

The Worldradio News

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50¢

W2OVC fighting \$1,000,000 anti-ham lawsuit



Leonard Mendel, W2OVC

by Armond Noble, WB6AUH

Leonard Mendel, W2OVC, of Yorktown Heights, New York, has been sued by a group of his neighbors. They are asking one million dollars in damages. The suit, filed at the Supreme Court of the State of New York, Westchester County, charges "Nuisance; malicious and unreasonable interference with T.V., radio and/or telephone receptions; invasion of privacy, trespass; mental anguish and distress; violation and deprivation of legal and constitutional rights."

Bringing the suit are two married couples and three individuals. They claim that Mendel's station antenna "makes for a private and/or public nuisance; more particularly presents an imminent danger and hazard to the plaintiffs residing in the immediate area of this defendant and his monstrous and horrendous, overwhelming, overpowering and over towering antenna tower erections." (as quoted from the suit).

Mendel's antenna is a 20 meter Yagi on a 17 foot boom. It is on a forty-three foot tower.

The suit also claims "The defendant broadcasts on a high powered frequency, at all hours of the day and night and in such a malicious and unreasonable manner as to cause interference, interruption, trespass and intrusion upon the lawfully intended reception by plaintiff's television and radio receivers."

Mendel's station consists of a commercially manufactured exciter and a commercially manufactured linear amplifier. He uses a low pass filter between the amplifier and the antenna as well as one between the exciter and linear. The station equipment also in-

cludes a monitorscope with which he observes his transmit envelope patterns. Mendel has also installed line filters in the AC lines to both the exciter and linear. The filters are to prevent RF energy from travelling through the power lines to other equipment. He also uses SWR bridges and power meters.

The plaintiffs have charged "unlawful and improper radio broadcasting by the defendant" and have further claimed that Mendel "acted at all times herein mentioned, maliciously and contemptuously of the law." The suit also claims "subterfuge and surreptitious activities by defendant".

Mendel is a retired New York City policeman, spending most of his service on the Emergency Squad in the Bronx. He has held an amateur license for 28 years.

Prior to the trial Mendel's defense attorneys have been examining the plaintiffs. A court reporter records the answers. For three days work the court charges \$500. The attorneys also required as a pre-trial retainer \$1,000. It is expected that the total legal fees, necessary to protect himself in this case, will be over \$3,000. Mendel now lives on his police pension.

The trial is expected to start in June, Mendel says his family is able to enjoy television in their home without any interference, during the times he is transmitting. He also denies all the charges by the plaintiffs and says his attitude has always been one of complete cooperation.

The amateur radio club in Mendel's area, The Harmonic Hill Radio League, has set up a separate bank account to accept donations which will be used to offer financial assistance to W2OVC. They feel that this is not just Mendel's struggle, but also a fight on behalf of all amateurs. Their address is Box 73, Katoah, NY 10536.

Needs Blood

Lee Kiff, K6PXT, a hemophiliac, had an operation on both legs on 22 April. He needs 300 bags of blood credited to his account at the Erwin Memorial Blood Bank in San Francisco. If you donate blood, please mail the white slip to Lee at 13345 Doolittle Dr., San Leandro, CA 94577 (de Warren Davis, K6PQL)

Amateurs aid in tornados

By Jim Weaver, WA8COA

At 5 p. m. John Dine, WA8DFD, activated a severe weather watch ham radio network.

Its function? To watch for severe weather and to report it to the Red Cross. In the past, watches had generally proved to be most uneventful operations.

This watch set up by Dine, however, proved to be far from routine. Fortunately for residents of tornado-stricken Butler, Hamilton and Warren Counties, it brought over 125 area radio amateurs to the ready. Dine is Hamilton County Emergency Coordinator of the Amateur Radio Emergency Corp. (AREC) and Communications Manager for the Queen City Emergency Net.

Soon after the weather watch net was activated, reports of tornado touchdowns were received. A squad of amateur radio-equipped vehicles took to the roads to verify reports and to estimate damage caused by actual strikes.

First visual verification of a touchdown was by Bob Craig, WB8RGZ, of Cincinnati. He literally found

himself in the midst of a strike near Longview Hospital at Paddock and Seymour Rds.

Fifteen minutes after Mason was devastated, Paul Hurm, WB8CLF, of Seven Mile, and Earl Campbell, WB8GMZ, of Hamilton, arrived at the scene. Butler County Amateur Radio Emergency Corps moved into neighboring Warren County when the homes of Warren County AREC Emergency Coordinator, Gene Hite, WB8DLJ, and his assistant were demolished or severely damaged. Hite, who had been operating in the weather watch until moments before the strike, had notified net members that a tornado was headed toward his home.

He then abruptly ceased transmitting.

Fortunately, Gene, his wife Barbara, WB8OCN, and their infant daughter, as well as neighbors Mike deRosa, WB8PBV, and family and Harold Jones, WB8AMI, were not injured - despite the damages to their homes.

Upon arriving in Mason, the hams set up an emergency generator at (Please turn to page 47)

Canadians save little girl

by Murray Lampert, VE3FXA

What may have been the most dramatic episode of amateur radio operation they will ever experience, had amateurs from all parts of Ontario (Canada) listening in awe.

When Dr. Ed Sheffman, VE3FTO of Nortown, returned home late Friday evening after attending a meeting he found a message to call Al D'Eon, VE3AND. From Ed he learned that Nortowners Gord Wells, VE3HCX, and XYL, Sandee, VE3HCY, were seeking emergency medical assistance on 3.775 MHz. Gord and Sandee are members of the Nortown ARC and presently are stationed with the Department of Indian Affairs in the village of Kashechewan in the far north of the Province. Gord's amateur radio station is the only link with the outside world from that area.

When Ed got on the air he found there was indeed a serious medical emergency. A small child had fallen off a dock in Kashechewan and hit her head on the ice, suffering grave injuries. The only available medical assistance in the small village was from two and a small amount of medicine. When they determined the young girl's symptoms were severe, a hematoma, pressure on the head and if not relieved very soon the girl would certainly

vince were calling hospitals to find one with a neuro-surgeon. Amateurs were also attempting to contact the Canadian Armed Forces to have a medical evacuation team flown into the village. Finally, it was announced that aircraft were being sent to evacuate the girl and would arrive at about 5:30 that morning (Saturday morning).

It had been determined through this extensive network of amateurs that the Sick Children's Hospital in Toronto was the best choice. The armed forces transported the girl to Toronto, where an awaiting helicopter rushed her to that hospital.

At the time of this writing the girl is resting well at Sick Children's Hospital and is expected to recover fully. The credit for saving this young child's life can only be credited to Gord and Sandee Wells and their prompt action in using Amateur Radio to summon aid. A great deal of credit is due the amateurs who took a direct part in this operation, including the emergency net controller, Andy Anderson, VE3CZA, of North Bay, R. Allard, VE3BWI of Timmins, A.W. Gladman, VE3DJY, VE3ACV, and of course we cannot forget the part taken by Dr. Ed Sheffman, VE3FTO.

They are a credit to the fraternity and indeed a credit to the Nortown ARC, Gord, Sandee and Ed. Our club is proud to have them as members.

(From "Nortopics" Toronto, Canada)

LU5HFI is saved by local hams



Fred Laun LU5HFI

by Gary Stilwell, W6NJU

Intervention by Argentine amateur radio operators may have been the factor that saved the life of American diplomat Fred Laun, W9SZR/LU5HFI.

Laun was kidnapped from his home in Unquillo, Argentina on April 12th. During the abduction he was shot, and his transmitter and receiver were taken by the kidnapers. A few days later a radio station received an anonymous call telling where Laun had been released. He was found wrapped in blankets with a bottle of blood plasma rigged to his body.

Laun was alive but with bullet wounds in the stomach and shoulder. He had also suffered a severe blow to the head. He was rushed to a clinic where his condition was described as "grave". He was then evacuated to the Gorgas Hospital in the Canal Zone.

Laun, an information officer with the U.S. State Department, has been an amateur radio operator for 22 years. He held the following calls; HI8XAL, HS3AL, HS5 ABD, XV4AL and was also an operator at XV5AC. He worked with Robert Daniel W6LCB, and Donald Riebhoff, K7CBZ to get Thailand removed from the FCC/ITU "banned list". He also worked with Riebhoff and John Lunsford W4EVG, to establish a legal XV5AC in Viet-Nam. Laun was an active participant in the ARRL Intruder Watch program.

He helped establish the reciprocal operating agreement between the United States and the Dominican Republic. He always joined the local radio societies in the countries where he operated. He participated in conventions and other amateur activities.

It is reported the Argentine amateurs reacted very strongly to news of his kidnapping by a guerrilla organization. Fragmentary reports indicate the amateurs saved Laun's life. Obviously, the full story will probably never be told.

Laun received his B.S. from the University of Wisconsin (Journalism and Political Science). For 20 years he has maintained schedules with Jack Siringier, W8AJW, of North Olmstead, Ohio. Siringier suggests that the world's ham operators send "get well" QSL cards to Laun at Room 12, Gorgas Hospital, Balboa Heights, Canal Zone.

JEAN PERKINS
415 COUTANT ST
FLUSHING

900059

MI 48433

The wheels were in motion... amateurs from across the pro-



FCC

AMATEUR RADIOCOMMUNICATION WITH PEOPLE'S REPUBLIC OF CHINA PROHIBITED

Both the People's Republic of China and the United States of America are signatories to the International Telecommunication Convention (Montreal, 1965) to which is annexed the International Radio Regulations. Article 41 of those Regulations does not provide for international amateur communications between two countries where at least one country involved does not allow for the amateur radio service, except as may be provided for by special arrangements between the administrations of the countries concerned. Furthermore, the Administration of the People's Republic of China is not known to allow for the amateur radio service, and there are no known related arrangements in this case.

Accordingly, with reference to Section 97.89 (a) (1) of its Rules, the Commission at this time cannot allow communications between its licensees and any station or stations situated in or over the territory of the People's Republic of China.

INTERNATIONAL AMATEUR RADIO COMMUNICATIONS

Information has been received by the Commission that the Khmer Republic's Ministry of Foreign Affairs informed the United States Embassy at Phnom-Pehn that amateur radio station XU1DX may conduct amateur radio communications with U.S. licensed amateur radio stations.

Accordingly, the commission has no objection to amateur radio stations licensed by the Commission conducting amateur radio communications with station XU1DX.

The Commission, by its Safety and Special Radio Services Bureau, took the following actions on April 12, 1974:

Ordered to show cause why the licenses should not be revoked for repeated violation of Section 308 (B) of the Communication Act of 1934:

James L. Summers, Baton Rouge, La., licensee of Amateur radio station WB5CIC (SS-540-74).

The Commission, by its Safety and Special Radio Services Bureau on April 24, 1974, acknowledged receipt of payment for monetary forfeitures incurred under Section 510 of the Communications Act by the following:

April 19 - Sherman F. Desper, Jr. Citrus Heights, Calif., operator of Amateur radio license W6VHB. Suspended the license for a period of six months for willful violation of Section 97.125 of the rules by causing interference to signals of other radio stations (SS-498-74)

April 24 - John Wood, Santa Ana, Calif., licensee of Amateur radio station WA6SEG. Ordered to show cause why the license should not be revoked for violation of Part 95 of the rules including willful and repeated violation of Section 97.125 by assembling and placing into operation unattended, covert transmitters, which radiated disruptive and interfering signals; and suspended his Advanced Class Amateur Operator's license for the remainder of the license term (SS-542-74). (Please turn to page 47)

identification

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ARRL

The ARRL Emergency Communications Advisory Committee is continuing its study of RACES which was initiated by FCC Docket 19723. Subpart F of the Rules and Regulations is being carefully studied. Committee members welcome comments from as many interested parties as possible. Correspondence can be directed to Committee Chairman Montie Cove. WA4-PBG, Committee members, Ellwood Halde- man, W3PST, Andy Clark, W4IYT, William Mixon, K5SVD, Arthur Smith, W6INI, Robert Klepper, W7IEU, Robert Dixon, W8ERD, Robert Hajek, W9QBH, Harry Legler, W0PB, H. H. Shephard, VE3DV, or to ARRL Headquarters for routing to committee members.

