about because the county, Section and Division ARRL Emergency Coordinators are all club members.

Currently, the club has three mountaintop VHF/UHF repeaters, with emergency power and equipped with ELT receivers. They have two additional test sites using solar and wind power. A new computer-controlled cellular radio system is in the works, which will replace some of the repeaters.

The club is also working on an emergency communications van, completely equipped, that can be air-lifted to anywhere in the world.

At the local 911 dispatch desk, there is an Amateur Radio position, manned by a licensed amateur at all times. The police chief, who is also an Amateur Radio operator, says this is great — "especially when one of our members gets involved in hot pursuit."

Publicity

Publicity in Alpha is no problem. The local TV station and newspaper often feature Amateur Radio activities on prime time or the front page. Perhaps this is because the station and paper are both owned by a radio amateur who is also a club member.

The DX enthusiasts in the club hope to make the *Guinness Book of Records* with a novel idea. They plan to sponsor 318 DXpeditions, each one to a different ARRL country on the same weekend. They want to see who will be the first to earn a new award the club is sponsoring — THROW, The Honor Roll in One Weekend.

New developments

One of the members came up with an idea that has changed the complexion of the club markedly. He suggested building a championship grade golf course under the rhombics for the Far East and Australia. A country club was organized, with a big plus — membership for radio amateurs is free. However, the townspeople must pay their way.

This golf club dues structure led to an interesting byproduct. It filled up all the code and theory classes!

Classes

The code and theory — new and upgrade — classes put on by the club are superior. Top-quality instructors vie with each other for the honor of teaching them. Perhaps this is because the club pays

YOUR LOCAL RADIO CLUB

ALASKA

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

ARIZONA

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

CALIFORNIA

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CONNECTICUT

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

FLORIDA

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

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.

GEORGIA

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

HAWAII

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

ILLINOIS

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

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

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

IOWA

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

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

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

MARYLAND

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

MICHIGAN

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

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

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

NEW YORK

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

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

Long Island Mobile Amateur Radio Club (LIMARC)
146.25/85, 147.975/375, 223.22/.224 .82, 444.125/449.125
Membership: Jerry Kamen, K2QXH, 44 Robin Lane, Levittown, 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

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/ 47.165-147.765
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 1536, 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.

WISCONSIN

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

WEST VIRGINIA

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

salaries above those at the local university.

Quality is high, and the university gives college credit for passing. Top-notch students are attracted, too. The club finances scholarships leading to E.E. degrees for outstanding students.

Have you identified the club by now? Think about it. If you finally give up and want me to tell you, call any time on 1 April 1983. My number is (916) 555-2368.

FCC to allow amateurs to sell ads

In a move to alleviate the effects of the latest round of budget cuts, the FCC has told highly-placed members of the Amateur Radio community that it will authorize amateurs to sell advertising on their QSOs in the ham bands. Proceeds from the sales will be turned in to the FCC and used by the Commission to help pay salaries, police the airwaves, etc. Hams would not be allowed to keep the revenues from their ads, an FCC spokesman said.

According to FCC informant, Spiffee Jivvetts, "The Commission intends to control the number of 'spot announcements' that a ham station can sell during a QSO, so there won't be the kind of commercial pollution you see in commercial broadcast radio." He went on to explain that ads on the ham bands would be limited to no more than five minutes every half hour.

The new policy is expected to go into effect 1 April. Before long, we can expect to hear more and more QSOs like this: "Thanks, OM for the call, but before I fill you in on the QTH and the RST, let's take time out for a word from Little Crusties, the ham-flavored breakfast cereal for real hams."

Late word in from the GEARVAKf newsroom says that the League of Radio Relaying Americans has volunteered to act as an agency for all hams in the placement of advertising on their stations.

— Joel Rose, N8JR
— Last item from GEARVAKf Bulletin □

S.F. Shrine Temple Radio Club

Nolan Katz, KB6LT

Islam Shrine Temple is among the latest to announce formation of its Amateur Radio club. It is starting its first year of operation under President Nolan Katz, KB6LT and Secretary Amos Kanaga, W6BAA. We already have over 50 members. Our First Vice President is John Kewi, KD6QD; Second Vice President is Tom Morse, KA6EUD.

We plan to offer emergency radio communication whenever needed. Members of the Temple staff have already promised us a space to set up a radio room.

Our net meets once a month, on the second Wednesday at 9:00 p.m. local time. The frequency is 145.37 (-600). Members of the Shrine interested in joining our club can receive information by contacting KB6LT, 1305 Elmer St., Belmont, CA 94002; (415) 592-2855. □

Repeater installed

Submitted by Roger Peister, KA0CRI

Thanks to donations from the Scottsbluff (Nebraska) Amateur Radio Emergency Service group and from the Panhandle Emergency Medical Service (PEMS), local amateurs now have the use of a VHF repeater that was installed last October on the roof of West Nebraska General Hospital. Jim Weber, WD0BQM, Emergency Coordinator (EC) for Scotts Bluff, Banner and Morrill Counties, and Lee Ehlers, PEMS Coordinator, are among those who realize the value of the new repeater, since messages can now be speeded up — vitally important during emergencies.

Jim was among three amateurs who installed the repeater. The others were Merlin Rice, WD0BQG and Roger Peister, KA0CRI, Assistant EC.

— Information from Scottsbluff Star-Herald, NE □

Amateurs eager to donate

Shirley Rice, KA0BCB
Nebraska SCM

On 12 September, amateurs from Wyoming, Nebraska and South Dakota attended the Torrington Club annual picnic held at Old Fort Laramie (Wyoming). Among those attending were Dick Carnahan, WA0IJY (Indoor Junk Yard) and his wife, Joanne. We were all so happy that Dick could be with us last year, as he had been fighting a bout of kidney disease. Dick and Joanne travel 150 miles round trip to Scottsbluff, Nebraska twice weekly for a renal dialysis treatment.

After Dick and Joanne had left the picnic, I suggested that it might be fun to pass the hat to see if we could come up with the funds needed to purchase a 2-meter synthesized rig. Within minutes, money was dropping on the table. Dick Wunder, WA7WFC, Section Communications Manager for Wyoming, expressed such interest that he was asked to be the banker for the project, and he was delighted to accept. Soon money started pouring in from all sources, including Dick's family, friends, 68 amateurs and two clubs.

On 15 October, eight amateurs from South Dakota, Nebraska and Wyoming surprised Dick by delivering a Kenwood TR-9130 and installing a KLM (13-LB) antenna using 200 feet of coax.

Dick said the new equipment has enabled him to be of better service to the public and to other operators by increasing the number of bands he can monitor and the distance he can transmit to and receive from.

"We need that machine in that area with an experienced operator like Dick," explained Merlin WD0BQG. "He's semi-confined and can monitor 12 or 14 hours a day while the rest of us can only monitor one or two hours a day .... he's invaluable to us."

"I'd rather donate my money, time and effort to this than collect money for a memorial," explained Shirley KA0BCB.

— Information in last three paragraphs from Scottsbluff Star-Herald, NE □

Plenty of new items this month that you should know about. Some are Amateur Radio products, and some are pieces of information, such as nets and things like that.

Let's first talk about products. The new Kenwood TS-430 HF transceiver is a beauty. It's bound to give ICOM a run for their money. The ICOM IC-720A has been an outstanding maritime mobile performer. However, the new Kenwood TS-430S has many more microprocessor features than the ICOM 720.

Yes, you are probably asking, but can it be modified for emergency use on maritime channels? Yes. Simply remove a single jumper. The set automatically transmits anywhere from 1 MHz through 30 MHz. And yes, it will also operate semi-duplex between two different MHz bands, such as KMI, WOO and WOM operating in an emergency.

The 8-channel scanning feature on the new Kenwood TS-430 is handy to guard several different frequencies almost simultaneously. The scanning feature also memorizes whether it's lower sideband or upper sideband for each channel. Squelch is also nice on single sideband while you are waiting for a signal. Even the FM add-on kit is nice for maritime mobile work at 29.6 MHz.

Comparing the two, both have equal amounts of power output and equal amounts of receiver sensitivity. It's clear that the new Kenwood TS-430S has many more features for maritime mobile work than the old faithful ICOM 720A. The only unanswered question is whether or not this new rig will prove as reliable as the ICOM. The ICOM 720A's were super performers, and we hope the new Kenwood TS-430S will have this same reliability in a wet environment. There is absolutely no reason to imagine it won't, but only time will tell. Check out the new Kenwood TS-430S if you haven't already.

Other new items include a new triband fiberglass whip antenna, as well as a 5-band fiberglass whip antenna from Berthel Industries, 8374 Bella Vista, Alta Loma, CA 91701, (714) 865-1545. Their multiband whip antenna is ideal for maritime mobile installations. There are no coils to change, no antennas to change, and no tuners required to resonate this on each of the Amateur Radio bands. It is 10 feet overall, and 1.125 inches in diameter at the base. It tapers down to a quarter-inch at the top with no loading hats, spikes or visible traps. It is all fiberglass and stainless steel construction.

Earlier tests on this antenna indicate good performance, but only at low-power levels. High-power checks would cause the internal trip mechanisms to change values.

I have now been assured that their new modified antenna will take the full legal limit and will be rock solid for frequency stability at resonance.

You still need a whopping groundplane for this antenna to work. It simply won't load without a groundplane. No antenna of a vertical quarter-wave nature will. This takes a 50 ohm piece of coax, so the groundplane must be exactly beneath the feedpoint terminal.

I plan to work with this antenna shortly aboard several boats, and I'll give you more details. As for now, it looks like it has some real merit, but we still haven't actually tested one over several weeks.

One small antenna that we *have* tested has been the AEA 2-meter "Hot Rod" that goes atop your hand-held set. This little antenna appears to outperform all other $\frac{5}{8}$-wave telescopic whips on hand-helds that we have matched it against. It's also smaller. It has a slightly higher angle of radiation, which makes it nice for maritime mobile work through distant repeaters. It requires no groundplane, so your results will be more consistent. If you're looking for a small telescopic whip for your ham hand-held, consider the AEA "Hot Rod."

Shakespeare in South Carolina still continues to produce some of the best SSB whips in the country. These whips are ideal for installations where an antenna tuner is available. They come in all different sizes, and will radiate your SSB signal well if a ground counterpoise is available.

As for tuners, Cubic (Swan) still continues to have a real nice one with dual meters — the ST3B. I am also impressed with the NYE tuner, and I wish they would send down a sample for evaluation. Any reports from NYE users? The two meters — one showing forward power and one showing reflected power — are really the way to go. A single meter won't cut it for SWR checks.

MFJ is also sending out an antenna tuner for me to test. They say theirs are smaller but will handle the same capacity as others. They are also less expensive. More news about the MFJ tuners as soon as I get my hands on one for maritime mobile work.

If you are looking for some nice television-type antennas for your vessel, try Winn-Tenna Company, 911 Amity Rd., Anderson, SC 29621, phone (803) 261-3965. This organization produces fiberglass television antennas for powerboats. They work well and are omnidirectional. The same company also produces fiberglass and stainless steel HF whip antennas for marine installations. I have tried them and they work extremely well. When you change bands, you change the complete fiberglass loaded whip and stainless steel "stinger" assembly. Like other whips, they all require a good groundplane. They mount on a common ball mount. They are also super for mobile use.

A Heil microphone

I should also mention Hustler mobile whips ... the *standard* of the industry, and always top performers.

Do you do a lot of 40-meter work? If so, you may want to write Signal Engineering, 26-A Hangar Way, Watsonville, CA 95076, for information on their new SE40-2 40-meter rotary antenna for maritime and mobile use. (Phone — 408-722-9842; ask for Greg.) This antenna does all its loading up at the top, and it does this via capacity effect. I have operated the antenna aboard a boat and found super bandwidth with good results. The thing looks a little strange, but who cares — the performance is excellent. Write Greg for more details. By the way, they also make a very compact 40-meter beam using this same principle.

Those Spider mobile whips are working out just super for 4-band maritime mobile operation from a single antenna assembly.

Our final review is a positive one of the Heil sound equalizer systems for maritime mobile use (Heil Industries, Marissa, IL 62257, phone 618-295-3000). Bob Heil, K9EID — a fellow 29.6 MHz enthusiast — does plenty of work in helping clean up the audio on most Amateur Radio installations. You may wish to write him for more information about his microphone accessories and mikes that will add clarity to your maritime mobile installation. I have heard the difference!

Finally, here's a list of some of the most popular nets around the country. You may wish to clip this out and put it with your transceiver. I especially recommend the 14.340 MHz Manana Net. My friend Gil Smith, W6FSF runs this net informally, and he always welcomes Pacific Coast mariners to check in. Incidentally, it was through this net that we first learned of the disaster at Cape San Lucas when a freak storm drove over 20 boats ashore, completely wiping out each and every one of them.

You will find the Manana Net one of the friendliest nets on the air. Anyway, good cruising, and here's the latest on what's on the maritime mobile frequencies. □

MARITIME MOBILE NETS

Meters	Band name	kHz	Zulu	Ends	PST	PDT	Days
15	Inter-American Net	21,415	2030	0	1230	1330	
15	Int'l Maritime Net	21,404	2200	2300	1400	1500	Mon/Fri
20	Seafarers/Maritime Service Net	14,313	200	500	1800	1900	
20	DDD Net-Pacific for Canadians	14,115	400	0	2000	2100	Daily
20	Maritime emergency	14,310	400	1600	800	1900	
20	Pacific Maritime	14,313	500	600	2300	2400	Daily
20	Marianar-Guam	14,310	700	800	2300	2400	Daily
20	So. Pacific	14,315	800	0	0	100	
20	Gunkholers Net-Tulagi	14,328	1000	0	300	200	
20	North Net	14,345	1445	0	745	745	Daily
20	Marqueses	14,340	1545	0	745	845	
20	Atlanta	14,313	1600	1700	800	900	
20	Cal-Hawaii	14,340	1630	0	830	930	
20	DDD Net-Pacific for Canadians	14,115	1730	0	930	1030	Mon/Fri
20	Chaplin Robinson	14,313	1800	2300	1000	1100	Daily
20	Manana	14,340	1900	0	1100	1200	Mon/Sat
20	East Coast Waterway	14,290	2130	0	1330	1430	M-W-F
20	Calif to So. Pac.	14,285	2300	2310	1500	1600	Mon
20	Calif. to Caribbean	14,285	2310	2320	1510	1620	Mon
40	Carib Net	7158	0	0	1600	1700	
40	East Coast Waterway	7268	1330	0	530	630	Daily
40	Baja Net to LaPaz	7235	1600	1630	800	900	Daily
40	Maritime Mobile	7245	1600	0	800	900	
40	WESCARS	7255	1700	0	900	1000	Daily
40	Serarpe Net Admirals	7280	1730	0	930	1030	Sun
40	Shamaru/Smitty Hawaii Net	7285	1900	0	1100	1200	
40	West Coast Admirals	7190	2230	2300	1430	1530	Daily
75	So. Pacific	3815	715	0	2315	15	
75	East Coast Waterway	3968	1345	0	545	645	Daily

MARITIME MOBILE CW NET

Frequency: 14.040 (± if QRM)

Time: 0330, 0730, 1230, 1730, 2230Z each day of week.

Originator: W4FRR, yacht WASKESIU (Westsail 32). Mailing address — P.O. Box 381, Front Royal, VA USA 22630.

1) The MM CW NET is a volunteer service net catering the CW marine mobile Amateur Radio stations on the high seas and in port. However, we encourage traffic from all others.

2) The NET has no assigned NC, but rather relies upon there being interested amateurs willing to take the initiative at the opening time for each schedule. The station first sending *(1) shall be NC for that session.

NC to designate one of the fixed stations to QSP traffic directly to addressee, or if not workable, to his local CW net tied into the NTS.

If it appears, after one minute of silence from the start of NET time, that NET is uncontrolled, the MM with traffic may send *(4). It is hoped there will be a fixed station willing to QSP even though he elected not to be NCS.

(Continued on next page)

MARITIME MOBILE AMATEURS BY CALL

			Handle	QTH	Boat Name	Net
XE	2	ABC	Stan Liebermann	Guaymas	(KD6NN in USA)	ALL
N	7	ACG	Dave	Seattle	Alegria	BAJA
N	6	ADJ	Ralph	Long Beach	Bright Star	BAJA
W	7	AE	Len	Tucson		BAJA
N	7	AEU	Don	Tucson	BAJA	
WD	6	AGM	Bob	Ukiah	Simoon	BAJA
KB	6	AM				MANA
WD	6	AMH	Jack	Coronado	Festina	BAJA
N	6	ANT	Howard	San Diego	White Cloud	MANA
WD	6	ATT	Bob Muhler	Corona del Mar	Alegria	BAJA
WD	6	AWH	Dick Kazine	Newport BYC	Nixie (Riemers)	BAJA
WB	6	AZQ	Chuck	Pauma Valley		BAJA
KB	6	BHI	Stan Loy	Portland		NRTH
N	6	BKT	Jerry	San Diego	Honeymoon Slp	BAJA
WB	6	BNB	Stan	Santa Cruz	Fridolf	BAJA
WA	6	BPG	Frank	Palm Desert		BAJA
WA	6	BQY	Dick	Palo Alto		BAJA
W	6	BRY	Don	Paso Robles		BAJA
N	6	CAM	Dee Dee	Mazatlan	Golden Voyage	NRTH
KA	6	CAS	Jack	Long Beach	Sea Song	BAJA
KA	6	CIL	Holmes	Newport Beach	Siri	BAJA
N	6	CKI	Harvey	Balboa	Full House	BAJA
K	6	CNN	Terry	Turtle Bay	Erotica	BAJA
N	6	CTB	Robin & Wade	Orcus Island	Colina	NRTH
KA	7	CTM	Howard & Wilma	Vashion Island	'Newporter'	NRTH
N	6	CUJ	Fred	Santa Ana		BAJA
W	6	CUT	Homer	Riverside		MANA
N	6	CYZ	Harry	Manzanillo		NRTH
N	7	DAE	Ray	Portland	White Cloud	BAJA
N	7	DAL	Carl	Washington	Mystic	BAJA
N	6	DBN		Manzanillo		BAJA
N	6	DBN				
N	6	DEN	Bill Lapworth	Newport Beach	Merrydown (Peggy)	NRTH
KA	6	DFE	Beverly	Newport Beach		BAJA
N	7	DHS	Allen Trunnell	20N 114W 12/04	Running Free	NRTH
W	6	DHX	Warren	San Diego	Capella	BAJA
WD	5	DIM	Claire Braden	Caribbean	Fortress Cove	PAC
N	6	DJI	Pat (net cntrl)	La Mesa	Serena	BAJA
N	7	DLZ				BAJA
N	7	DLZ				
N	6	DNK	Howard	Oxnard	Dulcinea	BAJA
N	6	DOM	Carl	San Diego	Gadget III	BAJA
N	6	DOQ	Vernon	Fallbrook	Rainbow	BAJA
N	6	DXE	Bill	Coronado		BAJA
K	6	DYA	Dick	Newport Beach	Spray	ALL
N	6	ECC	Jean			BAJA
WD	6	ECW	Nancy Spencer	Huntington Beach		NRTH
W	6	ELU	Ramsey Armstrong	Balboa		MANA
KA	6	ERD	Burt	Newport	Carina	BAJA
N	6	ESY	Mary	Newport Beach	Merrymaker	BAJA
N	6	EVL	Nelda	Long Beach		BAJA
WA	6	EWI	Jim/Carol	Tahiti 3/81		PAC
K	7	EXJ	Craig	Washington	Kibitka	BAJA
N	6	FAD	Art	Santa Cruz		BAJA
N	6	FAK	Bud	Sierra Madre		BAJA
N	6	FBI	Jan	Costa Mesa	Makaira	BAJA
KB	6	FBK				BAJA
WD	6	FDY	Ed	Newport Beach	Sea Flight	BAJA
KA	6	FEK	Rob	San Francisco	Samba Pa Ti	BAJA
W	6	FH	Jack	Coronado		BAJA
WA	6	FJE	Glenn Thorpe	Mission Viejo	Tuff (Brownie)	NRTH
N	6	FJI	Fred	Julian	Serena	BAJA
W	6	FNY	Don	Richmond		BAJA
KB	6	FW	Larry	Balboa	Macho	BAJA
WD	6	GAQ	Al	Thousand Oaks		BAJA
N	6	GBO	Chet			ALL
N	6	GBO				
WA	7	GMP	Roland			
W	7	GVU	Steve	Whidby Island	Enchantress	NRTH
KB	5	HA	Kermit	Albuquerque	Net Control	MANA
KE	6	HE	Paul	Long Beach		BAJA
KH	6	HEO	Mac	Honolulu		SEAF
W	6	HEW	Mort	San Clemente	Andiamo	BAJA
K	6	HG	Don Anderson	BYC		ALL
KA	6	HJW				BAJA
KA	6	HJY	Betsy Hill			
KB	6	HN	Mike Sansky	San Clemente	644-7074	?
KA	6	HNI	Charlene	Seal Beach		BAJA
KH	6	HO	John	Honolulu		PACM
KH	6	IIL	Jim			
K	6	IKI	Bill	Sherman Oaks		MANA
W	6	IM	Walt Martins	San Diego SDYC	Coastal Star	BAJA
KA	6	INT	Russ	Coronado	Rendezvous Agn	BAJA
K	6	IRR		Loreto		MANA
KH	6	ITL	Jim	Honolulu	Vendaval	BAJA
KE	6	IW	Dee	Coronado	Larkspur	BAJA
KA	7	JEY	Eric	Seattle	Halcyon	Baja
KA	7	JKE	Bill	Everett, WA	Moonshadow	BAJA
W	7	JMS	Bruce	Phoenix		BAJA
K	6	JPW	Pancho	Puerto Vallarta	Siesta	NRTH
WA	7	JQP	Don	Phoenix	Annette	BAJA
WA	6	JUC	Conrad	Long Beach		BAJA
KA	6	JVN				BAJA
KA	6	JYE	Marijean	Seal Beach	Skybird	BAJA
KA	7	JZM	Ann	Seattle	Akamai	BAJA
W	5	KBP	Trevor	El Paso		BAJA
KA	7	KGO	Len	Seattle	Ptarmigan	BAJA
WA	7	KMS	Bruce	Phoenix		BAJA
WA	6	KQZ	Dick Steele	Newport Beach	Jubilee	?
KA	6	KTG	Dave	Oxnard	Gibson Girl	BAJA
W	7	LBP	Dan	Seattle	Joggins	BAJA
N	6	LF	Rudy	Seattle	Springtime	BAJA
W	6	LFK	Herb Brodreck	Newport (Bills)	Marine Trader	?
WB	6	LFY	Charlie McKenna	Coronado	Jolie Madam	BAJA
WA	6	LLO	Betty (Bob)	Long Beach	Kalona	BAJA
W	6	LN	Frank	San Diego	Dreamboat	BAJA
KL	7	LR	Gene	San Diego	Artic Ace	BAJA
KA	6	LRH	Rita	Artesia	Starship (Lost)	NRTH
W	6	LSB	Jack	San Diego	Ventura	BAJA
KA	6	LXJ	Bill	Sonora		BAJA
KA	6	LXT	Ken	Long Beach	Kairos	BAJA
KD	6	MO	Wes	Long Beach	Natalie	BAJA
W	7	MOI	Dick	Tuscon	Shortwave	BAJA
KA	6	MSF	Al	Redondo Beach	Serenity	BAJA
KL	7	MZ	Harry	Alaska	Whalesong	BAJA
WA	6	NAF	Bill			NRTH
WA	6	NAM	Harold			MANA
KE	6	NB	Bud	Sierra Madre	Pelican	BAJA
KA	6	NCI	John Thorne	Newport Beach	Sirroco	ALL
KA	6	NEQ	Mel	Port Townsend	Rejoice (Tech)	BAJA
KE	6	NG	Fred	Byron, CA		BAJA
W	5	NIL	John	El Paso		BAJA
VK	7	NLU	Jeff	Hobart, Tasmania	Goondaloo	BAJA
N	7	NSI	John	Orcus Island	Harmony	BAJA
KL	7	NZ			Sandcastle	BAJA
KF	5	O	Dave	Texas	Marvida	BAJA
KE	6	OA	Fred	La Paz	Serena	BAJA
WD	4	OFP	Chester	Florida		BAJA
WA	6	OHB	Leona	Livermore	Malaga	BAJA
WB	6	OMP	Janet	Newport Beach	Honeywind	BAJA
K	7	OPX	Joe	Tucson		BAJA
K	6	OPX				BAJA
WB	6	OUV	Pete	Coronado	La Casa del Mar	BAJA
KA	6	OZZ	Ollie	Irvine	Clytte	BAJA
KC	7	PC				MANA
W	6	PEU	Brit	Fallbrook		BAJA
WB	8	PHB	Geo & Tom Jones	?	Torlie	?
KB	6	PV	Macia	Laguna Hotel	Cerigo	BAJA
AE	6	Q	Frank	Long Beach	Ensueno	BAJA
W	6	QD	Herb	Los Alamitos		BAJA
KA	6	QDG	Stan	Ventura	Monalice (Tech)	BAJA
KA	6	QII	Marge	Long Beach	Vanaros	BAJA
W	6	QMX	Don Cheezeman	Glendale	La Fiesta	ALL
KB	6	QP	Rich & Bonnie	Caribbean	Drifter	PAC
KA	6	QYV	Tom			BAJA
WA	6	RHY	Ken	La Paz 11/79		MANA
WB	6	RRA	Joan	Marina del Ray	Pou Sto	BAJA
W	6	RRI	Jack	La Jolla		BAJA
W	6	RTN	John	West Covina		BAJA
W	7	RVD	Jim	Bremerton		PACM
K	6	RX	John	Alpine		BAJA
ND	6	S	Jim			MANA
WA	6	SYF	Chuck	Balboa	Rogue	BAJA
WB	6	TAI	Dale Kellogg (BYC)	Newport Beach		BAJA

(please turn to page 41)

Arrange to QSY after initial contact.

After five minutes into NET time, if no traffic, NET can be used for initial call-ups. *Arrange to QSY after contact.*

3) Duration of NET for each session shall be five minutes, unless traffic warrants an extended period.

4) If NET is controlled, after NC has sent *(1) two times, and logged in all participants, he shall send *(2) perhaps every five seconds interspersed with *(3)

5) Do not use QN signals on those other than regular NET participants. Traffic need not be in ARRL Net format when taking from the MM fellows; however, recipient shall convert to such form if finding it necessary to QSP into NTS, and he shall be the originator.

6) All MM is encouraged to use the NET, and though formal ARRL format is encouraged, *IT IS NOT NECESSARY;* however, each message must include address, telephone, and indicate if to be "local only," "short haul," or "long haul." If not authorized for "long haul," and no fixed station to accommodate "local" or "short," we will put it into the NTS.

7) *It is important the NC respond to other stations AT THEIR SPEED, however slow.*

*(1) "MM CW NET/ (your call) QNI K"

*(2) "MM CW NET/ (your call) QRU IMI K"

*(3) "MM CW NET QTU 0330 0730 1230 1730 2230 Z QTX 5"

*(4) "MM CW NET QTC 1 de (his call) k"

• People reaching People •
Amateur Radio is what Worldradio is all about.

TEACHER

Alan Kline, KB1DJ

In five years of organizing Amateur Radio code and theory classes, my instructors have helped over 300 people get their Novice or General license and get on the air. Of that, only five under the age of 18 lasted till the end of the course. Most kids dropped out from boredom. That isn't a good sign for the future of Amateur Radio.