A recent Supreme Court case concerning some of the fees FCC charges to its licensees has cast doubt over the whole procedure. Accordingly, until further notice from the Commission, fees remain at present levels instead of advancing on May 1 as announced earlier. For amateurs, this means basic applications for new, renewed, modified and renewed or upgraded licenses continue at nine dollars, straight modifications are four dollars, duplicates are six, and special call sign requests for those eligible under section 97.5 remain at 25 dollars.

The annual ARRL Net Directory registration deadline is June 1. Please note that special forms are available for easy recording of required information by public service nets. An s.a.s.e. requesting the specific form to ARRL, 225 Main Street, Newington, Connecticut 06111 will bring the appropriate cards. Further details page 62 April QST.

From Onda Corta, the Mexican QST, comes word (thanks to Nash Williams, W6HCD,) that the LMRE is issuing a new award called the "Certificado Mexico." The rules for non-XE's are as follows:

1. You must have confirmations for communications with a total of 50 different Mexican stations. All contacts must be after January 1, 1957.
2. Included in the above must be confirmations with at least 15 different Mexican states, plus Mexico City, D. F.
3. All contacts must be with duly authorized amateur stations. Contacts with mobile stations (aeronautical, maritime, or land) are not permitted.
4. All confirmations must be for either CW or Phone, not mixed. The certificate is issued for each class of emission.
5. Send your cards, accompanied by a summary list and U.S. \$1.00 by certified or registered mail to:
L. M. R. E., A. C.
Apartado Postal 907
Mexico 1, D. F., Mexico

This does not appear to be an easy award to obtain, and so should be worthwhile, particularly in fostering goodwill through encouraging communications across the border. It may also be of particular interest to the QRP DXer, since distances are not that great from the U.S. to Mexico, and low power will be competitive. For those that like to run probability figures, there are 30 Mexican states, and a total of 2,044 Mexican amateur licensees, according to last years Call Book. Have fun.

(From JPL Amateur Radio Club "Newsletter")



Events

The Mission Trial Net will be holding their 37th annual roundup on June 15 and 16 at Pea Soup Anderson's in Buellton, Calif. The banquet is scheduled for Saturday evening, June 15. For reservation information contact Eill Long (K6EVQ), on MTN any evening at 1900 on 3928 kHz or write to K6EVQ, Box 151, Buellton, CA 93427. . . . Reservations will be necessary.

The Tri-Counties Council of Amateur Radio Clubs (TRICAR's) will be holding their 2nd annual picnic on July 27 at the Union Oil Orcutt Picnic Grounds, just south of Santa Maria, (same site as last year). Featured will be the world famous Santa Maria style barbeque. Swap tables will be supplied at no charge to those with picnic tickets. For information contact Arnie Dahlman, (W6UEI), 3022 Los Positos Rd., Santa Barbara, CA 93105. On the air, W6UEI can be reached any Wednesday on the Santa Barbara AREC Net 3935 kHz at 2000 PDT.

DXPO 74

Plans are now firming up for a fabulous DX Convention to be held at Reston, Virginia. (Near Dulles Airport and Washington, D.C.) The tentative date is September 28th, 1974. Write to Chairman, Stuart Meyer, (W2GHK/4), 2417 Newton St., Vienna, VA 22180 and you will be placed on the mailing list for final details and further information.

During the Armed Forces Communications and Electronics Association (AFCEA) convention, Amateur Radio facilities will be provided by the Chief of Naval Operations (CNO) Amateur Radio Station, K4NAA.

The convention will be held at the Sheraton-Park Hotel in Washington, D.C., from 11 to 13 June 1974. K4NAA, the official amateur radio station for the convention, will be on-the-air from 1000 to 1800 EDST daily with two positions on the 10 through 80 meter amateur radio bands, phone and C.W. Licensed radio amateurs throughout the world are invited to contact K4NAA during the AFCEA convention. A specially designed QSL card, personally signed by the Commander, Naval Telecommunications Command, Rear Admiral Jon L. Boyes, USN, will be sent to acknowledge contacts.

Amateurs desiring to utilize the K4NAA facilities will be required to show their original FCC license in accordance with Article 97.83 of the FCC Rules and Regulations. A facsimile or photostatic copy cannot be honored.

The U.S. Navy and AFCEA invite all enthusiasts to visit the K4NAA exhibit.

The Greater Bay Area Hamfest-Pacific Division Convention is scheduled for October 26 and 27, 1974 at San Mateo, California. The Convention Committee elected Veikko West, K6ORP, as the Chariman.

Plans call for a full convention program, will an added attraction of a technical symposium on Space Communications, to be held at Foothill College in Los Altos, California on 28 October, Veterans Day. While an affiliate of the convention, this added attraction will be open to all, even those who do not attend the convention. A number of nationwide papers on technical subjects involving Amateur Radio in space will be presented at the symposium.



around the world



JA2GXG, WA6DEI, JA2ACR, JA2PHQ, JA2-DNA at Nagoya train station.

During February, Paul Gagnon, WA6DEI, SCM Santa Barbara Section, was invited to visit with the Ikawara Amateur Radio Club of Nagoya, Japan. This was a pleasant surprise and a very enjoyable experience.

It all began when WA6DEI was sent to Japan (Yokosuka) to work on one of our Navy ships. While he was over there, Ralph Cozad, WA6TMQ, was talking to Hiroshi Mano, JA2AJA, on his weekly schedule and mentioned that Paul was staying in Yokosuka. Hiroshi called on the telephone from Nagoya to Kokosuka and invited WA6DEI down for a visit the next weekend.

Paul arranged to go to Tokyo and ride the famed Bullet Train to Nagoya. The train trip takes 2 hours from Tokyo. Upon arrival at Nagoya, the members of the Ikawara ARC, including Nobo Shibayana, JA2-GXD, Takio Taka Kubota, JA2AGR, JA2-PNQ, Yoshiharu Horio, JA2DNA, and JA2-AJA, were spread along the train platform to cover every exit from the train.

After warm greetings and introductions the group made their way to the QTH of JA2-AJA to see his shack. A schedule had been arranged with WA6TMQ for this time and it was a pleasant surprise to hear Ralph coming through so well. After exchanging messages and greetings the group went to a Japanese steak house for a fabulous dinner of steak and all the trimmings. It was really a feast fit for a king. Joining the group at the restaurant were approximately 15 other members of the Ikawara Club. A great time was had by all. After dinner the cameras came out and everyone took pictures to remember the occasion by.

A trip to the club station followed where even more members came out to greet Paul. As is the custom with the club, Paul was given the opportunity to write a greeting on a large placard for posting in the club. Also, he was given a similar placard with signatures of all the members of the club with a few words of greeting.

After amateur radio was out of the way, several members spent the rest of the day touring the various shrines and temples in the area that make up the Japanese tradition.

Night brought the return of the bullet train and the return to Tokyo. The Japanese amateur is a special kind of person. They enjoy the opportunity to use their English and take time out from their very busy schedules to show a visiting American the Japanese way of life. The common bond is that all are amateur radio operators. Keep this in mind when you travel abroad. Amateur radio opens many doors.

JA2AJA is QSL manager for Bob Richards, W6MHK, and also keeps weekly skeds with Ralph, WA6TMQ, who had the opportunity to visit Japan last year. WA6TMQ has won many awards by working thousands of Japanese. If you are planning a trip to Japan he can arrange a meeting with an amateur there.

by Paul Gagnon, WA6DEI

amateur radio - public service

Emergency communications at Xenia, Ohio

Condensed from a report by
Ron Moorefield, W8ILC,
Emergency Coordinator and others

A devastating tornado struck Xenia, Ohio at 4:40 p. m. EDT, 3 April 1974 damaging around 2500 homes and buildings, killing 28 persons and sending several hundred to hospitals.

The tornado again touched down at Wilburforce, where extensive damage was done to Central State and Wilburforce Universities. Communications and utilities were knocked out in these areas with many roads blocked from fallen trees and wires.

Prior to the tornado, warnings had been broadcast from radio and TV "Instant Weather Radar" and these were in turn re-broadcast on the local 2-meter FM repeaters. After the tornado struck, FM mobile units and Miami Valley Disaster Services Communication van were on the road within the half hour. They handled priority traffic over repeater WR8ACV/04/64 (Miami Valley FM Assoc.) and WR8ABE, 22/82 (Miamisburg Wireless Assoc.). As traffic became heavy, several simplex FM links were soon found necessary as telephone service was out for several days.

After the FM net was in operation out of Xenia, the emergency coordinator placed calls to the three radio clubs via radio and Dayton telephone for additional help. Amateurs responded very quickly to their assignments where needed. Organizations involved in the call-up were: The Miami Valley FM Association, Miamisburg Wireless Association, and the Dayton Amateur Radio Association. Dayton CB REACT and amateurs from nearby areas also responded. These operators did an excellent job in supplying much needed communications. Some units continuing operations until 11 April, when sufficient telephone service had been restored. Over 100 amateurs had responded from the Dayton area to handle communications although there

were other touch-downs in nearby counties where other amateurs provided communications.

For the first arrivals at Xenia, everything was in a state of confusion with the various agencies not coordinated on their communications. A command post was soon set up outside the Greene County Jail. Complete communications were then established with the Montgomery County Sheriff's office, Box 21, Rescue from Dayton, The Red Cross, and various fire and rescue squads from surrounding areas. It was necessary for the Xenia police to use this post as their system has been knocked out. An amateur repaired their antenna to get back into service. As darkness approached with no power restored, a call went out for emergency generators and several incoming amateurs picked these up for the Rescue Center at the YMCA. Later heavier power units were brought in by contractors and the Ohio National Guard.

Due to the number of persons injured (press reports gave 585), the Greene Memorial Hospital was soon overtaxed.

It became necessary to transport injured to Dayton Hospitals 16 miles away and to WP-AFB Base Hospital 12 miles away. This required more co-ordinated communications as ambulances, doctors, and nurses were coming in from all areas. As per a previously worked-out plan, radio amateurs were dispatched to area hospitals to form radio links with the command center. About 11:30 p. m. a call went out on 04/64 for a supply of tetanus toxin to be sent to Xenia. It was on the way practically immediately, being transported by a radio amateur and his wife, a nurse. They later proceeded through downed trees and lines to Cedarville to establish communications from there.

Another radio link was set up at Dayton Red Cross so supplies could be dispatched as needed. Also, many inquiries were now coming in for information and assistance

as news releases carried the extent of the damage. All these calls had to be coordinated, with proper parties. For a time, even long distance service into Dayton was tied up, so that some calls were routed via HF Radio on the Ohio Traffic Net now in emergency session.

In the early morning of 4 April, the Columbus AREC group operating under the call of WA8RUT '8 and the Franklin County Emergency Coordinator moved a complete HF station, antenna, FM gear, power supply and operators to the Xenia Red Cross. Links were established with the communications van, the Ohio Traffic Net, and a line to the Columbus repeater 50 miles away. This group operated for four days handling 1500 messages.

In Dayton the main link for Health and Welfare messages was set up through WA8MCR. Separate FM links were made with Xenia and Dayton Red Cross. Phoned messages were also taken from AG1WR, of MARS. Traffic was now coming in nationally and starting to pile up. Due to the wide dispersal of injured and homeless people, it was very difficult to locate parties for any information. It was found necessary to dispatch both amateur and CB React mobiles to locate persons or homes, if they were still there. After several days an information center was set up at Xenia to clear inquiries. The link to the center operated on 147.5 MHz to move away from the repeater traffic. As an example of the difficulty in getting information as of 10 April there were still over 100 persons who could not be located. This number did not work down until names started appearing in the Dayton newspapers for several days. To show the extent of this operation, over 3,300 messages were handled in-and-out of the information center via amateur radio.

Many of the numerous communication links that were set up were from the amateurs own equipment and ingenuity. Antennas, coax, microphones, generators and power supplies were installed on the spot where

needed. An example was a gain antenna on two ten-foot sections of tubing taped to a NO PARKING sign in downtown Xenia for a link to Dayton. It was estimated that repeater WR8ACV operated over 110 hours, practically continuously at times, with rapid dispatches where no message count could be taken. Control operators in the communications van did an outstanding job in moving traffic. There were several man-and-wife teams who practically lived there for a few days. Other operators stood by to service the repeater due to the heavy work load. Overflow traffic was also dispatched into WR8ABE where tele-patch could also be used.

Conclusions and reports: All the amateurs responding did a very professional job and supplied many thousands of hours and equipment. The Dayton Xenia Red Cross highly praised Amateur Radio. It was indeed fortunate that Xenia was close to a large city where there were active radio organizations who will aid in emergencies. This report is by no means complete and cannot give credit to all who participated. Reports are still being written and coordinated. If you have any unusual events noted, pictures or comments, please turn in a report to your emergency coordinator so that it can all be compiled. A future issue of QST will carry the story of one of the worst tornado days in history, 3 April 1974.

It has already been established locally that our warning and alerting systems will have to be improved in such emergencies. We will be hearing more about this in the near future. Emergencies very seldom follow the same pattern so we must be ready for all situations. From monitoring the frequencies, it was noted that experienced operators using standard operating procedures really paid off in moving this great amount of emergency traffic. More lessons may be learned when all reports are received and studied.

(From "RF Carrier" Dayton ARA)

Tornado labor lasted for days

By Jim Weaver, WA8COA

Thursday morning after the April 3 Ohio tornados, amateur radio operations began to settle down into a routine. Began to settle down, that is, but they never quite made it for several more days.

Relief operations in Mason, Pishgah, West Chester, Elmwood Place, Saylor Park and Mack already had benefitted from amateur radio support on Wednesday. And a weather watch net remained in full operation from mid-afternoon Wednesday until after 2 a. m. Thursday when the tornado alert was ended.

Despite their being up until as late as 5 a. m. Thursday, the hams renewed relief operations at 7 a. m.

County police, city police, fire departments and Red Cross - not to mention hundreds of relief workers and victims - received direct benefit from Amateur Radio.

As but one example, one Hamilton County Police unit has one of the finest communications systems available. Nonetheless, even it received support from the hams.

More than one sheriff's deputy who wanted to talk to the county police officials at Springmyer School in Mack were surprised to find that when they dialed the telephone number they were given, a ham radio operator answered over his radio.

The telephone number was to a local ham operator. The repeater automatically connected the incoming call to a radio transmitter and the ham at the Springmyer School disaster headquarters answered.

Within seconds, Colonel Wolfangel who heads the sheriff's patrol or Captain Bradford of the patrol were talking by ham radio to the caller.

MASON: Hams with cars equipped with public address systems as well as radios were sent into tornado-ravaged areas to inform residents and workers where they could get hot meals, clothing and canned goods.

Portable amateur stations were set up in the Mason Police Headquarters, at Mason High School and in the Sherman Terrace sub-division.

Amateurs helped police search damaged homes, obtained welfare information on residents, directed food and supplies to workers, sent messages from residents to their friends and loved ones, installed a temporary antenna to put the police back into operation, co-ordinated operations with the Highway Patrol, local police and fire departments and the Red Cross.

Pishgah-West Chester: Provided communications between Red Cross shelters and Red Cross headquarters, supplemented county police communications, surveyed stricken areas and reported to Red Cross, conducted extensive weather watch, operated Red Cross commercial band communications system control station.

It was hams who struck out on their own into Southeastern Indiana who discovered tornado-stricken areas that had not yet come to the attention of the Cincinnati Area Red Cross. Through amateur radio repeaters, radio-to-telephone contacts between Franklin County, Indiana, and Cincinnati Red Cross brought first hand information to Red Cross officials.

To top it all, when they could be spared,

local amateurs went to the aid of Xenia residents. On-the-spot help with emergency communications in Xenia, as well as establishing Queen City area-based systems to help get welfare information messages out of Xenia throughout the country where the two forms of assistance given Green County operations.

More than 3000 welfare messages were sent out from Xenia as of this writing.

(From Cincinnati, Ohio, "Enquirer")

News of birth in radio relay

By Priscilla Verdi
Enterprise Correspondent

Easton - SA Richard C. and Sue Ann White are the parents of a 9 pound, 8 ounce boy, Richard Charles, born Tuesday at 7:04 a. m. at the Brockton Hospital.

White, stationed aboard the U. S. Coast Guard cutter Hamilton docked at San Juan, Puerto Rico, heard the news in a most unusual way.

Amateur radio operator Gerald Mottau of Barrow St., North Easton, Mass., has been relaying daily reports for White to the U. S. Coast Guard net, which passes messages between ships at sea, and the coastlines around the world.

Mottau has been keeping in touch with White since he was shipped out on Dec. 27. White and his wife met Mottau, while he was visiting his son in Cape May, N. J.

White and Sue were urged by the Mottau family to move to Easton and they helped find the young couple an apartment at Willow Farm, 101 Norton St., South Easton.

The couple spent Christmas with the Mottau family and made friends readily with people in the Eastons. Richard and Sue attended the University of Pittsburgh. White's hometown is Mifflin, Pa., and Sue's Warren, Pa.

Tuesday morning shortly after the birth, Mottau radioed the news which went through the main station in Washington, D. C. Another ham operator, Leo Wilbur, called and Sue was "patched-in" directly from the Brockton Hospital to her husband in Puerto Rico, shortly after being wheeled from the delivery room.

The news spread rapidly and calls came in from Nova Scotia to Peru congratulating the couple from operators who had been listening to the daily reports from North Easton. Portland, Maine, Mexico, Ecuador, Panama Canal Zone, were among the stations checking out the good news.

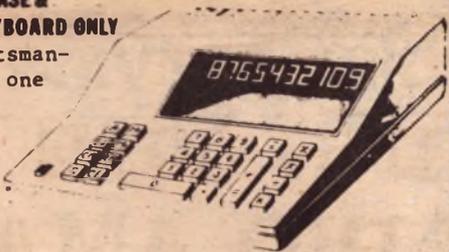
Mr. and Mrs. Fred Blair of Warren, Pa., great-grandparents will be arriving in Easton this week to help the young mother when she arrives home.

One of the biggest occasions for Sue was the introduction to Mrs. Lena Marchegiano of Dover St., through Mr. Mottau. Sue was quite excited to meet the mother of the late Heavy Weight Boxing Champion, Rocky Marciano. Mrs. Marchigiano will be among the greeters when Sue arrives home.

From Brockton, Mass. Enterprise-Times.

TABLE TOP CALCULATOR CASE & KEYBOARD ONLY

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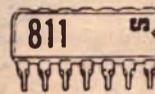
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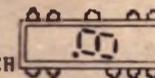
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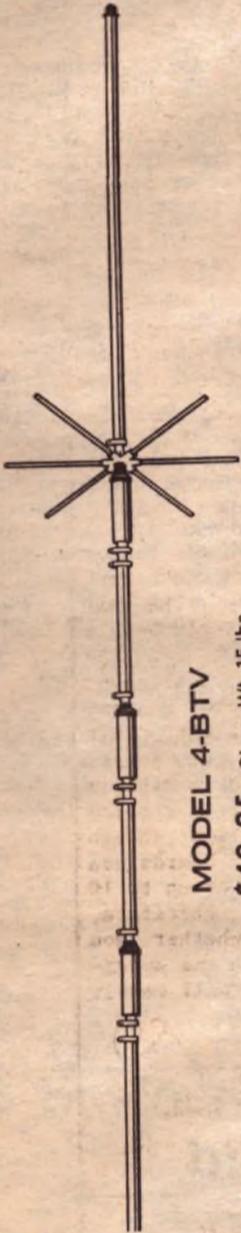
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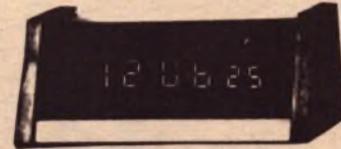
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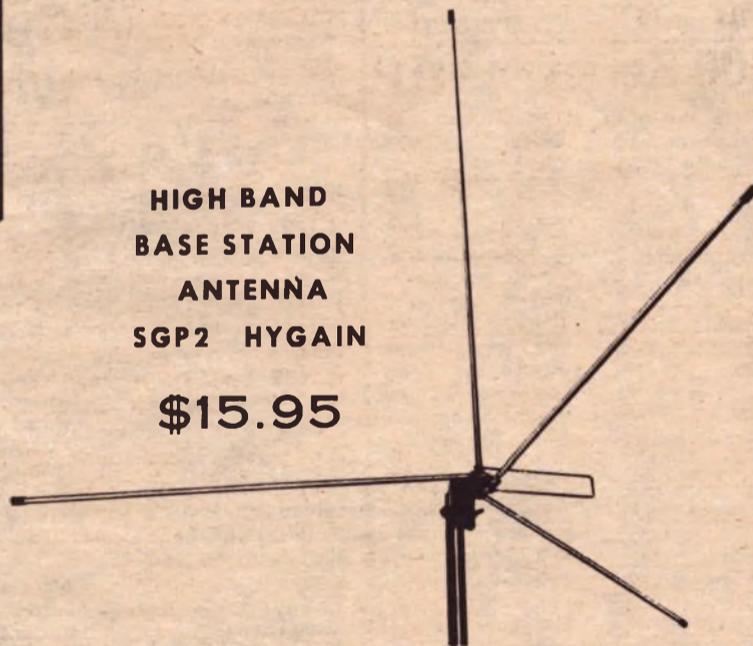
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Amateur Radio - Sister City

by Chuck Towns K6LFH

This program is an opportunity for Amateur Radio and Sister City people to participate in a continuing, high-profile international communication experiment.

It's a mix of presently proven skills and abilities put together in an ordered program to give and take maximum advantage of the international image presently enjoyed by the organization of Sister Cities whose parent is the Town Affiliation Association (TAA)

The Sister City Program was started eighteen years ago by President Eisenhower to help further international understanding at all levels of the community on a continuing, long term basis.

Within this program, cities and their citizens exchange things, ideas, and people in a wide variety of cultural, youth, educational, municipal, professional, and technical projects. This Sister City organization now has more than 500 overseas Sister Cities, each paired with a USA city. They are working together in more ways than can be catalogued here.

The closeness of these ties is directly proportional to the communication link between them and this is where the hams come in. At this time there are two trial programs under way in the San Francisco area and much has been learned concerning the most effective way that Amateur Radio and Sister City people can work together.

Remember:

We can, by engaging in regularly scheduled on-the-air meetings with key amateurs in other lands, gain international visibility on a people-to-people basis.

We can enhance our image by providing a highly useful service and by promoting international ties on a friendly personal basis.

We can put in a favorable international light the fact that frequencies are the life blood of the Amateur Service and they are won or lost on the international measuring table in Geneva.