Taking this as a warning of doom for our hobby, I take every possible opportunity to demonstrate Amateur Radio to any group that will listen. My other educational committee members and supporters have shown a movie about Amateur Radio and have set up both 2-meter portable and low-band stations at many civic, scout, senior citizen, CB, boating groups and and at many high schools, malls, libraries, yacht clubs and rehab hospitals.

Adults are easily hooked. Many already have some interest in Amateur Radio and just need a little push into taking a class. But getting young kids interested is always harder. Junior and senior high school students have much competing for their time already. By the time they reach 13 years old, many are too active to stay indoors with a hobby like Amateur Radio and, for many of them, they have grown up in an electronic society already — video games and computers are a regular part of their life.

I have tried in vain to get my neighborhood kids into my shack; they, too, always seem to get bored and have many other commitments. They are not impressed by me talking to the "other side of the pond."

Once, after talking to a group of 7th and 8th graders and then discussing it with my own 4th grade son, I decided that by the time the kids reach junior high school, most students are formulating their own ideas about their career goals. Where does that leave us, those who want them to become amateurs and consider communications and electronics as career choices?

One of the answers is to introduce them to Amateur Radio while they are still inquisitive and curious about the world around them — especially during a period in their lives when they still get excited about new concepts. It is not important that they all become amateurs but that they become aware of Amateur Radio and communications. This is while they are in the 4th, 5th and 6th grades. Now, you can't invite all the kids in town into your shack, but you can bring the shack to them.

Here in Massachusetts, the local governments are cutting back all school department budgets. This leaves the Parent-Teacher Association (PTA) to pay for the extracurricular activities the cities and towns used to pay for. Besides the basic subjects, the schools have even cut back in the area of sports, home economics, the industrial arts and most after-school activities. This means that when you offer the school and the PTA a free program that offers a talk on career choices in the communications/electronics fields, offer to show an Amateur Radio movie. Better yet, set up a low-band station; everyone will be glad to cooperate with you.

Once your program idea is approved, be sure to let the teachers know what you are planning. They might want to tie in their daily lesson plans around your appearance at their school. They can cover the Morse code/communications aspect, and the geographical, cultural and international goodwill views as well. If they show enough interest, invite them to your shack for a visit. Remember, they control the future of America.

Demonstrating Amateur Radio in the elementary schools is different than in malls and in Field Day-like situations, so it is best you check out the school beforehand. After having done a few of them, I take the same equipment to all demos.

As I always show Dave Bell's ARRL movie, I constantly check it out after all showings to make sure the film is in good shape. We are lucky to have a ham friend in the AV department of a large local corporation, who cleans the film and resplices it when it breaks. I don't trust some schools' 16mm movie projectors, so I rent one from a trustworthy source and the projector has never given me trouble. The school can supply you with the screen and extension cord for the projector.

In selecting a rig and an antenna to use, I found that a completely self-contained transceiver is best. Most recently, I have had good results with an ICOM IC-740 because it has a built-in AC power supply, SWR/power meter, excellent filtering, good audio and is compact enough to hand-carry around. *Any* rig will do, but the less amount of gear you have to use, the better. And remember, no QRP rigs; you don't need any handicaps.

As for the antennas, remember the demo will be during school hours, so chances are good that any band will have somebody on it. But you will want to impress them with some DX, so try 10/15/20 meters and possibly 40 meters. I like using the TA-31, which is the driven element for the famous Mosley TA-33 Triband beam. It is easy to break down into two pieces and hang like a dipole of support in the center. I have also achieved good results with the TENNA-TAPE Dipole. It makes a good 40-meter dipole or inverted Vee. In later columns, I plan to go into detail about different methods of portable antenna supports and the other particulars about this kind of demonstration.

Be prepared for a lot of varying questions. For those of you with kids in these grades, you'll find it great experience for you and your kids to bring Amateur Radio into their classrooms. When parents show up at school, especially dads, it always seems to add to the excitement.

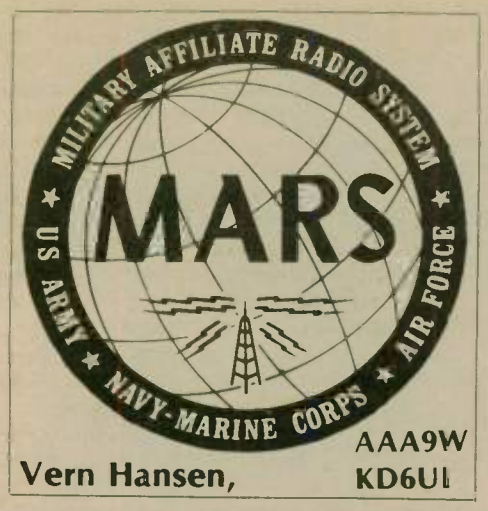
Most of you reading this column are probably saying that you can't give up a workday to try these ideas out. Well, this is a great project for any club to do. Just try these simple ingredients: one retired amateur who likes kids, one Amateur Radio movie, and a low-band rig with a simple antenna. Mix them all up in a local elementary school. They will combine to spark the flame that keeps Amateur Radio alive. □

Extra couple

On 22 December 1982, Elmer Cummings, N8DLX joined his wife in the Extra Class ranks. His call is now KZ8O. His XYL, Peggy, had upgraded to Extra only one month earlier — 19 November, from N8BBK to KY8Y. The Cummings' live in Burton, Michigan. □

See you in *Worldradio*

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



Vern Hansen, AAA9W KD6UI

The following article appeared in the Spring '82 edition of the Navy/MarCorps MARS publication Kilowatt. *The article was prepared by Al Konschak, NNN0ASI 12, and was taken from* Pentagram News *by MAJ B.J. Dunlevy-Wilson (USAF).*

MARS — voice across the sea

The voice was weak and fading, but every word seemed priceless. For three quick minutes, echoing words bridged the miles between your room and the distant military outpost, while you talked about the things that bind together two hearts. All too soon, it seemed, the time had passed and the call was over. You'd become a veteran at saying "over" during back-and-forth radiotelephone conversation, and you eagerly looked forward to the next MARS call.

At first you'd thought MARS was part of the space program, but you long ago began to depend on the Military Affiliate Radio System (MARS) to help you maintain family ties through military moves around the world. Each of the military services — Army, Navy-Marine Corps, Air Force — operates its own MARS system. But you found that all the services were eager to serve any military member or family (as well as overseas DOD civilians). With hundreds of military stations around the world and thousands of stateside "affiliates" — radio amateurs volunteering their time and equipment for MARS service — you learned to depend on MARS as a low-cost and reliable way to keep in touch.

MARS provided you with radiogram and radiotelephone service to bases around the world whenever the host nation permitted it. The relay service has always been absolutely free to the users, but sometimes you've accepted a collect station-to-station call from a MARS operator when no local radio operator was able to relay the call. And it was always worth the dollar or so you invested. During the last few Christmases, your calls came in completely free because the USO picked up the long-distance charges.

You remember the time last year when Senator Barry Goldwater delivered a message to you, paying the phone call from Arizona himself. And the time the North American Rockwell station in California called and paid the bill with employee contributions.

Every day and night MARS radio operators work long shifts to keep the messages flowing by shortwave radio. At times, atmospheric conditions require some messages to be relayed a dozen times or more before they reach their destination. At remote bases in Antarctica, Alaska, Diego Garcia, Korea and Germany, MARS circuits are a unique blend of military command-and-control stations, base recreation-welfare activities, and volunteer "ham" stations. Although their primary mission is to provide military commanders with a backup communications link, the MARS system responds to civil disasters and personal welfare needs as time permits.

You've probably read about some of the spectacular things MARS has done: MARS was the last radio link with the U.S. Embassy in Saigon during the final evacuation. MARS provided the main radio and telephone link to . Alaskan military bases during a massive communications failure. MARS was a primary disaster response circuit during Colorado's Big Thompson Canyon flood, the Guatemala earthquake and the Teton Dam disaster. But if there's anything you remember about MARS, it's the willingness of MARS operators to help service families keep in touch.

The Washington, D.C. area is a good place to be if you need to contact a MARS station. Each of the services operates a primary shortwave station in the area, and there are numerous auxiliary stations and affiliate amateurs nearby. You can send messages or get more MARS information from any of the following stations: Army MARS (Station WAR) Fort Meade, MD (301) 677-7011; Navy MARS (Station NAV) Cheltenham, MD 238-2268; Air Force MARS (Station AIR) Andrews AFB, MD 981-6277; Coast Guard MARS (Station NCG) Alexandria, VA (weekdays only) (202) 557-5414.

Because of the established flow of radio traffic, it's always easier for MARS phone patches — the telephone calls — to be initiated by the person overseas. However, radiogram messages can be sent any time, day or night, from any MARS station.

Messages can be sent to or from military personnel anywhere in the United States and many overseas locations. (Yes, you can send messages within the United States.) DOD civilians stationed overseas may also use MARS services.

MARS can be a valuable help in maintaining service quality-of-life by helping families keep in touch. Don't you think it's time you used MARS again? After all, the price is right! □

Bruce L. Humphrys, KØHR

A comment on progress

Just the other day I was looking at an issue of **Spectrum**, the Journal of the Institute of Electrical and Electronic Engineers, Inc. This issue dealt with a short synopsis of technology advances in 1982 and what to expect in 1983. For those of you who get **Spectrum**, it's the January 1983 issue. On page 74, they show the cockpit of the new Boeing 767. The cutline for the top photo reads (in part), "Computer-generated imagery takes the place of conventional instruments in the cockpit of the Boeing 767. . . ." The picture is a beaut. Shows some really neat instruments in full color which are generated by a computer, and not really mechanical instruments at all.

For anyone who has ever had a flight yoke in hand, the "new" instruments will — at the same time — be very familiar (in looks), yet very different. Technology has taken over. Taken over the base mechanical workings of such old standbys as the altimeter, radio compass, and even the artificial horizon. I can remember having to get the gyro going on an artificial horizon on an Air Force bird I worked on before turning on the DC. No more — the artificial horizon is computer-generated in full color.

Nothing too exciting . . . yet. Upon a closer examination of the picture, something all of a sudden jumps right out at you. Right there in the center of all this electronic wizardry is an old-fashioned turn and bank indicator — you know, the steel ball in a bent glass tube with viscous fluid in it. The same kind Piper put in the J-3. The same kind Lindbergh stared at across the Atlantic. The same reliable old instrument that has been in virtually every cockpit since the invention of flight. Imagine! A lowly turn and bank indicator among all this fancy electronic gadgetry. Does that tell you something? It does to me. Simply put, sometimes you just can't beat the reliability of operation and ease of interpreting the information from the old standby equipment and modes.

Which brings me to my point. The FCC is considering a codeless license — that we know. Preliminary indications are that one of the reasons they are coming out with this recommendation is to make it easier for handicapped people to obtain a license. The Courage HANDI-HAM System has, through the years, been steadfastly against the lowering of code requirements for handicapped applicants. To be sure, many severely handicapped people have difficulty copying code at prescribed speeds. What must be emphasized, however, is the overwhelming number of severely handicapped people who *OVERCOME* those disabilities and do it anyway.

It looks like a no-code type of license might allow operators privileges on VHF — phone only. That's nice, but for the people who really — and I mean *REALLY* — cannot copy the code because of a handicap (usually cerebral palsy), a phone-only license would be worthless. Most of these people are speech-handicapped as well and simply cannot get on phone. To them, their *ONLY* mode of communication is Morse code.

Well, to get back to our communications cockpit for a moment, we simply cannot afford to neglect the old standby for the sake of technology advancement. Code works well, and in some cases is the *ONLY* thing that works. I sincerely hope we never lose sight of the concept which gives all qualified ham operators full advantage of our frequency spectrum. There must be some reason why Boeing is not doing away with the turn and bank indicator, maybe two: 1) nothing else can do the job as well, and 2) it is one piece of equipment which EVERY pilot can use.

'Nuff said about code. This is my last time writing this column. From next issue on, the column will be written by our Student Coordinator — Maureen Pranghofer, KFØI. Maureen will bring to this column a unique perspective and great writing skill. Her work with handicapped students of the Courage HANDI-HAM System is well known worldwide and prepares her for some really interesting storytelling.

Maureen and I — along with all the other staff at the System — sincerely appreciate your continued reading, comments and support.

My sincerest "Best Wishes."

Bruce Humphrys, KØHR has been our 'With the HANDI-HAMS' columnist for over four years, and has done a great job. We here at **Worldradio** *thank him for his time and efforts and wish him the best of luck in the future.* □

He doesn't let handicap stop him

Jane Johnson, K3RIH

Rich Mathieson, KA3ECB is membership chairman of the Delaware County Amateur Radio Association. The fact that he is legally blind is an inconvenience, not a handicap, to this remarkable Drexel Hill, Pennsylvania amateur.

Rich has diabetes and lost his sight 13 years ago. Prior to that he was an active young man who participated in many athletic pursuits such as baseball, scuba diving, sky diving and drag racing.

His diminished sight did not turn him off from life but merely forced him to look for other means of expression. He found art a happy compromise. He studied at the Philadelphia Museum of Art and he has completed free-style sculptures such as sea nymph, sea captain, vertical spiral, and a lady with tiger. Other projects were pictures in bas-relief, candleholders, vases and planters. Some of the more remarkable pieces have been cast in bronze.

Rich, though legally blind, has some light perception. He and his wife of four years, Ann, looked for a home that would be bright and sunny and on a rise for good reception. Soon after they found that home and moved in, ham friends rallied to put his antennas up.

Rich became an amateur just three years ago — a recruit from the CB bands. He prefers voice communications but does enjoy the feeling of sending and receiving code. He wishes manufacturers would put out a handi-talkie with a beeper system for blind amateurs. With his very limited vision, he cannot read the led readouts.

Rich Mathieson, KA3ECB

A faithful worker for the club, Rich is always on hand at the weekly nets on the club frequency of 147.36 to give an accurate and up-to-date membership report.