These on-the-air meetings will certainly involve the technical community initially, and these contacts should be well covered by the local press. Subsequently, schedules should be set up to allow the city elders of each community to meet. Then, after the regular schedules have been established and the initial publicity has started to diminish, explore new ways to continue city-to-city interchanges such as:

Discussions between high school and grade school groups of the Sister Cities;

Discussions between groups of both cities with common artistic talent in art, music, theatre, etc.; same with hobbies.

This area is where the ham's ingenuity, working with the Sister City people, will come to play. The relative acceptance of such new programs should be reported as soon as possible so you may be given full credit as well as help new city-to-city programs that may be starting. (M. C. Towns, Jr., K6LFH, Project OSCAR, Foothill College, Los Altos Hills, CA 94022)

The most important part to be played in this whole activity is formation of a small group of amateurs who are interested enough in the program to follow it through. While there are, and will be, special technical skills needed for the program to move from step to step, the most important skill is persistence and belief in the idea. If persistence is your "bag", read on---

1. The first step is to identify the Sister City organization in your area. The newspaper office may be of help, but if not, write to Richard Oakland of the Town Affiliation Association, (1612 K Street, NW, Washington, DC 20006). He will send you the pertinent data.

2. Secondly, the communication policies of the country(s) in which your Sister City is located must be carefully examined. After study of constraints involved (particularly, third party traffic regulations), develop a means of providing the most effective communica-

tions within the legal limits involved. We have . Project OSCAR has worked out some difficult problems in this field. We would be glad to help you with yours. Those at OSCAR are working very closely with the FCC in the interpretation and application of certain general rules in this field.

3. Now direct contact should be made with the local radio club and/or DX group to enlist their support. The DXers can aid and organize schedules with overseas hams. We have found that DX guys had personal friends in the countries involved. Their participation will make the total task much simpler. Our local DX organization (R. W. Thompson, President, Northern California DX Club, P. O. Box 608, Menlo Park, CA 94025) has been of great help and has offered to consult with others, should a specific problem arise.

4. Contact the president of your local Sister City group and suggest that you work together on this communication experiment. Organize a meeting comprised of Sister City and Amateur Radio representatives to determine if mutual interest exists. A preliminary communication program with compatible schedules should result from this meeting.

5. Your acquaintance with your overseas buddies will warm to real friendship. Then explore ways and means by which your interface may become more effective. Organize a drive to contribute technical material to help complete the overseas technical library of your compatriots. Perhaps pieces of equipment and components may be available for donation to overseas hams in the Sister City program.

6. While all hope it will never occur, national and personal disaster may strike and Amateur Radio is often the major communication channel available. Discuss emergency communications with your overseas buddies and initiate planning to cope with potential disasters.

7. As your Sister City exchange program continues to grow, look to additional modes of communication to enhance your (our) image:

Slow Scan T. V.
Radio Teletype
Use of OSCAR satellite to provide short, but high visibility, 2-way contacts.

The ability of Sister City stations to schedule and communicate through an OSCAR satellite now justifies the time and money spent on the Amateur Radio Satellite Program. It has grown from an experimenter's tool to an operational device and placed additional amateur bands into international service.

Assuming the Sister City people and hams do their public relations and publicity homework, we will attain a nominal "state" awareness level for each fully participating overseas city.

It's felt that an adequate "federal" awareness level may not have been reached and another technical step will be required. This step will be the adaptation of OSCAR tracking antenna arrays plus special decoders to receive the US satellites transmitting local weather photographs. The practicality of this step has been fully proven and at least one Amateur Radio article has been written on this subject. (Greg Tobin, W6CCN, "Tracking and Recording Satellite Transmissions", HAM RADIO, Nov. 1968, P6)

The official determination of the propriety and legality of such actions by the Amateur Radio/Sister City community has not been completed at this time, but initial contacts appear encouraging.

Assuming no legal/political hangups, Amateur Radio working in concert with the Sister City people will receive national visibility as the daily local weather map is published in the overseas newspapers with a short note: "Courtesy of the Amateur Radio/Sister City Program".

Bridge builder

by Eunice G. Bernon, K8ONA

Dr. John H. Battison (W8KUC), of Brecksville, was recommended by Sen. Joseph M. Montoya of New Mexico for presidential appointment to the Federal Communications Commission.

Battison, who joined Radio WWWE in August as chief engineer, has been a licensed ham operator for 39 years. His first call letters were G2AM.

"I became intrigued with radio when I was 5 years old," he said. "That's when I watched my father build a crystal set."

"Then I began to build equipment for five meters. I recall grinding down English pennies to serve as a crystal holder for my first crystal-controlled transmitter."

Battison, a native of England, served six years as squadron leader in the Royal Air Force and flew Spitfires in the Battle of Britain.

He received a bachelor of science degree from London University and a doctorate from Florida State Christian College. He is a senior member of the Institute of Electrical and Electronic Engineers, and a former president of the Society of Broadcast Engineers.

Battison has built television stations in Calgary, Canada, and in Carlsbad, N. M., where his call letters were K5EMX. In 1958 he returned to England as chief engineer for that country's largest commercial television operation, Associated Rediffusion.

Battison returned to America in 1960 and opened consulting engineering offices in Washington, D. C., call letters W3EIQ. He was director of education at the National Radio Institute, a professor at the American University and television consultant to the University of Georgia.

He also was instrumental in creating a television system in Uganda and was first consulting engineer for the Dutch private television station off the coast of Holland.

In 1968 Battison went to Saudi Arabia, where he spent two years working on the Saudi Arabian Television and national defense communications system.

"In that part of the Mideast, aside from a couple of MARS stations, only the princes are licensed ham operators," he said.

Battison has written 15 books and more than 30 articles about his radio and television specialties.

His wife Sara is a teacher in the Berea school system but for extra-curricular activity, she is a glider pilot.

Battison is looking forward to operating his new Yaesu equipment on 20 meters, sideband mode, at his home shack. When the boating season opens, listen for W8-KUC - Marine-Mobile from aboard his yacht, the Mohawk-2. "But my greatest pleasure is designing antennas," Battison said, "I've experimented with them all over the world."

In the tradition of humanitarianism and public service, ham operators have dedicated their efforts to assisting the citizens of their communities in times of local, state or national disaster... Ralph J. Perk, Mayor, Cleveland, Ohio

Onward & upward

"What the technique of modern short wave radio owes to our Amateurs of the world is never told, or is loath to admit.

Discoveries which the paid commercial engineer would never dare attempt to make, simple and compact constructions which only poverty, necessity, and an untutored common sense could ever evolve, have time and time again emanated from the Ham's workbench, to confute and confound the professional into speedy confiscation. All these things, priceless in themselves, we owe to the Amateur.

And little does the Amateur ask in recompense for all this. Merely to be left alone in a now cramped cranny in the wide fields of higher frequencies which he discovered and gave to mankind."

The above material is taken from *Conqueror Of Space* the life of Lee DeForest. He is the inventor of the three-element vacuum tube and the sound picture as we know it today.

It shows the high esteem the Amateur was once held in. The problems we have today our ones we have created.

Neglect and disregard on our part have caused the decline of our position in the eyes of the public.

The only way we can regain the once proud position of the Amateur is to get active. Support of the ARRL and your clubs is a good place to start.

(From "QRM" Ozone ARC Slidell, LA)

Get involved - we did

by Lloyd Olson, K4WXT

The Platinum Coast (FL) Amateur Radio Society, (PCARS, owners and operators of 25/85-Melborne) sat down on the job and watched as over 100 youngsters made their way on a 20 mile walkathon for the March of Dimes.

But while sitting, they provided 2-meter communications from each check point, located every two miles along the route, to the walkathon director. By using the repeater, operators were able to utilize hand-held portables as well as mobile installations. This provided full quieting communications over the entire route.

Communications for a walkathon can be of vital importance in providing real-time information to the director on current locations of walkers, request for resupply, emergency request and transportation request for "drop outs."

Lacking autopatch facilities through the repeater, we had two operators at home continuously monitoring to make necessary emergency or morale calls as needed.

A total of 14 operators participated in providing the communications needs, and all went extremely well except keeping the youngsters off the roads.

It's fun to watch 'others' walk, try it someday; get involved. We did!

(Florida Skip)

The magic of Marconi

by Ed Comeau. W1JWA



Marianne, Leif, Charlene, and Ed.



Charlene, Ed's father, Ed, Marianne, Ed's mother

There is an aura that pervades this planet. I call this aura "The Magic of Marconi" and few can escape its influence. From the unilateral broadcast bands of AM and FM to video's UHF-VHF all of us come under the special gaze of the ether wave.

Money, or the lack of it, age or old age, tastes or interests; none of those withstanding, all of us are within easy access of this aura, this "Magic of Marconi".

Yet there is a few, a select few from each hamlet, who bridge themselves across an arc of this terrestrial sphere and change the mode from unilateral to bilateral. By so doing, they virtually touch fingers from city to city and from nation to nation.

Most of you who find this "WORLD RADIO" interesting know about the very special magic of touching each other with a telegraph key or voice communication.

My story may start with a scan of the dial, the turn of a switch from frequency to frequency, the readable contact, but what follows is more aura, is more magic that can hoped to be achieved from a little radio shack in Haverhill, Massachusetts, great interest notwithstanding: Let me tell you about it.

INITIAL CONTACT:

Two years ago this ongoing contact was made. I was scanning the 15 meter band when I heard a 5-8 signal out of Norway. He gave his call as LA700 and I replied: "LA700 this is W1JWA" we exchanged the signal reports, names, and we spoke of his pending trip to the USA in a few months, his father's activities on Norwegian ships, and his plans to buy some land and get married. While it is true that most foreign contacts are limited in time and scope due to the language barrier this contact lasted for 55 minutes. After we finished speaking with each other I QRT'd.

BETWEEN CONTACTS:

We exchanged QSL cards, and Leif also sent me two postal cards of his QTH - Karmoy, Norway.

LAND-LINE COMMUNICATION:

Some five months later, and out of the blue, I returned home from work and my wife, Charlene, told me that I had a "call" from LA700. She explained that she was referring to a call on the telephone line, and that LA700 would be calling back at 6:30 p. m.

At 6:30, sharp, the phone rang. When I picked it up Leif was not only speaking from the USA but from only 50 miles away, at

Nashua, New Hampshire. He explained that he was visiting relatives in Nashua. I asked him if he could come to my home that night. He agreed, and I left for Nashua to pick him up and bring Leif and his fiancée, Marianne, to Haverhill, MA.

VISUAL CONTACT:

The 50 miles from Haverhill to Nashua flew by and I arrived there at 7:45 p. m. and met Leif Skaar, LA700, and his YL and relatives, Per M. Midboe and his wife, Frida.

We visited a while, speaking in English (if I were to be understood) then Leif and Marianne followed me back to Haverhill. Upon arriving the first thing I did was take them to the QTH of WA1MKK (Paul and Florina Comeau). They are outgoing type people, and I knew they would welcome my new acquaintances from Norway. Paul showed Leif his station and after a short visit we left for my house where they met my wife, Charlene, and my 18 year old daughter, Melinda.

I took Leif down to the basement and showed him my station. During our conversation he mentioned that he had never worked 2 or 6 meters. So, I immediately picked up the telephone, and gave a land-line call to W1GRT (Al Watts of Haverhill, MA) and I made a schedule for this time. W1GRT came up on frequency and Leif made his first 2 and 6 meter contacts. He was quite pleased. Marianne was visiting with Charlene. By this time it was getting late so we went upstairs and visited with the women. Leif then noted he had used all of his film at WA1MKK's QTH and wanted to know if he could return another day and take some pictures of my shack. Shortly afterwards Leif and Marianne left for Nashua, NH.