His wife Ann is indulgent of the hobby. Rich chuckled as he remembered how she called him while he was in the hospital for surgery and asked, "How do you turn on 36?" She missed the chatter.

This versatile amateur aptly demonstrates the old adage that there is no handicap behind the microphone.

Good show, Rich! □

Who needs CW?

A merchant ship battled 15-foot seas and 50 knot gale force winds on 8 December to save the crew of a sinking Indian freighter 700 miles off the Oregon coast. The rescue ship, the *Timor Girl*, out of Singapore, steamed 35 miles through the rough conditions to aid the crew of the *Jala Morari*.

According to the Coast Guard's Lt. Mark Ashley in Seattle, Washington, most of the communication with the sinking ship was by Morse code because of a language problem with the all-Indian crew of the *Jala Morari*. Ashley said, "The rescue would just about have been impossible if not for the CW contact." Need we say more? Tnx Alan Kaul, W6RCL.

— *Westlink Report* □

AMATEUR RADIO MISSIONARY SERVICE

Upholding the Arms of the Missionary through Amateur Radio

The Arms motto

". . .let us do good unto all men especially unto them who are of the household of faith." Galatians 6:10

ARMS nets

		Local Time	
Eastern	M,W,F	7:00 am	3.907
Mid-West	Sat	8:30 am	3.907
Rocky Mtn.	Sat	8:00 am	3.907
South-East	Sat	7:30 am	3.907
South-West	Tues.	10:00 am	7.227
Transcon	M-Sat	1600 Z ST	14.307
		1500 Z DT	14.307

Every amateur welcome to check in.

For additional information write:
K7AQ, Charlie Cox
325 Hillview Drive
Grants Pass, OR 97526

(First of a series)

There was a time when most QRPers were running the Heath HW-7 or the Ten-Tec Power Mite (PM) series of transceivers, if they were not running homebrew gear.

In the more than 10 years since those early low-power CW transceivers were introduced, of course, more elaborate successors have come and gone. But at one time, they amounted to state-of-the-art gear. Try to recall the last time you encountered an HW-7 or a PM-2 or PM3 on the air — or ran one yourself.

Many of them are gathering dust on shelves, but they are diamonds in the rough for the QRPer willing to do a little work and invest a few dollars to come up with much-improved versions that will help keep pace with the latest rigs being marketed.

Their price tags make them very attractive also. It's not uncommon to find them at swapfests or advertised in the classified sections of ham magazines for as little as $25 and in good shape.

Leaving the PM series for a later column, let's look at the HW-7 first. It's a basic vanilla CW transceiver for 40, 20 and 15 meters with an output of up to about 2 watts. While its transmitter section is adequate, even by today's standards, the receiver is another matter, and it is here that this article will concentrate.

Back-to-back articles on improving the receiver front end on the HW-7 were run by **QST** in its December 1973 and January 1974 issues. Both are good circuits, although the one by Doug DeMaw in the January issue offered a companion audio filter. It also can be applied to the PM-3, which will be discussed in a later column.

Dramatic improvements in receiver sensitivity and selectivity have been obtained from these modifications.

Other improvements include a keyer[1] and a 25 kHz crystal calibrator[2], both of which can be tucked neatly inside the rig. If you want to do away with the noise of the antenna change-over relay in the HW-7, substitute a single-pole, double-throw reed relay tied to a 12-volt source on one side of the coil and either to the output of the keyer or to the key jack on the other. The original relay can be removed from the board and a resistor with a value equal to the coil's resistance substituted in the circuit.

The output impedance of the audio section of the HW-7 is high, whereas most headphones today are in the 8-to-16-ohm range. This problem can be overcome by purchasing a small audio output transformer of about 1,000 ohms in the primary to 8 or 16 ohms in the secondary. Radio Shack sells one for about $1.50, and it will tuck neatly inside the transceiver case with the other add-ons. The transformer primary connects between C-17 and ground, with the secondary connected to the headphone jack. Since the primary centertap is not used, it may be cut off flush with the case.

The ARRL still sells a template and layout for the DeMaw PC boards[3], or boards for either front-end conversion may be obtained from Dynaclad Industries[4], which also offers a PC board for the 25 kHz crystal calibrator.

These are just a few of the easy, inexpensive ways the HW-7 can be updated and brought back into action, particularly as a weekend rig for camping or other outings. Don't let that HW-7 sit there and continue to collect dust.

FOOTNOTES:

1. See **QST** for June 1982 or November 1971.
2. See **QST** for October 1978.
3. Available from ARRL, 225 Main St., Newington, CT 06111, for 50 cents and a large SASE. Specify the DeMaw January 1974 article when ordering.
4. Box 296, Meadow Lands, PA 15347. $1.50 for 20-page catalog. □

30 meters is like 'good old days'

Kurt Renner, KT0L

For you brass pounders who would like to experience what it was like to operate on the ham bands 25 years ago, give the new 30-meter segment a try. I have been on the new band almost daily and have found it most rewarding. The band is never crowded, yet there are always amateurs throughout the world to ragchew with, and I do mean ragchew! With the small number of amateurs using the band at present, the operation is more relaxed.

I am at present using my 80-meter inverted Vee with a tuner and having good results. It roughly calculates to about 3-¼ wavelengths on 30 meters, so should be a gain antenna. The tuner is needed to compensate for the change in input impedance at the center of the antenna, but it is working well for me; I have worked about 20 countries to date.

Give the new band a try and enjoy band conditions the way they were 25 years ago.

— *North Iowa ARC, Mason City, IA* □

TRAFFIC

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

CW on way out?

In the January 1983 issue of *Signal*, the journal of the Armed Forces Communications and Electronics Association, Commander L.V. Dorian of the U.S. Coast Guard says that a new system — SITOR (Simplex Teletype Over Radio) — is now carried by nearly a thousand major commercial vessels, supplements manual CW telegraphy and ultimately will replace it as the primary mode for commercial maritime communications. It "permits automatic transmission and reception of record traffic under conditions not possible with other methods, even the time-honored CW telegraphy."

SITOR is microprocessor controlled and includes error-correcting techniques in its programming.

Single sideband brought an end to the use of CW aboard aircraft. Now it looks like its one remaining commercial use is threatened, not only by SITOR but also by satellite communications. It's a matter of simple economics: it costs about as much to install these advanced modes of communication aboard a ship as it does to pay a Radio Officer for one year's work, and the costs of this type of equipment are going down while Radio Officers' salaries are going up.

It will not mean the end of CW, however. Nor of Radio Officers. It will mean only a change in function. CW will have to remain as a backup system, a very simple and reliable means of communication when nothing else is available. The simple gear of the 1920s that could be built by youngsters of high school age or less is as effective now as it was then. And the tit of the Sparks aboard modern ships is b ing changed to Radio and Electronics O ficer, whose responsibilities are rapidl shifting toward maintenance and awa from operating. Not only in the rad room, but in the wheelhouse, engine roo and elsewhere aboard the modern sh electronic devices are appearing and ma functioning, and you can't send the back to the factory from the middle of th ocean.

For us amateurs, who don't have to pa a salary to those who operate our tran mitters, economic constraints all fav CW: lower cost gear, lower operating cos simpler maintenance, more economic use of spectrum. You can get on the a for $50 or less via CW. If we amateu become the sole major user of the mod our use of it may become a national asse as the Amateur Radio Service would co tinue to provide a place where one cou communicate in an emergency using sim ple gear when nothing else is available.

Even our U.S. spacecraft are equipp for CW communication, in addition to the other voice, telemetry and control c cuitry they carry. Several times in trai ing aboard spacecraft simulators, the i structors arranged for simulated loss all communications. The standing orde in such situations were to terminate t flight as rapidly as possible. But t astronauts in training always fir reached for the telegraph key to ma sure they couldn't communicate by CW It wasn't written in the program, b they did it anyway. One of these day after everything else has gone digital, may hear an SOS on our ham bands bei pounded out by an astronaut in the m dle of the Pacific from a space shuttle th wasn't able to make it into orbit.

Missionary nets

There was a listing of nets organized providing support for missionaries, Pea Corps workers and the like, that appear in the June issue of last year. Rob Hardwick, KB6DG wrote to point out omission — the HALO net was not list one of the busiest of them all. W apologies, I'll do it now.

Look for it daily on 21,390 kHz 1900Z. That frequency is much l 14,313 on the 20-meter band: the Int American Net follows the HALO net 2000Z, and after the second net closes becomes a free net, with no control s tion and with stations calling, mak contact, then moving off to another f quency to communicate.

Here is a revised listing of mission nets, those we have been able to discov

Adventist Amateur Radio Network 14,305 kHz 1500Z Sunday, 0030Z W nesdays, 1900 Thursdays; and 21, kHz 1700Z Sundays.

Amateur Radio Missionary Serv (ARMS) — 14,307 kHz 1600Z (1500Z d ing Daylight Saving Time) exc Sundays.

HALO Net 21,390 kHz 1900Z daily

International Mission Radio Asso tion (IMRA) — 14,280 kHz 1900Z (18 during Daylight Saving Time).

One problem that missionary nets h is to maintain observance of the p hibition of business traffic in the amat bands. The IMRA, for example, has net control stations remind everyone the beginning of each session that th are rules as to what may or may not handled. My experience has been that general, we amateurs tend to be ex sively scrupulous in this matter, m often refusing what is actually legitim than passing what is illegal. But ma it's better that way. The few who ab our privileges can endanger them for a us.

In this connection, I received a note from Armond Brattland, K6EA, saying that he finds frustrating the current ARRL's refusal to accept traffic or to send radiograms at headquarters, feeling that it would be business traffic. Armond says in earlier times "Ed Handy used to handle a lot of things via radiograms in and out of W1AW and otherwise."

It seems to me that things like membership applications, purchase of publications and hiring of staff would be business communications, as would be requests for reimbursement by officials entitled to it. But requests for technical information, reports on traffic handled, accounts of public service events and comments on matters affecting the Amateur Radio Service would not constitute business communications.

On the other hand, you might do better sending your gripes to your Director anyway. Your Director will have no qualms about accepting your traffic and will probably give you more satisfaction than you will get at headquarters; such things are the director's job.

You're new here, aren't you?

Probably many amateurs don't venture into the traffic game for fear of being tagged as newcomers. You will be tagged as such, but you'll find it's nothing to be ashamed of. We were all newcomers at one time. And if there is a net or other group handling traffic that has more help than it needs, I'd like to hear about it. We need all the help we can get, so we want to encourage newcomers to join our ranks.

There are a few things to watch, however, that will make your newness less obvious. None of them is concerned with sending CW fast. In fact, the runaway bug or keyer often is a dead giveaway that the user is new at the game. You'll find many old hands that can copy 40 wpm who seldom send faster than 20. They have learned that a slower speed often moves traffic faster as they make fewer mistakes and so don't lose time in making corrections, and the receiving operator likewise gets it all the first time and no time is lost in fills. When two of them get together, however, and they decide to speed up, it can be impressive to hear them clear traffic at 35 or so, with few or no fills or repetitions.

Traffic operators generally do not repeat anything when using CW, unless conditions are bad or something is unusual. Thus you will hear amateurs in a casual contact give their names, locations, signal reports two or even three times, and who will send their calls several times. But if you check into a CW traffic net and the net control station asks for your name and/or location, give it only once. And don't say QTH *is*. Look up the meaning of QTH and you'll see that the word *is* is included, so to add *is* is redundant.

R means "I have received everything you have sent." Don't send *R* or say "Roger" when you still need some fills. You might find the other station beginning the next message, or worse yet, leaving the frequency thinking you have the message and so the message is lost. Don't say "Roger" until you mean it.

Generally, punctuation is omitted in formal messages, except for X and QUERY in the text, and the American Morse comma (AA) separating the lines of the address when CW is used. There is no need for an X to follow QUERY, nor for an X at the end of the message.

Use break-in. Any traffic station worthy of the name will be arranged for rapid switching from transmit to receive. When using CW, the ideal is "full QSK" or the ability to hear the other station even between the dits and dahs of an individual letter, but "VOX break-in," which allows the receiver to come on at least between words, is a fair substitute. On voice, just about anybody can arrange the station to switch to receive as soon as one releases the microphone button, or if VOX is used, can set it to switch to receive with a very short delay so that during the ordinary pauses as you send a message you would be able to hear the other station and to listen to what band conditions are.

Having break-in is one thing, but it does little good unless it is used. The operator who holds the mike button down continuously while transmitting a message has nobody else to blame when the receiving station replies at the end, "I didn't get any of that. Somebody came on frequency and tuned up all the time you were sending the message."

Take your finger off the button. If you are receiving, break the sending operator. Even if you don't have break-in yourself, the other station might have it, and it's worth a try, instead of waiting until the end and then having to do it all over.

If the sending operator is going too fast, whether at the mike or with the key, break in and say, "You're going too fast," or QRS. If you miss a word you can break and ask for a repetition immediately instead of waiting until the end and risking forgetting to get it. If you have to do this every three or four words, however, maybe you should ask the transmitting operator to slow down.

If people have trouble copying you on CW, you might make a tape recording of your sending some time. It may well reveal that your spacing is poor. Do you send P for AN or vice versa? Or SM for 3? Doyousometimesrunwordstogether? Sloppy sending is not a mark of a newcomer, however. Some of the worst offenders are old-timers. The amazing thing is that other old-timers who are on to their ways can copy what to everybody else is pure garble. I've heard commercial ship operators call a station that could have been WPA, WAX or WWU — I couldn't tell which. But somehow the proper operator answered. Please don't develop a sloppy fist, however, to make yourself sound like an old-timer! □

Long-ago QSL surfaces

Lenore Jensen, W6NAZ

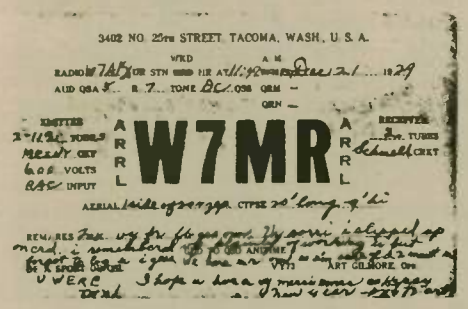
Fifty-three years ago, Art Gilmore — then W7MR, later KA6SFM and now N6GKV — was a teen-aged operator in Tacoma, Washington. He worked Donald Pile — then W7AFX and now K7EQ — on 21 December 1929.