VISUAL CONTACT # TWO

Two days later Leif and Marianne returned and together we toured my old neighborhood (some 45 years past) and visited my 93 year old father, and my 81 year old mother. My father, on hearing that Leif came from Norway, thought that Norway meant Norway, Maine. We all assured him that Leif came from the Country of Norway, and not a local city. Father was greatly impressed, and I think rather pleased that a radio contact could turn out to be a genuine handshake contact. Leif and Marianne left Haverhill Massachusetts, USA at 9:30 that evening and that was the last time, to date, I have laid eyes on them.

Before Leif left Haverhill we made a schedule, to be used for our next contact.



Marianne, Leif, Charlene

RADIO CONTACT # TWO

About three or four weeks after LA700 left the USA we made our scheduled contact. We spoke of his visit to the United States and he said that he was ready to come back. When he told me this, I knew that he had enjoyed himself, and what more could be said.

Leif mentioned that he was sending a small package by mail. We spoke of the "contacts" he had made and how favorable impressed he was with the 2 and 6 meter bands. We discussed things of a general nature, we passed along our best 73s.

BETWEEN CONTACTS:

A package arrived containing a Norwegian Pewter Salad set.

Due to the declining sun spot cycles contact with Europe is poor and minimal. Therefore, our past schedules have been very poor for intelligent contacts. Leif wrote to me and told me that he had built his house and had married Marianne. He included a postal card of Karmoy showing his residence.

Leif explained he was looking forward to the time when the propagation would be in our favor on the 15 meter band.

IN SUMMARY:

It was almost two years ago that this ongoing contact was made. My life has been enriched; I have met, on a face to face basis a national of Norway who originally expressed himself in a mode we all take so much for granted.

Now it is around a dozen of other nations that I have met, both in person and on the radio, Canadian, Bermudians, Arabian, French and Italian.

Amateur Radio is more than just a pastime with me now.

For cementing better international friendships and excellent (about 95%) QSL return, write in the language of the DX station that you worked. How? With K3CHP's DX QSL GUIDE. It contains a list of numbered radio-amateur sentences translated into 54 languages. Simply select and copy sentences in the language of your choice. \$3.95 Joe Mikuckis, 6913 Furman Parkway, Riverdale MD 20840

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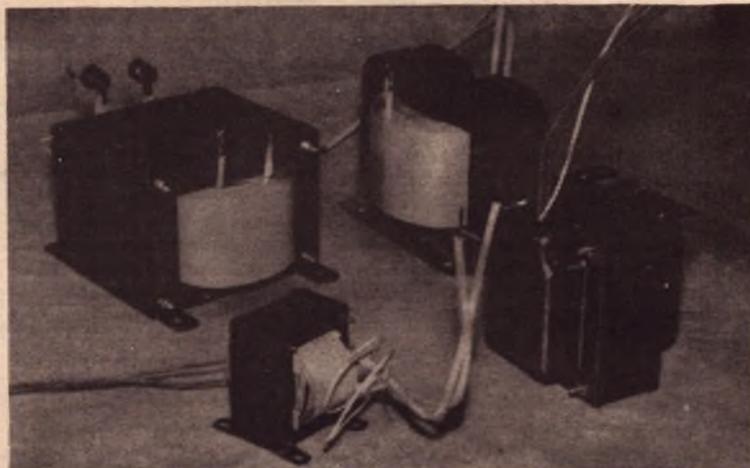
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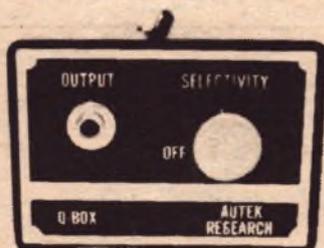
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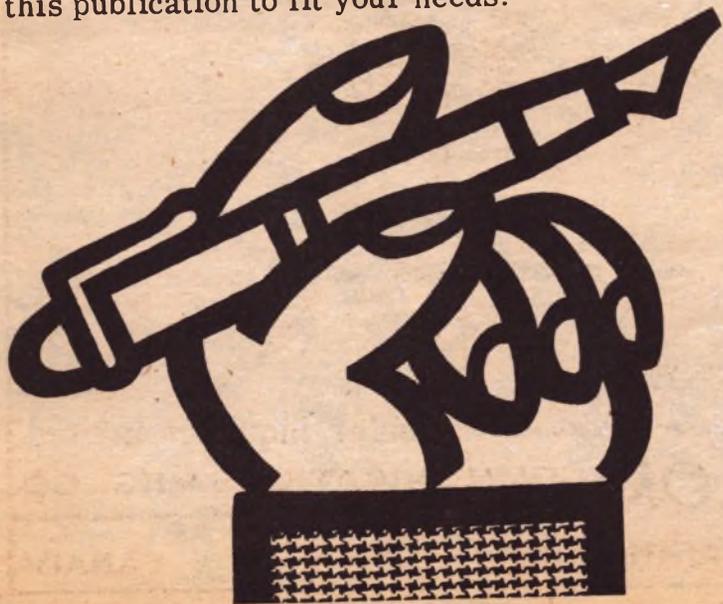
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The priest on the top of the world - 9M1MM

by Edward Wakin

All over the world, the voice of a white-haired Jesuit missionary is heard from Kathmandu, Nepal, a landlocked country on the southern slopes of the Himalayas.

Each time, the message begins: "Nine Nancy One Mickey Mouse."

They are the call letters, 9N1MM, for a ham radio operator, educator, organizer, navigator and priest from Chicago. MM in the call letters stands for Marshall Moran, S. J., who left home 44 years ago for the missions.

The first 22 years were spent in India, the past 22 in Nepal where in 1951 he became the first Catholic priest to enter the country in 20 years. Once before there were missionaries here, but they had been forced to leave this country of Hindus and Buddhists.

Since 1951, Father Moran has become known throughout this country of 11-million for his work in education; for helping Tibetan refugees; for sending SOS's via his ham radio; and for offering a helping hand whenever needed. He is just as likely to be found on a remote mountain village as at a diplomatic reception.

Most of all, his work in education stands out in this developing country struggling to enter the modern world. He has left a strong imprint on at least two generations of Nepalis--from members of the royal family which rules this country to the sons of illiterate farmers. His work is epitomized by St. Xavier's School in Godavari, eight miles from the capital, Kathmandu. It is the place where 22 years ago he began his Nepalese odyssey by converting the home of a former Prime Minister into a school.

Father Moran had come to Nepal by invi-

The sister in Ventura

THE "FLYING NUN" OF THE AIRWAVES

by Margot A. Meyer

A Sally Fields she's not, but Sister Mary Charlotte (K6VFE) could definitely make the Top Ten list of the "flying" operators of the airwaves, even though she is a retired nun.

Running a Drake TR-3 on five bands during all hours of the day may seem out of the ordinary for a sister, but the nuns at St. Catherine's by the Sea in Ventura, Calif., have become used to the idea. After having Sister Charlotte there for three years, the sisters have learned to adjust to the effects of having a ham in their midst.

Sister Charlotte has managed to erect a healthy antenna farm in the middle of St. Catherine's. She also instituted a class for local beginners in Amateur Radio and keeps up-to-date with her hobbies of painting and rockhounding.

During her earlier radio days, before she obtained her Advance Class license, she gave her "handle" to other operators as "Charlotte."

"I was afraid other hams wouldn't talk to me, so I told them I was a teacher in a Catholic school", she explained. She found that most hams were interested in knowing she was a sister and called her "Sister Charlotte", even though official titles are usually shunned on the airwaves.

Before knowing that she was a sister, one man from Pittsburgh asked, "This is a man's world--what are you doing in this

tation. During his years in India, he had taught many Nepalese students who had to leave their country in order to get an education. They became his boosters and his fans and they eventually asked him to set up school in Nepal, which had been kept isolated from the outside world.

He recalls: "I was the first unofficial foreigner to take up residence. Otherwise, there was only the British Ambassador."

His Nepali friends took Father Moran all around Kathmandu Valley in search of a suitable place for a school. He kept looking and he kept hoping he would find what he needed. He had no luck until he was told about the former home of a prime minister.

He saw it, liked it and asked for it. The building was large, there were stables which could be converted into classrooms, and there was the best water in the valley. When his request was turned down, he threatened to return to India. He got his building and his school.

It is an incredible setting for a school. Tree-covered mountains surround one side of the school which itself is 5,000 feet above sea level. There is one mountain 7,000 feet high and another called Phul Chawki (the Place of Flowers) which is 9,000 feet high.

Some 260 children live at the school and attend the first six grades in a school year which runs from Feb. 1 to Dec. 1. The "summer vacation" takes place during December and January. They are enthusiastic recipients of Father Moran's chance for an education. They include the little brother of Nepal's queen as well as children of farmers, shopkeepers and taxi-drivers.

"Nepali children," Father Moran reports, "are eager to learn. They are very open, always ready to try something new. And the remarkable thing is that there never is any bullying of smaller children by

field, looking for a man?"

The biggest laugh came after he received her QSL card. That night she got the majority of her calls from his friends--they all wanted a QSL card from "Sister Charlotte."

Most of Sister Charlotte's 73 years have been spent teaching in parochial schools throughout the nation. She holds a master's degree in mathematics and science, and a bachelor's in music.

On one occasion, a young girl who had just struggled through a semester of biology in Sister Charlotte's class came to her during registration and insisted on taking chemistry.

"But, dear, you can't", sister explained. "You'd never learn it--it's too hard for you."

The little girl came back with, "Oh, no, anything you can teach, I can learn."

She recalls her students as always being optimistic in the classroom. She remembers one student saying on the first day of school, "I'm so glad I'm coming in here. We never know what we are going to do."

One of her supervisors once commented on her teaching techniques, "I don't know whether or not you teach them very much, but you sure do entertain them."

Entertainment is the key to Sister Charlotte's teaching. "I think that entertaining them is a good way of putting it over. All you have to do to be a good teacher is to be a good salesman."

One of her entertainment antics involved a paper throwing incident at a school in Austin, Texas. It turned out that on each ball of paper being tossed about was written a question. When the signal was given, the paper wad in each student's hand was the question that student had to answer.

bigger children. They live together beautifully."

Besides Father Moran, there are two other Jesuits at the school plus a teaching staff of live-in teachers recruited from Nepal and India. They carry on a teaching program which is bilingual so that the children are at ease in both English and Nepali.

But St. Xavier's, which is clearly Father Moran's first love, was only the beginning. A high school for grades seven through eleven was also established in Kathmandu and facilities were added there for children in lower grades who commute each day from home. All this was launched within four years of the priest's arrival in Nepal.

Meanwhile, Father had become an expert in the geography of Nepal. The main transportation until recent years was private planes and this called for the services of a navigator who knew the mountain-and-valley landmarks of Nepal. Thus, on many occasions Father Moran was called upon to direct a pilot on his journey. One of Father's favorite feats was to point out to Nepalis the birthplace of Buddha himself in their country.

In recent years, he became involved in helping the Tibetan refugees who fled from the Communist Chinese. Nepal provided a refuge and Father Moran worked to set up the Tibetans in rug-making, their traditional skill. At present, with the help of the Swiss Red Cross, a thriving rug industry is being operated by the Tibetans just outside Kathmandu.

During all these efforts, Father Moran has never been far from his ham radio. It is more than a personal hobby; it is a national service for Nepal, which has limited communications inside the country and little communication with the outside world. It is a means of sending emergency calls, of getting information from the continuous series of mountain climb-

As a student herself, Sister Charlotte put in several semesters at Notre Dame--before it became coed. She also attended the University of Southern California.

"I pulled a real good one on a teacher at USC one time," she recalled. At the time she was taking a course in navigation with several other sisters. Each week the teacher would announce the best homework paper for that week. The problems were "real cute and interesting," so Sister Charlotte did them neatly, but never received the "Best Paper" award.