Recently he received his original QSL back from Don and **Worldradio** was the link!

Art returned to Amateur Radio last year after an absence of half a century. (He'd been too busy as a top radio and TV announcer in Hollywood to devote time to our hobby.)

His photo was in this publication a few issues back. Don (who apparently has both a remarkable memory and filing system) remembered the name, looked up the call in the Callbook, found the QSL and shipped it down to Art in Sherman Oaks, California. A nice gesture.

By the way, the original QSL bore a penny stamp. □



Maritime Mobile

(*continued from page 35*)

WB	6	THU	Henry	Mill Valley	Reliance	BAJA
W	6	TTT	Evert	Escondido		BAJA
WA	6	TUD	Sue	Seal Beach	Folly III	BAJA
W	6	VCM	Curt Smith (BYC)	Newport	Lacorra	BAJA
K	6	VEL	Chuck	Long Beach		BAJA
WA	7	VIT	Leon	Phoenix		BAJA
WB	6	VOU	Dan	Garden Grove	Huntress	BAJA
K	6	WB	Fred	Long Beach	Skywave	BAJA
WA	6	WDN	Stan Lieberman	Guaymas	(XE2ABC)	ALL
WA	7	WOU	Chuck	Friday Harbor		NRTH
WN	6	WTK	Paul	Palos Verdes	Toyon	BAJA
N	7	XE	Bob	Las Vegas	Rosario	BAJA
K	6	YEO	Carl	Livermore	Malaga	BAJA
KD	7	YN	Wade Hill	San Juans	Colina	NRTH
KD	6	YR	Frank Throussell	Baja	Schmarie	NRTH
W	7	YRD	Clyde	Tucson		BAJA
KB	6	YT	Steve			NRTH
WA	6	ZCN	Jim	Bethel Isle	Cold Duck	BAJA
KB	6	ZT	Charlie	Mount Coronado	Boomerang	BAJA

174 RECORDS PROCESSED □

Over the years of watching and listening on the SSTV frequencies, I have made some observations about SSTVers that may be true for all amateurs. I spend more time listening and learning on the SSTV frequencies than I spend participating in SSTV QSOs. In doing so, I learn a lot about other people and what they think and also find out a lot about SSTV products and equipment, how they perform, and what others think of them.

SSTVers come and go for various reasons and different lengths of time. People you work almost daily suddenly disappear and are not heard from for weeks, months or even years. Some never return. Obviously, SSTV is not for everyone and not all the time. Jobs, family responsibilities, health, hobbies and other personal situations keep many away from SSTV. Other ham interests take our SSTV friends to other frequencies from time to time.

Product loyalty

I find it interesting that product loyalty seems to be a valid reason for some SSTVers to be completely off the air for periods of time. Sure, all amateurs have some sort of product loyalty. Everyone has his favorite brand name rig and antenna. When the time comes for a new piece of equipment, many will again buy only their favorite brand. That's fine. There is nothing wrong with that. If the old rig and antenna still worked, though, the simple fact that they were old wouldn't keep you off the air.

SSTVers over the years have developed product loyalty to certain SSTV manufacturers and innovators. This is fine, too. However, I'm curious and don't understand why some SSTVers choose to stay completely off of SSTV, even though their older equipment works fine, simply because their favorite innovator is not in the spotlight with a new development or piece of equipment.

With the introduction of the Microcraft 1000 high resolution B&W scan converter last fall, a small vocal but loyal band of SSTVers returned to the air after long absences as if they were pardoned from a long exile. Welcome back, but you didn't have to stay off the air all that time.

A year or so ago, a new stand-alone hardware/software SSTV system was introduced for the TRS-80 Color Computer. CoCo owners appeared on the SSTV frequencies in droves almost overnight. They disappeared as fast as they came. Now they are coming back. There is a new SSTV program available for the CoCo. Maybe they won't disappear so fast this time.

New revolutionary systems?

With the Dayton Hamvention just around the corner, I wonder just how many SSTVers who are loyal to other innovators are off the air, still waiting for their man to come through.

During the months preceding last year's Dayton Hamvention, the SSTV frequencies were saturated with promises by innovators of "revolutionary new systems" to be revealed at Dayton. We didn't see any new "systems" at Dayton last year. We saw the well-known commercial SSTV systems and a couple pieces of homebrew equipment. The homebrew AM 8-second color and the homebrew digital scan converter that were shown fulfilled about half of the promises made about them.

Now, a year later, neither of these homebrew pieces of equipment have been heard from. Neither one has been working on the air. Nothing ever came of them. They have been forgotten.

What bothers me is that now, in the months before Dayton 1983, the same innovators are again filling the SSTV frequencies with promises of "revolutionary new systems" to be revealed again at Dayton. Are there SSTVers out there, again getting their hopes up that finally this year their man will have a system for them so they can get back on SSTV? Despite their promises, some innovators have shown no new or revolutionary systems in recent years.

Frankly, this year-after-year pre-Hamvention hype is getting stale. There is much more to developing a new SSTV "system" than wire-wrapping a box full of components. To turn a wire-wrapped idea into a SSTV system, it first of all must perform as promised. It must be assembled and marketed in the form that the vast majority of SSTVers would buy it in. Otherwise, you would be lucky to have half a dozen people build up your box and get it working.

Let's hope Dayton 1983 will not bring another round of false promises. Let's hope these innovators will finally come through and have a "revolutionary new system" and that you and I will be able to order, buy and operate their systems on the SSTV frequencies in a reasonable amount of time. If your man doesn't come through this year, I'd scratch him off and go with a proven system.

Mod review

Now that the warranties are about over for the hundreds of you who took advantage of the sale of Robot 400s, you may be inclined to take the covers off the 400 and see what's inside. You've heard about the various mods for the 400, and maybe you would like to put one or more in your 400. Following is a brief description of the most popular Robot 400 mods and how and where to get them.

First Sync Mod — the most useful 400 mod. When you move your TX switch to the Memory position, you reset the counters in the 400 and begin sending your first frame right from the top of the picture. You simultaneously transmit a sync pulse which resets all receiving monitors. Everyone sees your first frame of SSTV in unison right from the top.

Graphics Overlay Mod — many versions available. Allows you to superimpose graphics from any source (camera, keyboard, tape or received over the air) onto an existing picture in the 400's memory without losing that picture.

256 Mod — a misnomer. Halves the clock speed of the 400. Send and receive a 128 pixel × 128 line SSTV picture in 17 seconds instead of 8.5. More picture information gets through the QRM. Required for next two mods.

Four Quad Mod — enables a standard single-memory Robot 400 to receive four different 64 pixel × 64 line SSTV pictures and load them into any of four different picture positions or quadrants.

Zoom Mod — enables you to take any one of the smaller SSTV pictures in the Quad Mod above, blow it up to full size, and transmit it over the air. There is less resolution, so the blown-up pictures appear more digitalized.

25.5 Second Single-Frame Color — a new mode of transmitting color SSTV pictures. The RGB color SSTV pictures are sent line sequentially. Alternating lines of RGB are sent in a single 25.5 second scan. The mod is available to enable the standard Robot 400 to copy this scan rate picture in B&W.

The First Sync Mod and Graphics Overlay Mod were first published in this column in the June 1982 issue of **Worldradio**. Schematics and full installation instructions were included in the article. Reprints of that column are available from me. Send an SASE and one extra 20 cent stamp to Ron Flynn, KB8LU, Rt. 2 Box 204, Bangor, MI 49013.

Schematics for all of the above mods, with instructions for some, are available from Interface Systems Inc., Rt. 4 Box 634 K, Lindale, TX 75771. Send a large SASE with 37 cents postage. State which mods you would like to try. Be reasonable! Include some extra stamps to defray the cost of making copies. □

Getting started in SSTV

Slow scan television (SSTV) is an exciting medium for Amateur Radio operators. Whether you are an inactive amateur who has lost interest or an active amateur looking for new challenges, SSTV with Microcraft's VIDEOSCAN 1000 is the answer. If you can operate a home TV camera and adjust a TV monitor you have the necessary skills to operate SSTV on the amateur radio bands.

Presented below are generalized answers to questions often asked by people not involved in slow scan TV. Hopefully, this information will help you decide if you want to get into this wonderful world of amateur slow scan television.

What is the difference between "regular TV" and SSTV? The bandwidth required for regular TV (sometimes called fast scan TV or FSTV) is about 4.5 MHz. This bandwidth is more than all the combined HF bands available to U.S. amateurs! So from a technical point of view, FSTV on these bands is not practical for amateurs.

SSTV, however, uses only a 3 kHz bandwidth, which permits transmission of pictures over voice grade radio channels. This narrow bandwidth will not allow the transmission of motion. However, good quality "still" pictures can be transmitted in reasonably short periods. Transmission times vary from 8 seconds for amateur-standard low-resolution pictures, to 34 seconds for high-resolution pictures.

Are special receivers and transmitters needed for SSTV? Definitely not! You can use your regular ham station SSB receiver and transmitter (or transceiver) to operate SSTV.

The SSTV signal from VIDEOSCAN is fed directly to the microphone input of your transmitter. For reception, the SSTV signals are coupled from the audio output of your receiver. SSTV gear like VIDEOSCAN can be regarded as an add-on to your existing station, like RTTY gear. VIDEOSCAN has all the necessary jacks and switches for complete station operation. You just add a few cables, a TV camera and TV monitor.

Who can operate SSTV? Any General, Advanced or Extra Class amateur can operate SSTV. SSTV operation is restricted to the phone portion of the bands. Generally speaking, a licensed U.S. amateur can operate SSTV on the same frequencies he uses for phone.

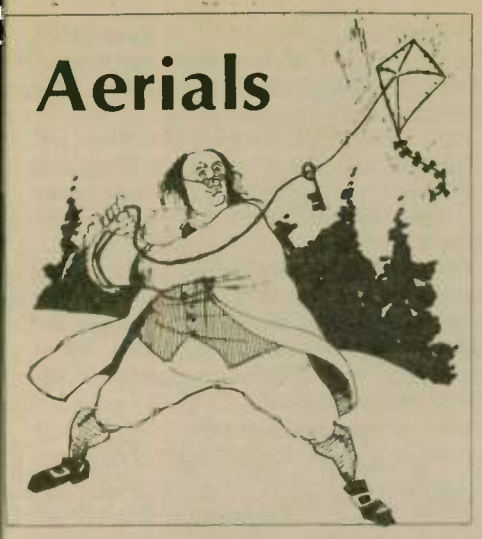
Is there much SSTV activity? There are over 15,000 SSTV stations in over 100 countries around the world. Imagine receiving pictures from England, Germany, New Zealand, Italy, Canada, Mexico, South America, Japan or Africa. DX-CC on slow scan is a worthy goal and has already been achieved by several amateurs.

What kind of pictures are seen on SSTV? Pictures vary considerably, depending on the personality of the operator. Pictures of the operator and the ham shack probably top the list. Other SSTVers specialize in cartoon subjects, family photos or vacation pictures.

Pictures of the planets from U.S. spacecraft are transmitted regularly by N6V — a specially licensed station at the Jet Propulsion Labs in California. These pictures are of historic value and are usually transmitted only minutes after being received on Earth. □

Share your knowledge with your fellow amateur and Worldradio reader

Aerials



Lil Paddle

Kurt, you are NASTY! Your comments in last month's issue were terrible. So you got to put down some with lesser knowledge. Shameful! So they don't have the same background you do. What would you know if your Uncle Sammy hadn't sent you to radio school and then given you the GI Bill?

You Ft. Monmouth wonder. I've grown so tired of your buddies coming over to drink beer (How you can call this lolly water of yours beer is beyond me!), hearing you say, "Haw, incentive licensing is nothing new. We knew if we flunked out of radio school, we'd be trading in our soldering iron for eight and a half pounds of clip-fed, gas-operated semiautomatic . . . That was real 'incentive!' "

Who else on this earth sleeps with a 1945 ARRL Handbook under his pillow? Who else walks around with such an old book clutched to his chest and proclaims, "Best dollar I ever spent." Sometimes you are insufferable. And you must be the only person east of the Mississippi who keeps insisting on calling dipoles "doublets." Yecch!

Hams aren't the only ones with stoops in their lot. Several years ago when I lived in a community in the California desert, I'd help with the searches for downed pilots.

One time when I showed up at the airport to assist in a search, the constable told me we'd be looking for someone who had NOT filed a flight plan and was in a light tan airplane. Figuring that such a jackass deserved his fate, I turned around and went home.

Let's look at antennas. There was an excellent article in the last issue of Ham Radio about the Bobtail Curtain. It touched on something that we mentioned here some months back which deserved a more thorough investigation.

The question is: Have we been feeding the quarter-wave vertical in the wrong place all these years? Take a close look at what we do now. The maximum current point and main lobe is right at the ground. And right into the ground it goes. Strange, we couldn't think of a worse thing to do if we really tried!

Why not feed it at the top? Testing this out would be an interesting project. It does amuse me to hear people say, "I like to experiment with antennas." And they go out and hang up another plain old garden variety inverted-V.

Here's something to experiment with: a vertical dipole, center-fed, the bottom a quarter-wavelength above ground. The feedline should be perpendicular to the antenna for at least a quarter wavelength. Such an antenna will give you a lower angle of radiation than a dipole one wavelength above ground. On 10 metres the structure would be about 24½ feet long. on 15 metres, 33 feet long, and on 20 metres, 49 feet long. Those in the know, know that angle of radiation is more important than gain.