Then, before the term ended, she learned that "Best Paper" always had the air speed in red pencil and the ground speed in blue. The next week, she did her paper that way ---and had the "best".

Her greatest pastime, next to Amateur Radio, is painting. She attends an art class every week, but does most of her "masterpieces" at St. Catherine's.

"I found out that I love to do portraits," she told me. "The sisters always put little cards in my room if they think I'd enjoy painting them. I always do these different things."

One of her favorite subjects is Mark Spitz. She usually copies her pictures from magazine photos. The particular photo of Spitz she worked from had been in "Life" magazine. After working very hard on it, she stepped back to see if it really did look like his photo. It certainly did--but Sister Charlotte decided that in the photo, Mark wasn't smiling enough, so in her portrait she made him smile.

"Now he looks like he's laughing his head off," she told me, laughing herself. "He also looked like he was falling asleep, so I woke him up!"

Her self-portraits turn out even better than her copiers.

ing expeditions in the Himalayas and of maintaining contacts with people all over the world.

For instance, at noon one day Father Moran talked to a Japanese mountain-climbing expedition and then relayed the information to Osaka, Japan. He talks often to a ham operator in Russia and every morning at 7:30 a. m., to Huntington, Long Island.

In between world-wide conversations, he will walk over to his class in English composition for Nepali fifth-graders at St. Xavier's School. Or he will talk enthusiastically to visitors about Nepal and the work of the Jesuits there. Besides three Jesuits at St. Xavier's, 10 others work at the high school and in helping Nepalis prepare for college.

Help and self-help come from many directions. Where students can afford to pay the reasonable room, board and tuition, they do so. (A similar school costs four times as much in India and will cost three times as much in a new school being established in Nepal). Where students cannot afford the tuition, Father contacts wealthy people in their area for scholarship funds.

In addition, there are the economies of operating on a strictly-local basis with local materials and local help. The same carpenter has been working for 22 years fixing, building and replacing. Help is also provided by the Chicago Province of the Jesuits. (Father Edward Mann, S. J. 3431 N. Ashland Ave., Chicago, Illinois 60657, will gratefully acknowledge and forward any aid of the Nepal operations.)

Then there is the extra added ingredient provided by Father Moran who manages to pick the right time and place, to talk to the right person and come up with the energizing idea. Ask him a question and you can get a concrete answer, not a generalization, on jobs done and to be done on the slopes of the Himalayas.

"I tried to draw myself and I looked entirely like somebody else. Most of my pictures look kind of 'Liz Taylor-ish', so if I look like Liz Taylor, don't mind, she smiled.

Even when attempting to paint some young Indian girls, the Liz Taylor influence slipped in.

"She'd be flattered, wouldn't she?" was sister's comment.

Another long-time hobby that Sister Charlotte hasn't dabbled in lately is photography. Several years ago, during a fundraiser for some missions, Sister Charlotte took photos of more than 100 people's eyes with a close-up lens. They were then challenged to pick their own eyes from among the 200 pictured. The price was five cents a guess, and of the 100, only five guessed their own.

Although Sister Charlotte often creates humorous scenes herself, the funniest ones frequently happen on their own.

While walking in a park one day, she was asked by some little girls how long she had been a sister.

She replied with a long-drawn-out "soooooo looong," and one of the little girls commented, "You sure look it."

A psychiatrist who visited her art class one day summed up her colorful character fittingly with the observation, "Boy, if she doesn't beat anybody I've ever met.

"At her age, she is the most fully-adjusted, happy and well-balanced person I've ever met.

Sister Charlotte agrees with that analysis, and reflects her versatile style through a wall plaque that hangs in her radio shack.

It says, "God bless this mess."

Ham radio at KSU

George Detar, Jr. EE

Up in Seaton 402 you can talk to the other side of the world. Or anyplace else.

Room 402 is the location of the Kansas State Amateur Radio Club station, W0-0000. The equipment there has been used by KSARC "hams" for purposes ranging from talking with foreign radio amateurs to providing emergency communications in disaster areas. They also send messages to any place in the United States free of charge.

The club is advised by the Department of Electrical Engineering, but the membership is made up of both engineering and arts and sciences students.

Over the past two years the club has grown from a handful of members with little equipment to an active organization. Four semesters ago there were only three men in the club. Now there are twelve licensed hams and several others are working for their license. Donations from around the state have helped solve the equipment shortage and have allowed the club to equip four operating positions. W0000 now has operating capabilities in single sidetand voice, radiotelegraph, and teletype.

When the tornadoes struck Clay Center and Greenleaf, K-State hams were fully involved in the relief efforts. With the phone lines down and local exchanges damaged, the only route for messages in and out of the disaster zone was by radio.

The first communication from Clay Center after it was hit was provided by Rod Blacksome, a graduate student in electrical engineering and a KSARC member. Other amateurs soon followed, setting up and operating portable and mobile stations for the relief organizations. In all, amateurs from the K-State club spent about 150 hours in the disaster zones. Bruce Frahm, a computer science major, worked for thirty-six hours straight. He

was once interrupted by a clean-up bulldozer that removed the supports from the antenna of the station he was operating as well as debris from the twister.

Here in Manhattan W0000 operated for most of the emergency, handling over a hundred messages and acting as control station for the hams in the field.

Setting up communications during the disaster is not the only public service work KSARC has been doing. W0000 sends out messages from Manhattan to anyplace in the United States for free. These messages filter through the nationwide amateur traffic networks until they reach a station close to their destination. The operator there delivers the message by a local phone call. Anyone in the Manhattan area is welcome to make use of this service. The station is also equipped with a patch into the telephone lines and can connect a distant station to any telephone in the exchange.

More time is spent on ham radio for recreation than for public service. Several club members build equipment and everyone likes to tinker with it. The club also competes in operating contests once in a while. In these contests stations work for the greatest number of contacts using the least transmitter power. The favorite is probably the Field Day. In this contest the stations are set up out in the field simulating emergency conditions. The camping out, the problems and schemes in getting the equipment to work, and the amount of liquid refreshment consumed usually add up to an entertaining event.

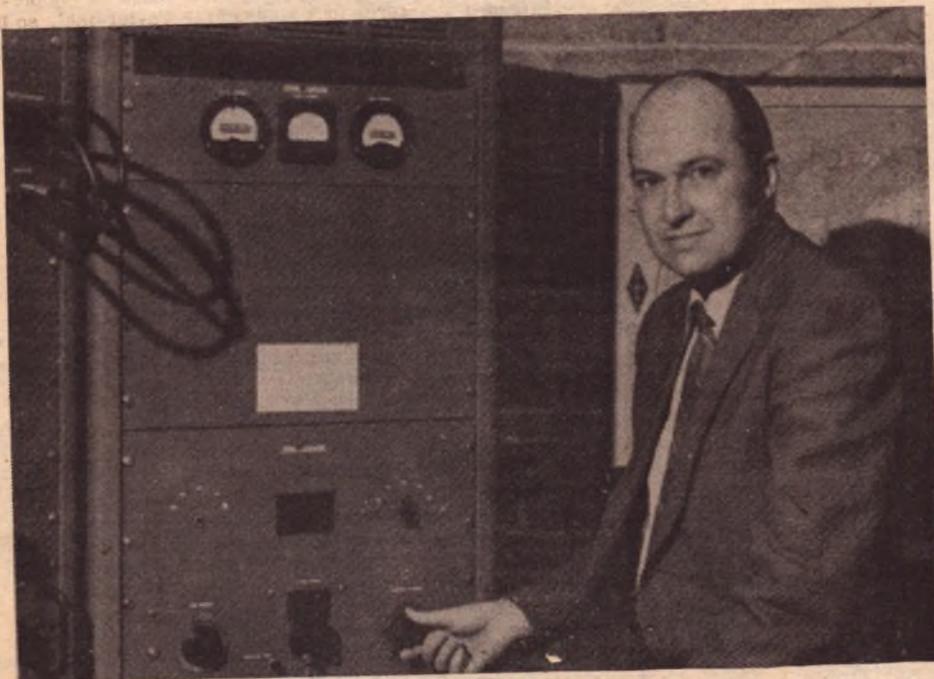
W0000 is used for private operating as well as group activities. DX chasing (contacting foreign stations) is popular with club members. A couple of them also seem to like the "art" pictures that periodically come in over the radioteletype. Talking with friends at home or just any ham who's on the air takes up a lot of operating time and space in the logbook.



The ham 'shack' on top of Seaton Hall, with club members Rod Blacksome and Scott Casey operating.



Local amateur radio operator Leroy Buller looks at cards from five different continents, representing a few of the foreign station contacts made by W0000.



Dr. Johnson, the club advisor, shows one of the large linear amplifiers owned by KSARC.



This photograph was taken of the station in 1941.

FCC

The Commission, by its Safety and Special Radio Services Bureau, on the dates shown, took the following action:

May 2 - Wilbur G. Culpepper, Jr., Portsmouth, VA., operator of Amateur radio license WA4WRZ. Suspended the license for the remainder of its term for violations of Part 97 of the rules including Section 97.87 (a) by failing to identify his station by the assigned call sign at the beginning and conclusion of each transmission.

The Worldradio News, June 1971

Charles E. Miller, Duncanville, Tex., \$200, licensee of Amateur Technician radio station WB5CDM. For violation of Part 97 of the rules including willful violation of Section 97.87 (a) by failing to identify the radio station by the assigned call sign.

ACTIONS IN DOCKET CASES

By Chief Administrative Law Judge Arthur A. Gladstone on the date shown:

Clifford I Waeler, Los Angeles, Calif., licensee of Amateur radio station WA6-CCY (SS-458-74) (Action April 26)

International goodwill

The Secretary General of the International Telecommunication Union has announced, the establishment of an award for amateur radio operators in recognition of their efforts to promote international goodwill through Amateur Radio.

This award, the DIPLOME DES 100, will be given to any radio amateur who submits proof of contact with radio amateur stations in each of 100 different countries, members of the Union. There are presently 145

countries-members. Stickers will be given for each 10 additional contacts.

The administration of this award has been delegated to the International Amateur Radio Club (4U1ITU), Geneva (Switzerland).

For further information, address inquiries to:
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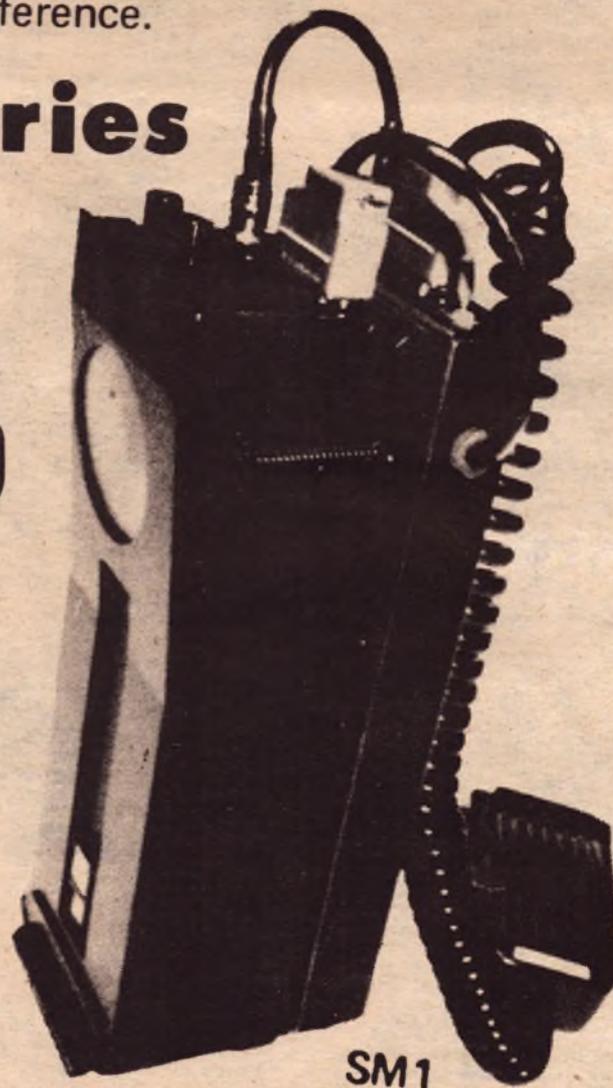
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The Worldradio News, June 1974

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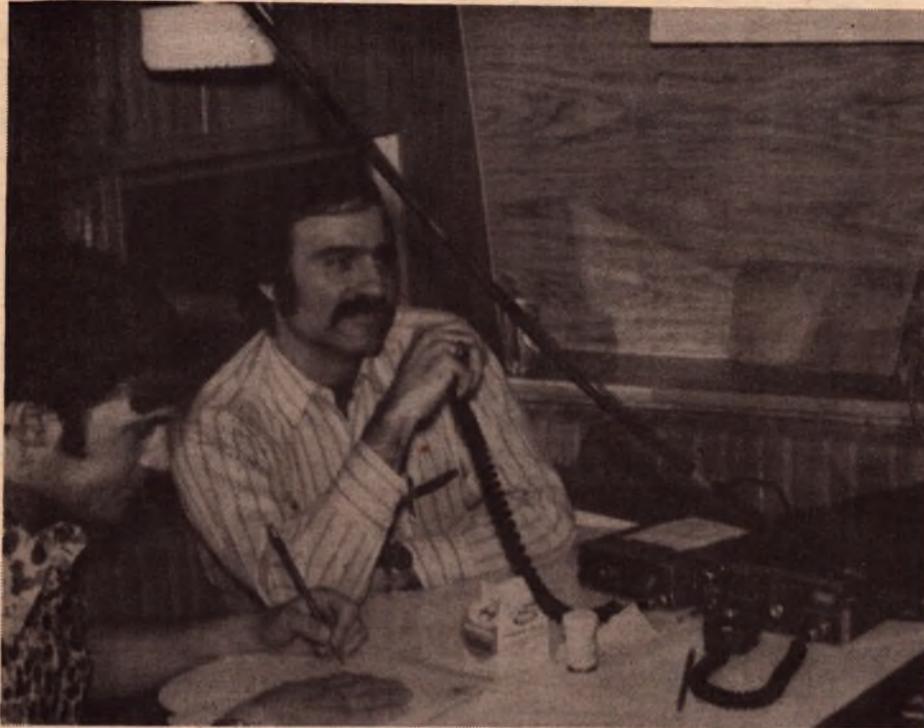
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Ken Check WA6JHI and Gary Gordan WA6IKF

'74 WALK-A-THON

by John Bischoff, (K6TKF)

The Santa Clara Valley VHF Relay Society (WR6ADE), for the second year in-a-row, provided the communications for the annual March Of Dimes Walk-A-Thon in the San Jose (Calif.) area on March 17.

Many of the 42 WR6ADE members who participated began their day at 0700 and continued through the march with a steady stream of message handling until 1830.

Ken Check, WA6JHI, Communications Coordinator, directed the traffic from the Communications Center set up in a trailer at the Santa Clara County Fairgrounds. A magnetic map board kept track of the location of all mobile and portable units along the 20 mile march route. The Walk-A-Thon started at the Fairgrounds, wound through East San Jose and the downtown areas and ended back at the Fairgrounds.

Mobile units located at each of the seven check points relayed requests for medical supplies and other needs, reported on the status of the march, and advised of any emergency conditions in their area. Coordination with the San Jose Police Dept., Sheriff's Dept., and the Highway Patrol was maintained by a portable unit located in the law enforcement communications area.

WR6ADE members equipped with HT-220's and TR-22's provided the radio communication for the National Guard, riding the eight 2-1/2 ton "Poop Out" trucks and command vehicles dispatched from the Communications Center as needed to pick up those marchers too tired to complete the entire route. Water Buffalos (200 gallon tank trailers) were dispatched to the check points, providing drinking water for the more than 20,000 thirsty marchers.

In addition to communications, mobile units participated in the transportation of needed equipment, materials, food, and medical supplies to the workers and doctors at each of the check points.

Though weary from the long day's activities WR6ADE members who participated were gratified to have lent a hand for a worthy cause and to have the opportunity to enhance Amateur Radio's image to the public.

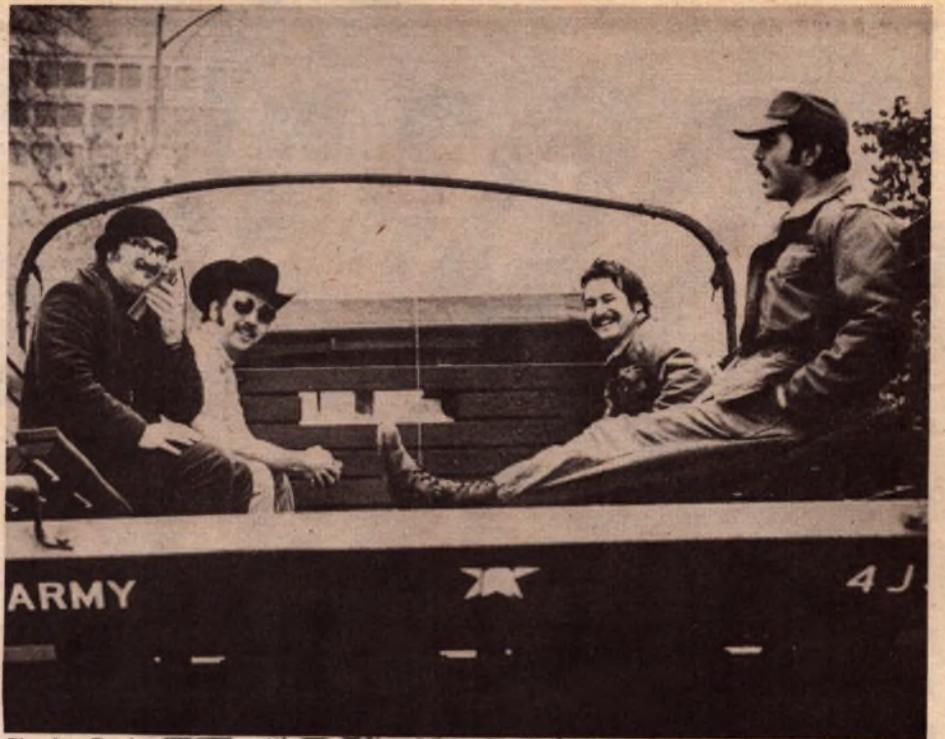
We learned a lot from last year's operation and this year everything went smoothly. The National Guard used our services exclusively and commented they wished their own communication systems were as good.

On Thursday, the March of Dimes held a luncheon for all of the participating organizations to discuss the pros and cons of the march. All the groups commented and had nothing but praise for the communications. Even the San Jose Police and Sheriff's Dept. were impressed, so maybe we have made some new breakthroughs in the image of Amateur Radio.

The Santa Clara Valley VHF Relay Society, WR6ADE (WB6OQS) is now in its 15th year. It operates a new solid-state .16/.76 repeater located on Mt. Chual (3800 feet elevation) twenty miles south of San Jose. The repeater provides coverage over the San Francisco and Monterey Bay areas. WR6ADE, an open repeater under membership control, may be accessed by 2400 Hz tone burst or PL.

Non-members are invited to participate in the weekly Check-in, QST, and Swap-Shop each Monday night at 2100 hours.

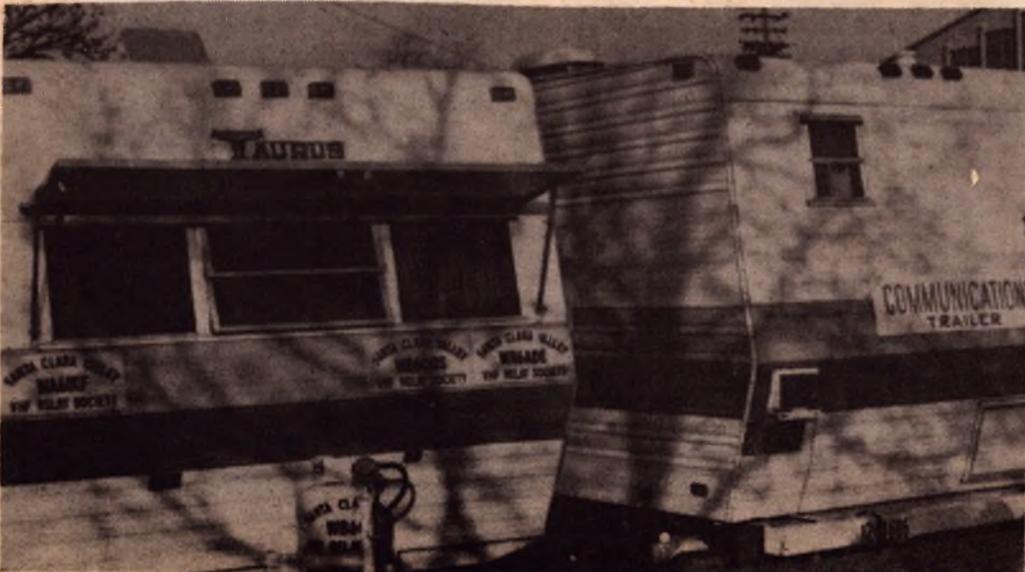
Photographs by Ernie Espiritu, WB6ZPW, and John Bischoff, K6TKF.



Charles Davies W8FIV, with HT-220 and Dave Wantz (WB6CCV)



Thirsty marchers at Checkpoint #6



Communications trailers at the Fairgrounds



Gil Morris (WB6KCJ) and Sgt. Sierra

Courage

by Ray Meyers, W6MLZ

Richard Joy, Jr., WB6YUE, is an amazing young man.

Richard is an electronics technician employed by the Hewlett-Packard Co. in Santa Rosa, Calif. Prior to his employment with that firm he held a position in New York City as a bookbinder and leader of a group of six employees in the New York Institute for the Education of the Blind.

Since his early childhood, Richard has been deaf, sightless and mute. Thanks to a woman in the San Francisco Bay area who tutored him for a number of years, he learned to listen to the human voice by placing his fingers on the throat of a person who is talking to him.

Like Helen Keller, he learned to talk although his speech is rather guttural.

Now, thanks to Hewlett-Packard, his new employer, Richard has learned to read with the help of an invention known as Optacon. This device, about the size of a text-book, derives its name from Optical-to-Tactile Converter.

It consists of a miniature opto-electronic camera which has a zoom lens to compensate for the differences in the size of type,

an electronic section which then activates the tactile simulator array, making it possible for the sightless to read.

Adaptors in the form of attachments permit the user to read such electronic visual devices such as the oscilloscope, various meters, and calculators.

The camera, about the size of a pocket knife is mounted in a housing that has rollers for easy movement along a line of printed matter. Heart of the device is the tactile unit simulator which consists of 144 tiny rods, six columns across and 24 rows long in an area about an inch by a half-inch.

The tips of these rods protrude through holes in a plastic cover that is grooved to let one finger touch the entire array.

Currently, the sightless have a little machine for receiving typed conversations by use of a device known as a tele-touchwriter. This machine has a small venturi tube in the rear which the deaf-blind operator is able to read the Braille letters as the small rods protrude through the tube when the type bar is touched by the person communicating.