Another antenna not receiving its fair share of work is the horizontal loop. It looks like a one-element quad tipped over flat. It is very good on 40 and 80 for regional contacts. Such an antenna can be strung around the yard in practically any manner. The effect is that the radiation goes up and down — good for a many-state area but poor for DX. The dimensions to use are for a full-wavelength, and then tweak.

Contrary to popular opinion, a full wavelength loop does not have to be a perfect square or triangle; just do the best you can.

Some people are finding that the Delta Loop can be height-sensitive with the higher altitude not always the best.

Now a special present for those who did read my column down to here. Some antenna work in Europe is indicating that there are better shapes for the loop elements of the cubical quad. One modification is to turn the square into a long rectangle with the dimensions being 3 on the vertical to 1 on the horizontal. Or, put another way, the top and bottom horizontal wires are ⅛-wavelength each, and the two vertical wires are ⅜-wavelength each. Remember that a one-wavelength loop is actually longer than the free space figure for one wavelength at a particular frequency.

When comparing the rectangle loop to the square loop, you should see a bit over 2dB gain. Matching may be a bit trickier, though. What you might try is a 2-metre quad using the rectangle loop. For 147 MHz, a loop of 80 inches is a good starting point. The reflector should be about 85 inches and the director about 75 inches. You can pump some energy from your hand-held into this array and observe the results on a field-strength meter. Testing a new idea at 2 metres and then enlarging the dimensions on a ratio for another band such as 10 or 15 is called "modeling." Be aware that at 2 metres different sizes of wire can mean a different resonant frequency — start with #12 or #10 wire.

The spacing between the driven element and the director starting point is 15⅜ inches. Between the driven element and the reflector, start at 20½ inches. Juggling lengths of elements and the spacing will affect gain, bandwidth and front-to-back ratio.

Feeding an antenna with open wire and a tuner makes life a lot easier.

If you should do any actual "experimenting" along the above lines, (or on anything else), write in and tell us what you found.

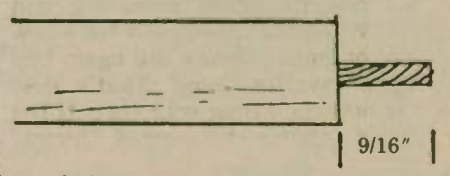
Also, if you have any antenna questions, send them in and I'll answer them here. And when you read in the ham magazines about someone loading up something that looks like an aluminium Christmas tree and they say it works almost as well as a full-size antenna, please know that's a bunch of rot.

(Lady Lil goes by her covert monicker so as to not have her sage wisdom challenged at gatherings by the less-than-bright who think that the volt was named after Voltaire.) □

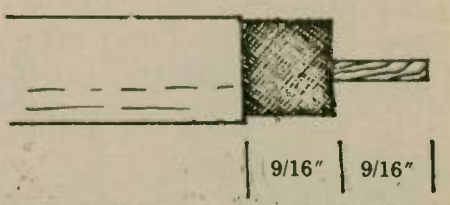
Technical corner

Don Du Kate, KA9GTQ

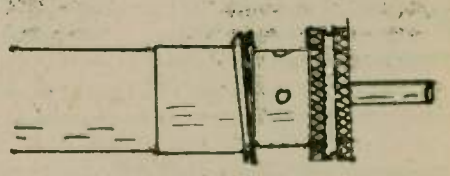
This is the proper way to install connectors on RG-8/U coax, so keep in mind as you solder connectors on your coax that a neat job usually is a good job.



Cut end of coax with sharp knife as illustrated, being careful not to nick or cut center wire.



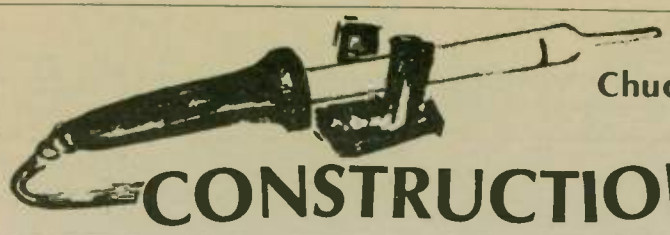
Cut back rubber cover as illustrated, with sharp knife, being careful not to cut braid.



Very carefully screw PL-259 onto coax until coax bottoms in connector. Solder all four holes until solder flows into holes. Solder tip and cool.

Use 100-150 watt solder gun with well-tinned tip that is clean. To cool, you may dip into M.E.K., metholene chloride or other non-flammable solvents.

— Indianapolis Repeater Assn., IN □



CONSTRUCTION

Chuck Clark, K4ZN
Assistant Director
Roanoke Division, ARRL

Teletype terminal

Teletype is a trademark, so maybe this should have been entitled teleprinter terminal or something similar. But since just about all the machines used by amateurs are Teletypes, the caption can stand as it is. A Kleinschmidt machine works the same as a Teletype, however, so this terminal will work with any of them. It will also work with the new breed of machines, the computer-based devices, that are replacing the old work horses, as long as it is not asked to operate too fast.

Teletype machines used the Baudot code, where each character is represented by five current pulses sandwiched in between a start and a stop pulse. These pulses are called mark and space — mark when the keyboard contacts are closed, space when they are open. The keyboard could be used to key a CW transmitter, but better performance can be had by causing it to shift the transmitter frequency. Standard frequency shifts are 850 and 170 hertz, 850 being the older standard, 170 the one most widely used today. The higher frequency is the mark frequency. On VHF, a modulating audio frequency is used, with 2295 hertz used for space and 2125 hertz for mark.

Some kind of interface is needed to convert the current pulses into something that a radio transmitter can handle, and to change the receiver output into current pulses to operate the printer. Many designs have appeared in amateur literature, and you can purchase them ready-made. They range from the elaborate through the complicated to the sophisticated. The terminal described here fits in no such category; it is an attempt to do the job with the minimum of parts and as simply as possible. Obviously it won't do what the fancy terminals can; when conditions are marginal, it won't make copy where a more sophisticated design would have no trouble. After all, if the simple design worked as well, nobody would build the fancy ones. But when conditions are good, and in particular when using audio-frequency-shift keying (AFSK) on VHF, it should perform as well as any.

A word of caution

A simple way to generate frequency-shift keying (FSK) on the high frequencies is to feed the output of an AFSK terminal such as this into the microphone input of a single sideband transmitter. It will work with just about any transmitter, and is certainly a simple and easy way to do it. You use the lower sideband. But there's one catch. While you can modulate any transmitter in this way so that the signal can be copied, you can generate spurious signals in many instances, and the FCC has issued warnings to that effect.

If the audio is not clean, it will contain harmonics, and these harmonics can be radiated as additional sidebands. Sometimes the unwanted sideband is not sufficiently suppressed and signals appear about 4 kHz above the desired signal; and the carrier may not be properly balanced out. In some instances, the carrier is balanced out when there is no modulation, but as soon as modulation is added, the carrier balance is upset. These faults are minor when the transmitter is used for voice operation, but can result in an illegal signal if frequency-shift keying is produced in this way.

A simple way to test is to sample some of the RF going to the antenna, rectify it with a diode, and listen to the output with headphones. A clean signal will be unmodulated. If you hear any tones, spurious signals are going out on the air. You can get an estimate of their strength by unbalancing the carrier slightly and noting the increase in amplitude of the tones you hear. You can also check the output with an oscilloscope. A proper FSK signal will be perfectly flat. Any ripple at an audio frequency indicates the presence of spurious signals.

The circuit

A Teletype is really two machines in one, driven by a single motor — the keyboard and the printer. So this terminal is really two units in one — one unit to interface between the keyboard and the transmitter, the other between the receiver and the printer. The transmit section converts the opening and closing of the keyboard contacts into 2125 and 2295 hertz audio tones, and the receiver's output tones are converted into DC pulses to work the printer in the other section.

Q3, which can be any NPN transistor that can operate at the voltage, is the oscillator. L3, a 44 millihenry toroid, and C3 form the frequency-determining circuit. C4 is switched in to lower the frequency for a mark pulse. One could simply put C4 in series with the keyboard contacts so that it would be in the circuit when the contacts are closed, out of the circuit when they are open. But to do so would be to generate interference-causing clicks. One Russian woodpecker is enough.

When the contacts open, C4 would remain charged to whatever voltage it happened to be holding at the instant. When the contacts next closed, it would in all probability not be at the same voltage as the rest of the circuit, giving a bad click as it adjusted its charge.

To minimize clicks, the capacitor remains in circuit at all times. Frequency is shifted by switching R2 in and out of the circuit by the keyboard contacts. R2 can be adjusted to give the correct shift. R1 is also adjustable and is used to set the correct mark frequency. To adjust, close the keyboard contacts (a Teletype will normally keep its contacts closed when not operating). Set R1 so that the frequency is 2125 hertz. Then open the keyboard circuit and adjust R2 to give 2295 hertz. You can use a frequency counter, of course, but you might also be able to zero-beat it with another amateur's AFSK terminal.

Using a variable resistor to tune an LC circuit is not commonly done, but it works. Yes, it does introduce losses and reduce the circuit Q, but when it is done in this way and the frequency excursion is small, it is acceptable.

Figure 2 shows how a resistor and capacitor can be connected in series and be equivalent to another value of resistor and capacitor connected in parallel. As a result, it is possible to tune a circuit that has fixed capacitance and inductance by putting a variable resistor in series with the capacitor.

To find the required resistor, using the formula in *Figure 2*, first determine the capacitance you need to tune the circuit, determine its reactance and call it Xp. Xs will be the capacitor you are using, or rather its reactance. Multiply Xs by Xp, and find the square of the magnitude of the impedance of the resistor and capacitor combination (either series or parallel). Subtract the square of the reactance Xs, and the remainder is the square of the series resistance Rs. R1 came out to 1120 ohms, and R1 plus R2 was 4920 ohms.

As a final check, divide the square of the impedance Z by the value of Rs. This will give you Rp, which should be several times the reactance of the inductor for good Q. In this case, it came out as follows:

	Mark	Space
Frequency	2125	2295
Cp	.025	.01
Cs	.03	.03
Xp	3000	6940
Xs	2500	2313
Z squared	7,500,000	16,050,000
Rs	1120	4920
Rp	6700	4900
L3 reactance	587	634
Q	11.4	7.7

The three inductors are 44 millihenry toroids, available from a number of suppliers. For L1, the two windings are connected in parallel giving 11 millihenries; for the others, the windings are in series.

Q1 is any PNP transistor, Q2 any NPN transistor, both capable of operating at the circuit voltage. Only audio frequencies are involved, so any type is suitable. Q2 is a VN67AF VMOS transistor, available from any Radio Shack store.

L1 and C1 form a trap to reduce 2295 hertz energy at rectifier CR1. L2 and C2

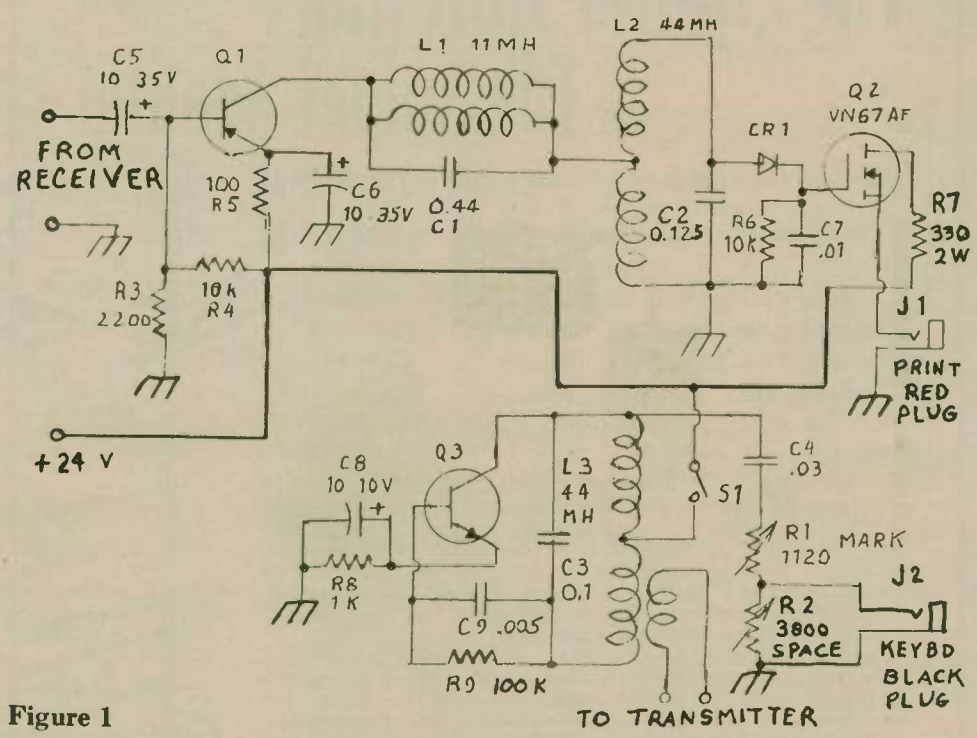


Figure 1

are tuned to 2125 hertz. When a 2125 hertz signal is present, it is rectified by CR1, which can be any rectifier diode, and applied to the gate of Q2. Q2 conducts only when a positive voltage is applied to its gate, and when it conducts, the current operates the selector magnet in the printer.

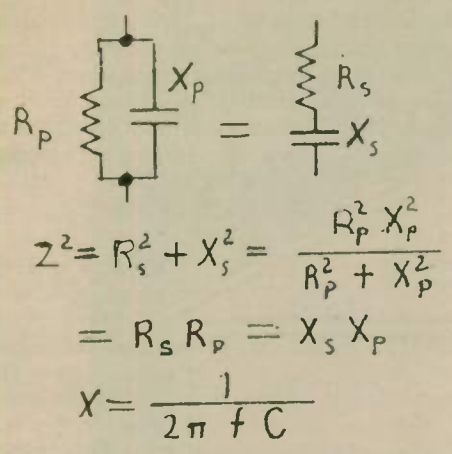


Figure 2

The magnet has a resistance of 50 ohms and requires 60 milliamperes for operation; hence, only 3 volts are required. But the inductance of the magnet would cause it to operate too slowly if only 3 volts were applied. Instead, a higher voltage is used, and the current is limited by R7.

In general, the values of the parts in *Figure 1* are not critical, except for the inductors and capacitors in the tuned circuits. The toroid inductors are usually quite close to their rated value, but capacitors in the sizes indicated may often be off by a factor of 50 percent or more, a capacitor marked 0.1 microfarad could be 0.15 for example.

It will be necessary to assemble the capacitors by connecting several in parallel in most cases, unless you just happen to be lucky and find one close enough. You can measure the capacitance with any instrument such as a bridge or capacitance meter, if you have access to one, or you can find the proper value by trial.

You could use a small capacitor with an adjustable resistor in series, as is shown in the keying circuit C4-R1-R2, but you risk reducing the Q of the tuned circuit and its ability to separate the two frequencies. Small shifts in frequency can also be obtained by removing turns in the toroids, about 3 hertz per turn.

The output link on L3 is a winding of about 40 turns over the top of the other winding on the toroid. Cut a piece of wire about 6 to 7 feet (2 meters) in length and you will have a suitable coil. You should be able to feed the output back to the input and operate the printer by the keyboard if everything is working properly.

Check the tuning of L1 and L2 by feeding a 2295 or 2125 hertz signal into the input and adjusting the respective tuned circuit for maximum voltage. For operation at HF, you could install two voltmeters permanently across L1 and L2 and use them as tuning indicators for adjusting your receiver.

Identification

Some may wonder that no provision is made for keying the transmitter manually for the required identification in the International Morse Code. None is provided, because it is better to use the Teletype itself to generate the identification. Manually sent code often causes the printer at the receiving station to run wild, as what is sent makes no sense to a Teletype. Instead, use the *blank* key for a dit and the *letters* key for a dah, and the result will be quite readable signals in the International Code, while the Teletype will understand the signals as meaning just to sit there quietly and wait. □

Another one

William Johnson, W2ECE of Amherst, New York worked H. Don Wibel, K9ECE of Fort Wayne, Indiana — no skeds. □

24-hour quartz wall clock

MFJ introduces its new 24-hour quartz-controlled wall clock. Its huge 12" diameter face gives excellent visibility across a computer or radio room.

This new clock is quartz-controlled for accuracy to within 15 seconds a month. A sweep second hand makes precise reading easy.

A single "AA" battery provides over one-year operation, immunity from power line failure and eliminates a power cord. The battery is not included.

An attractive high-impact, brown plastic case, with glass front makes this 24-hour clock a handsome addition to any room.

MFJ provides a 30-day money back trial period. If you are not satisfied, you may return it for a full refund (less shipping). MFJ also provides a one-year limited warranty.

The MFJ-105 clock is available from MFJ Enterprises, Inc. for $49.95 plus $4 shipping and handling.

To order, call toll free 1-800-647-1800 and charge it to your VISA or MasterCard account or mail order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. □

30-meter mobile

A new resonator has been added to the long popular line of Hustler HF Mobile antennas.

Model RM-30, is designed for operation in the newly allocated 10.100 to 10.150 MHz band when used with a MO-1 or MO-2 fold-over mast.

VSWR at resonance is 1.15:1 (50 kHz under 2:1) and power handling capability is 250 watts.

For more information on this or other Hustler products, see your local dealer or write, Hustler, Inc., 3275 North B Ave., Kissimmee, FL 32741. □

30-meter addition

A new modification kit is now available to upgrade Hustler's popular 4-BTV/5-BTV trap verticals to cover the newly allocated 30-meter band.

Designated model 30-MTK, the kit consists of a high-Q trap and two aluminum tube sections with necessary hardware. This trap kit simply replaces the 56" upper tube assembly on the 4-BTV/5-BTV. The addition of this kit will not degrade performance on any other band.

List price on the 30-MTK is $59.95. For more information, contact your local dealer or write Hustler, Inc., 3275 North B Ave., Kissimmee, FL 32741. □

RTTY/CW Computer Interface

The new MFJ-1220 RTTY/CW Computer Interface is a terminal unit that provides TTL/CMOS and RS-232 levels for computer interfacing.

Unlike phase-lock loop demodulators, this is an optimum design using individually tuned active bandpass filters. It has separate mark and space channel filters, CW filter and post detection low-pass filter for excellent weak signal and high interface RTTY/CW performance.

It takes received RTTY/CW audio from your transceiver, demodulates it and provides TTL/CMOS and RS-232 levels for interfacing with nearly any computer. A program (not included) is used to provide RTTY/CW text.

For RTTY transmission, your computer drives the AFSK generator to provide FSK transmission using the microphone or phone patch input of your SSB transmitter, or it can

directly key the FSK input of your transmitter.

For CW transmission, your computer drives the high voltage keying currents of the MFJ-1220 which then provides grid block or direct keying for your transmitter.

The RTTY/CW Interface transmits and receives all standard RTTY shifts of 170, 425 and 850 Hz to cover all amateur, commercial and military traffic to over 100 wpm. It uses the standard space tone of 2125 Hz and marks tones of 2295, 2250, 2975 Hz.

Meter, mark and space LEDs aid in precision tuning. The mark and space LEDs also indicate mark and space transmissions. A normal/reverse switch reverses the polarity of the mark and space for receiving. A CW transmit LED provides visual indication of CW transmission. A sensitive autostart feature keeps noise from activating the computer or printer when there is no RTTY signal.

The MFJ-1220 operates on 12VDC or 110VAC with optional adapter, MFJ-1312, for $9.95. The cabinet is eggshell white with walnut grain and top. It measures 10" × 2" × 5".

MFJ provides a 30-day money back trial period. If you are not satisfied, you may return it within 30 days for a full refund (less shipping). MFJ also provides a one-year unconditional guarantee.

The MFJ-1220 RTTY/CW Computer Interface is available from MFJ Enterprises, Inc. for $179.95 plus $4 for shipping and handling.

To order, call toll free 1-800-647-1800 and charge it to your VISA or MasterCard account or mail your order to MFJ Enterprises, Inc., P.O. Box 494, Mississippi State, MS 39762. □

HF transceiver

The TS-430S — a recent addition to Kenwood's line of high frequency transceivers — is an all solid-state SSB, CW and AM transceiver, with FM optional. Designed to cover the 160-10 meter amateur bands, including the new WARC bands, it also incorporates a 150 kHz-30 MHz general coverage receiver having an exceptionally wide dynamic range.

Other features include dual digital VFOs, eight memories, memory scan, programmable band scan, fluorescent tube digital display, all-mode squelch, VOX, speech processor, IF shift, Notch, and a NARROW-WIDE filter selector switch for use with various optional filter combinations.

The TS-430S carries a factory-suggested retail price of $899.95. For additional information, contact your local Kenwood Amateur Radio dealer, or write to: Trio-Kenwood Communications, 1111 West Walnut St., Compton, CA 90220. □

AUTOTENNA

The AUTOTENNA is a *new* but *proven* design — specially developed for use in critical government service; this design has been in service on over 3 million miles. It has proven efficient and performed well in every installation. This design was adapted for amateur use and represents the state of the art in mobile antennas in terms of design, construction, performance and ease of use. No other antenna available to the amateur today has a record of tested performance that can compare.

The AUTOTENNA is the only 5-band truly *automatic* antenna available for mobile applications. You will never again have to stop on the freeway to switch a resonator or lean over the side of your boat to change a whip. There are no complicated mechanical or hydraulic switching systems required to change bands.

The AUTOTENNA is *simultaneously* resonant on all five bands — 10, 15, 20, 40 and 80. Initial tune-up is accomplished easily with an SWR bridge on line, and adjustments are made to the variable inductors at the base of the efficient center loading coil. Simple tune-up instructions are furnished.

The AUTOTENNA has a large efficient high Q center loading coil. Center loading of a mobile antenna produces more real radiation than other designs. Performance of the AUTOTENNA is rated as excellent by the numerous users with installations on boats, cars, trucks, vans, and other recreational vehicles including mobile homes. The bandwidth and SWR is typical for an antenna with an efficient, high Q center loading coil. On the lower frequencies, an antenna tuner may be desirable with solid-state rigs.

The AUTOTENNA features the finest stainless steel, corrosion-resistant hardware and chrome-plated mast. Because the strength and durability of the components are optimized by the design of the AUTOTENNA (it has no troublesome moving parts or screw-on joints), it is particularly suitable for marine use or for any installation that requires a strong, sleek, weather-resistant antenna. Overall length is 8 feet, lower mast is 30 inches. Includes a stainless steel QuikDisconnect on top for easy garaging.

Price is $159.95. For more information, write to Gene Hansen, 1000 Hansen Rd., Corrales, NM 87048; (505) 898-3251. □

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

Oregon Convention

The 1983 Oregon State Ham Convention, co-sponsored by the North Coast Repeater Association and the Oregon Tualatin Valley Amateur Radio Club will be held at the Seaside Convention Center in Seaside, Oregon, Friday, 3 June through Sunday, 5 June 1983. Hours are 4:00 p.m. to 9:00 p.m. Friday; 8:00 a.m. to 9:30 p.m. Saturday; and 8:00 a.m. to 2:00 p.m. Sunday. Preregistration is $5 per single and $7 per couple; $2 for teens with parents. Children 12 and under free. Those who preregister before 15 April will receive a special ticket for a drawing for an ICOM 2AT, 3AT or 4AT, plus extra tickets for main prize drawing. Registrations between 16 April and 15 May will receive one extra ticket for main prize drawing.

Seminars: Packet Radio, DXpedition, FCC rules and regulations, National Traffic System, TV Cable Systems and "living with them," Alternate Power, Care and Feeding of NICADs, Basic Antennas, and many others. Banquet speaker will be Richard Underwood of NASA. Master of Ceremonies will be the Honorable Judge Greg Milnes, W7AGQ. Special ARRL guests are Dale Clift, WA3NLO and Larry Price, W4RA, Vice President. Banquet cost is $13.50 per person.

Talk-in on 146.52 (simplex) and local repeater 145.45 (-600).

For more information and/or reservations, write to: Doc McLendon, W7GWC, P.O. Box 920, Seaside, OR 97132. □

First International VHF/UHF Conference

1983 marks the first International VHF/UHF Conference to be held as part of the Dayton Hamvention in an effort to respond to the needs of the ever-growing ranks of VHF/UHF enthusiasts. This was prompted in part by the lack of a major VHF conference in the Midwest, and as a means to combine such a conference with the largest Amateur Radio convention in the world to bring together VHFers from all walks of life.

Activities span all three days, from 29 April through 1 May, and include technical talks and forums with recognized experts, noise figure and antenna gain measuring contests (144 MHz-2304 MHz) with valuable prizes for winners in the homebrew categories, and a hospitality suite get-together with refreshments. Other Hamvention features include exhibits from the leading manufacturers and distributors, and a flea market you wouldn't believe.

For further information, or to advise us of participation in the noise figure and antenna contests, please contact: Jim Stitt, WA8ONQ, 311 N. Marshall Rd., Middletown, OH 45042; (513) 475-4444 Bus., (513) 863-0820 Home. □

Midwest ARRL Convention

You are invited to attend the 1983 ARRL Midwest Convention to be held 15-17 April at the Marina Inn, South Sioux City, Nebraska — directly across the river from Sioux City, Iowa. This was the site of the 1974 Midwest Convention, as well as the site of the annual 'Hamboree' series of hamfests. The 3900 Club is the sponsor; the dates are Friday, Saturday and Sunday. More correctly, setup time is Friday afternoon. The exhibitors, exhibits and flea market will be open for a preview shortly after dinner. We are planning something for after dinner for everyone.

We are fortunate to be having from ARRL Headquarters new president Vic Clark, W4KFC as well as Dick Palm, K1CE, one of the bright young stars of the HQ staff. Paul Grauer, W0FIR, Midwest Division Director as well as Todd Olson, K0TO, Dakota Division Director will be with us. With us also will be Roy Neal, K6DUE of NBC news. He is probably best known for his coverage of the space flight as well as other NBC news events of importance. We are fortunate in getting Roy, as he does not usually attend amateur conventions, but he was #1 at the most recent Dayton Convention. Leo Meyerson, W0GFQ — of WRL fame, a favorite of many past Midwest Conventions — will be here to entertain us at the "Attitude Adjustment Hour" just before the Saturday night banquet.

The Section Managers of both divisions will be here; the HANDI-HAMS represented by Bruce Humphrys and many HANDI-HAM members; QCWA breakfast; satellite demonstrations; 0QSL Bureau; full line distributors; antenna specialists; computer specialists; caps and T shirts; name plates and rubber stamps, etc. As of this writing, the exhibit space is 68 percent filled already; 66 tables for flea market, all inside, with easy first floor access. Flea market space is about 35 percent gone at this writing. Anyone interested in flea market table space should contact Al Smith, W0PEX, 3529 Douglas St., Sioux City, IA 51104. Flea market tables are $5 for all three days, $4 for Saturday and Sunday.

Prospective exhibitors should contact Jim Boise, KA0GZY, 22 La Salle St., Sioux City, IA 51104. Convention costs are $6 for the three days, Saturday banquet costs for advance registration are $10; at the door $12. We will make and confirm motel reservations for you. Any requests for further detailed information should be directed to General Chairman Dick Pitner, W0FZO, 2931 Pierce St., Sioux City, IA 51105. Convention reservations and motel reservations may be made with Jerry Smith, W0DUN, Box 14, Akron, IA 51101. Single rates at the Marina are $30, doubles $34; two beds in every room.

If you are interested in a less expensive motel, let us know and we will send you the information. We will open the enclosed exhibitor-flea market area about 6:00 or 7:00 p.m. Friday for the early attenders to have a preview and to encourage your early attendance. □

Georgia

The Kennehoochee Hamfest will be held Sunday, 17 April, 8:00 a.m. to 4:00 p.m., at the Marietta, Georgia civic center. For more information, write to publicity chairman Bob Greene, WB4LXF, 1901 Hickory Grove Rd. Acworth, GA 30101. □

Massachusetts

The Wellesley Amateur Radio Society is conducting its annual auction on Saturday, 16 April, at the First Congregational Church of Wellesley Hills, 207 Washington St., Wellesley Hill, Massachusetts, located at the intersection of Routes 9 and 16. Doors open at 9:00 a.m. auction starts at 10:00 a.m. (15 percent commission, $1 minimum, $30 maximum).

Talk-in on 04/64; 63/03; and 52.

Contact: Kevin P. Kelly, WA1YHV, 7 Lawnwood Pl., Charlestown, MA 02129. □

Michigan

The South Eastern Michigan Amateur Radio Association (SEMARA) will hold its 25th annual hamfest swap and shop, 10 April, 8:00 a.m. to 3:00 p.m. at Grosse Pointe North High School. The school is located at Vernier Road between Mack and Lakeshore.

There will be ample parking and plenty of good food. Door prizes and cash prizes will be given, and a grand prize drawing will be held.

Talk-in on SEMARA repeater, 147.75/.15.

For further information, please send SASE to: SEMARA Swap and Shop, P.O. Box 646 St. Clair Shores, MI 48083; or phone Ray Ninness, WD8KXN at 313-777-0119. □

Minnesota

The Arrowhead Radio Amateur Club will hold its annual swapfest on Saturday, 7 May 1983 at the Holiday Inn, 207 West Superior St., in downtown Duluth. Admission will be $2.50 in advance or $3 at the door. Door prizes will include an ICOM 25A. A raffle will also be held, and the grand prize will be a trip for two to Las Vegas or the cash equivalent. Raffle ticket donation is $1. Reserved 4-foot tables are

$3.50 in advance or $4 at the door. Doors will be open from 10:00 a.m. to 3:00 p.m. There will be plenty of food, free parking in the ramp, and hourly prize drawings. (Even an enclosed shopping mall for the XYL!)

Talk-in will be on 34/94.

For more information, advanced reservations, room discount information or raffle tickets, send an SASE to Jerry Frederick, N0BNG, 1127-104th Ave. West, Duluth, MN 55808. □

New York

Suffolk County Radio Club All Indoor Flea Market will be held Sunday, 1 May, 8:00 a.m. to 3:00 p.m. at Republic Lodge No. 1987, 585 Broadhollow Road (Route 110), Melville, Long Island, New York.

There will be free parking, door prizes and refreshments. General admission is $2 (wives and children under 12 free). Sellers' tables are $7 (includes one admission).

Talk-in on 144.61/145.21 and 146.52.

For additional information contact: Richard Tygar, AC2P. 516-643-5956 evenings. □

North Carolina

The Raleigh Amateur Radio Society (RARS) will hold its 11th Annual Hamfest at the Crabtree Valley Mall, U.S. 70 West, on Sunday, 17 April. Admission is $4 with no extra charge for tailgating in the covered flea market. Tables will be available for rent. CW contest, homebrew contest and special interest meetings will be featured along with prizes galore.

Talk-in on 04/64 and 28/88.

For info, write to RARS Hamfest, P.O. Box 17124, Raleigh, NC 27603 or (919) 779-0266. □

Pennsylvania

The 1st Annual Southern Alleghenies Hamfest will take place 10 April, 8:00 a.m. to 5:00 p.m., at the Bedford County Fairgrounds, located near Bedford at the intersection of Routes 30 and 220 (bypass). This location is close to the Bedford exit of the Pennsylvania Turnpike. The sponsoring organizations are the Bedford Amateur Radio Club (ARC); Altoona (Horseshoe) ARC; Cumberland, Maryland ARC; Somerset ARC; and the Blue Knob Repeater Association.

Admission will be $3. There will be a large heated building and inside tables available for $5. Computer demonstration, prizes, food, dealers, displays, ARRL booth and more.

Talk-in on Bedford repeater 145.49 and 146.52 simplex.

For more information, contact Tom Gutshall, W3BZN at (814) 942-7334 or on the 147.75/15 Blue Knob repeater. □

South Carolina

The Greenville Hamfest sponsored by the Blue Ridge Amateur Radio Society will be held at the American Legion Fairgrounds, White Horse Road, a half-mile north of I-85 in Greenville, South Carolina, Saturday, 30 April and Sunday, 1 May. Admission will be $3.

Talk-in on 146.01/61 and 223.46/224.06.

For further information, write Hamfest Chairman, Phil Mullins, WD4KTG, P.O. Box 99, Simpsonville, SC 29681. For advance sales, write Sue Chism, Rt. 6, 203 Lanewood Dr., Greenville, SC 29607. □

Tennessee

The Oak Ridge Amateur Radio Club invites you to attend the 5th Annual Oak Ridge Hamfest at the Civic Center in Oak Ridge, Tennessee on 16 April. Doors open 8:00 a.m. to 5:00 p.m. Large indoor dealer display, electronics flea market, forums, fabulous prizes, concessions and computers. Within easy walking distance you will find the city flea market, museums, parks, shopping and restaurants. Admission $2; accompanied children free.

Talk-in on 146.28-.88 (147.72-.12 backup) and on 146.52 simplex.

For more information, send SASE to: ORARC Hamfest, P.O. Box 291, Oak Ridge, TN 37830. □

SP-DX Contest

The PZK (Polski Zwiazek Krotofalowcow) has the honour to invite the radio amateurs and SWLs all over the world to participate in the SP-DX Contest, which will be held on the first full weekend of April (2-3 April 1983).

The object of the contest is to establish as many contacts as possible between radio amateurs around the world and radio amateurs in Poland.

Rules

Periods: CW — Saturday, 2 April, 1500 UTC to Sunday, 3 April, 2400 UTC

Bands: 3.5, 7, 14, 21, 28 MHz

Contest call: "CQ SP" for foreign stations; "CQ TEST" for SP (SQ, SR, 3Z) stations

Exchanges: Foreign stations will transmit a six-figure number, each consisting of the RST report plus serial number (599001). Polish station will transmit a three-figure number, representing the RST report plus two letters denoting the WOJEWODZTWO abbreviation for example 599TA.

Points: Each correct QSO with SP station on each band counts 3 points

Multiplier: Each different WOJEWODZTWO (province) denoted by a two-letter abbreviation counts for one multiplier, but only *ONCE* independently of the band. The maximal multiplier is 49.

Final score: The sum of QSO points of all bands multiplied by sum of different WOJEWODZTWOs give the final score.

Operating class: SOMB — single operator multiband; SOSB — single operator single band; MOMB — multi-operators or club stations multiband one transmitter; SWL — singer operator listeners. Foreign SWLs have to receive the call sign of the Polish station, the call sign of its correspondent and the code sent by the Polish station. Each SP station may be logged only per band and count 3 points each. Other rules are similar to those foreign transmitting stations.

Logs: Logs must contain date time in UTC; exchanges indicating multipliers and points.

A summary sheet added should contain all scoring information: operating class, contestant's name and address, and a signed declaration that all contest rules and regulations for Amateur Radio in the country of operation have been observed. Log must be checked for duplicate contacts. A multiplier checklist should be enclosed.

Certificates: Special certificates will be awarded to the top scores in each operating class and mode in every participating country, continent or call area (Australia, Japan, USA, USSR). Each of the PZK awards may be obtained if special application added. All QSOs indicated in any award application may be made during one part of SP-DX Contest.

Disqualification: Violation of the rules or unsportsmanlike conduct or taking credit for incorrect QSO multiplier, or duplicate contacts in excess of 3 percent of the total made will be deemed sufficient cause for disqualification. The decisions of the SP-DX Committee are final.

Deadline: All entries must be postmarked no later than 30 April. Logs should be sent to: Polski Zwiazek Krotofalowcow SP-DX Contest Committee, P.O. Box 320, 00-950 Warszawa, POLAND. □

Scavenger Hunt

The Triple States Radio Amateur Club is sponsoring an unusual contest called the TSRAC Scavenger Hunt Contest, scheduled for 23-24 April (0000Z, 23 April to 2359Z 24 April). This contest is based on the old-fashioned Scavenger Hunt where each person was given a list of items to find, and the person who found all or most was declared the winner.

Two trophies are to be awarded: one to the General Class or above licensee with the highest score, and one to the Novice or Technician Class operator with the highest score. Second and third place certificates will be awarded for both breakdowns of classification of operators. Modes of operation to be credited will be CW and phone.

The exchange will be normal QSOs or "CQ TSHT TEST," 20 kHz (±) above the bottom of any General or Novice band.

The contest is open to all amateurs. Entries are to be submitted to the contest chairman: David M. Kinney, KC8YR, RD #1, Mingo Jct., OH 43938. Mark your class of license on entry submission. Deadline: 25 May.

The scoring is the unique part of the contest, and the idea is to find and make contacts in specified areas as below:

- Make contact with seven of the 10 call areas. 10 pts.
  - a) 1 point for duplicate area contact
  - b) 15 points bonus IF you make contact with all 10 areas
- Make contact with one Canadian station. 5 pts.
  - a) 1 point for each additional contact
- Make contact with a 1×2 or 2×1 call sign. 5 pts.
  - a) 1 point for each additional contact
- Make contact with a 2×2 U.S. call sign 5 pts.
  - a) 1 point for each additional contact
- Make contact with a 1×3 U.S. call sign. 5 pts.
  - a) 1 point for each additional contact
- Make contact with a 2×3 U.S. call sign. 5 pts.
  - a) 1 point for each additional contact.
- Make contact with one DX station other than Canada. 10 pts.
  - a) 2 points for each additional contact
- Make contact with one TSRAC member. 5 pts.
  - a) 2 points for each additional member contact
- Make one contact for each band 80-40-15-10 (except 20). 10 pts.
  - a) No extra points here
- Make contact with one YL. 15 pts.
  - a) 3 points for each additional contact

Bonus Points: 100 pts *IF* contestant scores on *all* 10 items. □

QRP ARCI Spring QSO Party

The QRP Amateur Radio Club International Spring QSO Party will be held 23-24 April (1200 UTC Saturday to 2400 UTC Sunday). Participants may operate a maximum of 24 hours.

Exchanges: Members give RS(T), state/province/country and QRP ARCI membership number. Non-members give RS(T), state/province/country and power *output*.

Stations may be worked once per band *and* mode for QSO multiplier credits. For example, the same station may be worked on 40-meter CW and sideband for credit. Each member contact counts 5 points, regardless of location. Each non-member U.S. or Canadian contact counts 2 points. Non-member stations other than W/VE count 4 points.

Multipliers: 4 to 5 watts output CW or 8 to 10 watts output PEP × 2. 3 to 4 watts output CW or 6 to 8 watts output PEP × 4. 2 to 3 watts output CW or 4 to 6 watts output PEP ×6. 1 to 2 watts output CW or 2 to 4 watts output PEP × 8. Less than 1 watt output CW or 2 watts output PEP × 10. More than 5 watts output CW or 10 watts output PEP will be counted as check logs only.

Bonus multipliers: If 100 percent natural power (solar, wind, etc.) with no storage, × 2. If 100 percent battery power, × 1.5.

Scoring: QSO points (total all bands) × total number of states/provinces/countries (a s/p/c may be worked on more than one band) × power multipler × bonus multiplier (if any) = claimed score. Send a large SASE or IRCs to contest chairman for scoring summary sheet in advance of contest.

Suggested frequencies: CW — 1810, 3560, 7040, 14060, 21060, 28060, and 50360 kHz; SSB — 1810, 3985, 7285, 14285, 21385, 28885, and 50385 kHz; Novices and Technicians — 3710, 7110, 21110 and 28110. No 30-meter (10.1 MHz) contacts will be counted.

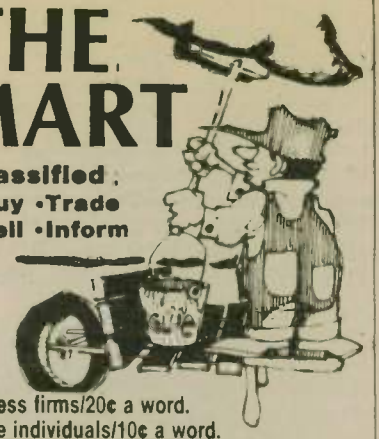
Calling method: CQ CQ QRP DE (call sign) or CQ QRP CONTEST FROM etc.

Awards: Certificates to highest-scoring station in each state/province/country with two or more entries. All entries are automatically considered for Triple Crowns of QRP Award.

Logs: Suggest use of separate log sheets for each band for ease of scoring. Send full log data plus separate worksheet showing details and time(s) off the air. No log copies will be returned. All entrants desiring results and scores please include a large SASE with one ounce of U.S. postage or IRCs. It is a condition of entry that the decision of the QRP ARCI contest chairman is final in case of dispute.

Deadline: Logs must be received by 21 May 1983. Logs received after that date or missing information will be used as check logs. Send all material to: QRP ARCI Contest Chairman William W. Dickerson, WA2JOC, 230 Mill St., Danville, PA 17821. □

THE MART



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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.

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SELL: Heathkit HW-101, CW filter, pwr supply, excellent cond. — $315.00. Paul, WA2HYY, 85-17 65th Dr., Rego Park, NY 11374, 212-897-7656.

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SOLAR CELLS: .4V, 4" diameter, 1.5 amps — $5.25 each, 10 for $50; 1.8 to 2 amps, $8.75 each, 10 for $85.00 plus shipping. NØEJN, Kenneth Foster, 1742 Dowd, St. Louis, MO 63136. 314/522-6667.

OLD RADIO BOOKS, magazines, pamphlets. QST, CQ, RSGB's, license manuals, callbooks, handbooks, and more. Some as old as 1925. Send SASE for list to P. Garvin, N8CJD, 2979 Limerick Road, Clyde, OH 43410.

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