This method of reception is somewhat similar to that adopted by the Optacon, but does require long periods of training in order to permit the sightless person to become acquainted with the method of

reading newspaper articles, magazine stories and even pictures.

Richard Joy was seen on TV several times when the family lived in Van Nuys. At that time he was employed with an electronic firm in the San Fernando Valley and has surprised many people in the manner that he could hold his own on his job.

In his home, he built his radio room, a half dozen cabinets more than six feet tall to hold his Braille library, his operating table and even his own radio transmitter and receiver. He has worked over 44 foreign countries and every one of our 50 States by amateur radio by using CW.

By use of a tactile unit which is somewhat in the form of a loud speaker cone with a ball in the center, he feels the impulses of an incoming signal and can copy about 25 words per minute by this method.

Rather than hold the Conditional type license usually held by handicapped persons, Richard went to the FCC office in New York City while operating his station, WA2NCX. He passed the examinations for the General class with ease.

An Eagle Scout, with a jacket full of merit badges, this young man can hold his own with anyone, be it a cook-out, swimming party, or handling a radio net.

His first assignment at Hewlett-Packard was that of making name badges on an engraving machine for every employee in the plant, which has been operating since May 1972.

He is now doing delicate assembly work such as putting lugs, or plugs, into wires, installing feed-through condensers and connectors into panel holes in circuit boards, wiring and soldering with a special tip-to-touch open circuit iron causing the current to flow.

Cooperating with the fuel shortage, Richard rides in a car pool to the plant and back home with a neighboring employee.

Hewlett-Packard, which flew Richard to Palo Alto in a company plane to attend a 10-day course in the use of the Optacon, is to be commended for giving a handicapped person a chance to make good in industry.

H-P is the sort of establishment that Rep. Charles A. Vanik had in mind when he introduced House Bill 8070, a bill to authorize grants for vocational rehabilitation services which under Title "V", or the new law, has several sections relating to the employment of the handicapped.

To Richard Joy, WB6YUE, his wonderful parents and the management of the Hewlett-Packard plant in Santa Rosa, our best wishes.

WB4IOB beats the odds

by George Mielke
News-Sentinel Staff Writer

The odds were against him all the way, but Matthew O. Kirby has finally become the first handicapped boy in Knoxville, KY history to receive his Eagle Scout Award.

And though he has been confined to a wheelchair most of his teen-age life, he didn't pull any strings or cut any corners to get it.

A victim of cerebral palsy, Matt has proven that faith and determination can lead to successful accomplishment regardless of the obstacles.

The Court of Honor Ceremony was conducted at the First Baptist Church where Matt has worshipped since a child. His 93-year-old grandmother, Mrs. E. O. Kaserman, played the piano. Buford Lemons, Scoutmaster of Troop 245, sponsored by the Northside Kiwanis Club, presented the award. Matt's mother, Oattie, wife of the late H. H. Kirby, stood proudly nearby.

It was a thrilling moment for the congregation of church members, fellow scouts, and friends; and for Matt, it was the crowning reward for many years of hard work.

The 23 merit badges he wears on a sash around his chest tell a touching story of struggle. The basketry badge, for instance, required the construction of an intricate weaving project that other boys will full coordination might have accomplished over a weekend. It took Matt about 30 hours.

But while others who would attempt to build the rope-woven chair might give out to their frustrations, Matt is always smiling, and never gets depressed. His mother said: "I've never seen Matt get the blahs or go through a "blue Monday"."

He earned his swimming badge entirely with his arms and didn't stop when the requirements were completed. He still swims three days a week. Earlier this year, he swam 60 laps in a "Swim-a-Thon" at UT sponsored by the International Swimming Hall of Fame to raise funds for local water safety programs.

He is also an expert at boatmanship (the result of another merit badge's challenge) and participates in just about all water sports short of skiing.

Another activity Matt enjoys is bowling, and he recently attended a kegler's tournament in Atlanta as Knoxville's Easter Seal Bowling League representative. He has a 134 average.

Perhaps the most significant benefit Matt gained through the Scouting program is his professional knowledge of communications and electronics, a benefit that he hopes will lead to a career in the field of radio and television engineering.

It all started when he went after his communications merit badge and learned the Morse Code. One thing led to another, and shortly after learning the basis requirements, he qualified for a Third-Class FCC license and assembled his own telegraph transmitter and receiver.

He now displays an FCC First-Class license certificate on the wall above his sophisticated collection of ham radio equipment and has made friends with hams all over the world. He has received several cards from airmen stationed at the South Pole with whom he has conducted many lively conversations.

Though he excels at a lot of things, radio electronics is his forte, and he has earned money for new equipment and parts by repairing television sets, stereos and radios in his home shop at 103 Woodrush Ave.

He said he would eventually like to work as a control engineer for one of the local radio or television stations, a job he already

knows how to do with experience at Fulton High School's FM radio station (WKCS)

He was graduated from Fulton two years ago, 15th in a class of 360. Some of the academic honors he earned include a perfect attendance certificate, certificates of recognition for radio shop, industrial electronics and vocational television, a listing in the 1972 edition of "Who's Who Among Student Leaders in High Schools of America," and the post of honorary president of the Fulton High Radio Club.

As a ham radio operator, with call letters WB4IOB, Matt has participated extensively in area emergency preparedness programs and has served as control manager for the East Tennessee Emergency Net. He also handles overseas telephone traffic by setting up patches between servicemen and their families.

In addition to all of these things, Matt has also held a part-time job at the Student Museum where he operates the closed-circuit television and audio system used to provide educational programs for children. How did he do it?

"I just love people and they love me back," he said.

(From Knoxville News-Sentinel)

Window on the world opens for quadriplegic

by Eunice Bernon, K8ONA

Today, Charles L. Fields (WB8RSW) is one happy fellow.

"But for a few years I had no interests," he said. "I just sat around."

Fields, 42, is a quadriplegic patient at the Veterans Administration Hospital on East Boulevard in Cleveland, Ohio. His outlook began with a visit to the ham radio shack in the hospital's Physical Medicine and Rehabilitation Department.

"First, I met our Wednesday volunteer, Pat Shreve, W8GRG," Fields recalled, "and we started assembling kits."

"Lucky for me, Stuart Campbell and Werner Sauber, W8KC, volunteered on Thursdays, so we could just sit and talk ham radio."

A year later when Fields said, "This hobby looks like fun, why don't we tackle it?" the volunteers promptly rallied.

Sauber (W8KC) prepared tape recorded code lessons, and Shreve (W8GRG) guided the eager student's efforts to build sophisticated Heath ham equipment.

Code practice presented a brief stumbling block until the late Dr. Roswell Lowry (K8ZBL), PMR chief, observed Fields' sidemotion ability and created an innovative approach for him.

Fields also learned to tune receivers with a "T" stick, slotted to fit over square and rectangular knobs. He was well on the way, ham radio-wise.

One would presume then that January, 1974 would have been a memorable date in Field's life, when he took the Technician

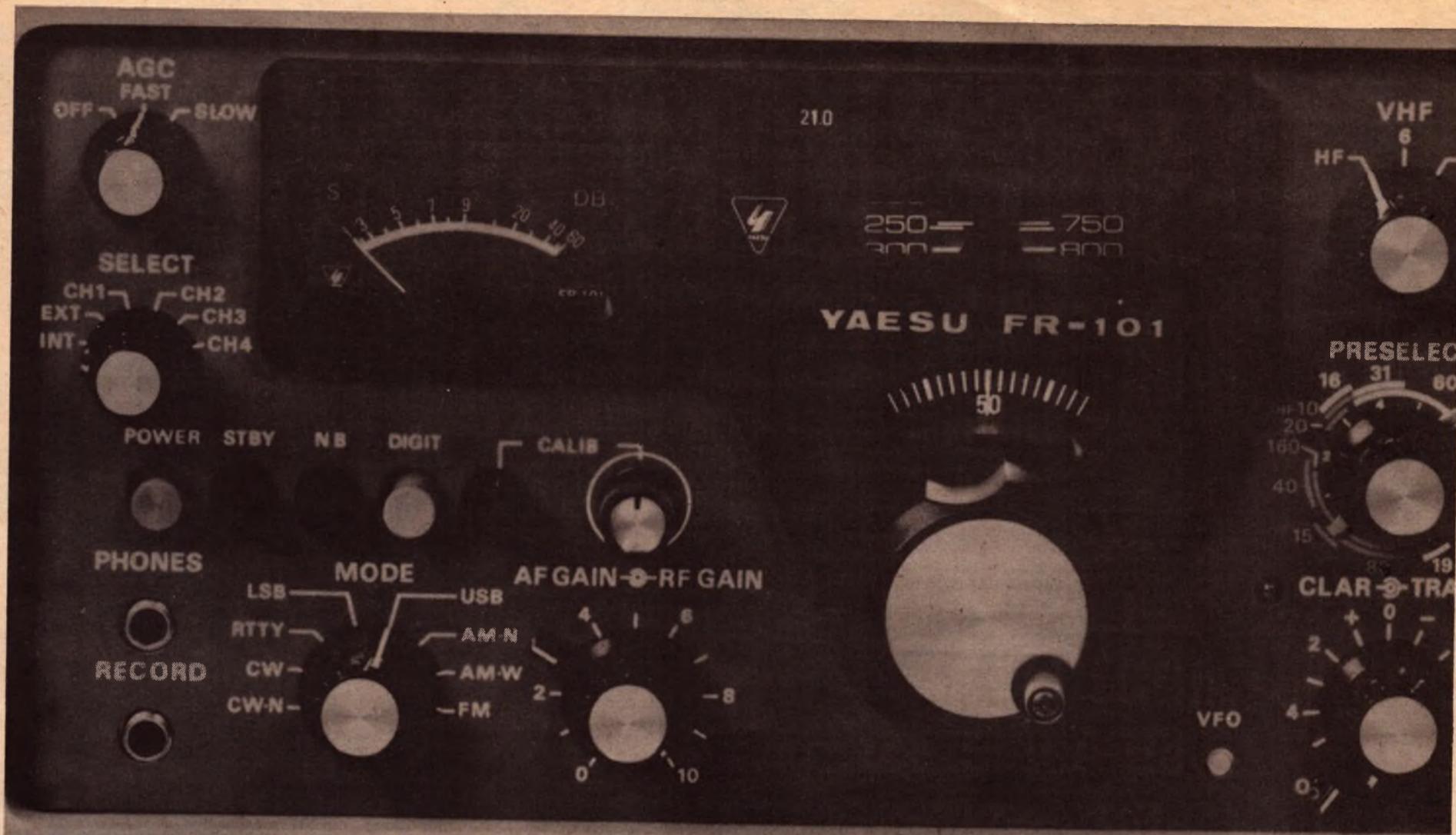
Class examination, but no, "It was March 9, when I opened an envelope, and there it was, my own ham radio license," he said. "It proved that, in some ways, handicaps can be overcome. Now I shall strive for higher goals."

Fields is eager to move up to General Class status so that he may check into the VAARS Net (Veterans Administration Amateur Radio Service) which is comprised of ham radio stations in VA hospitals in the United States. There is also the International Handicappers Net.

"I've listened so long, I feel I know all of these fellows," Fields said.

Fields is still thrilled over receiving his amateur radio license.

"The more I become involved, the more I realize there is to ham radio," he said.



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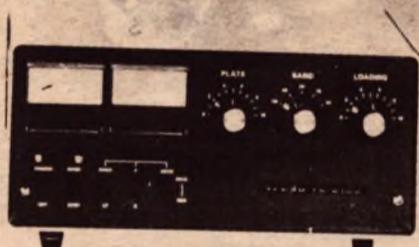


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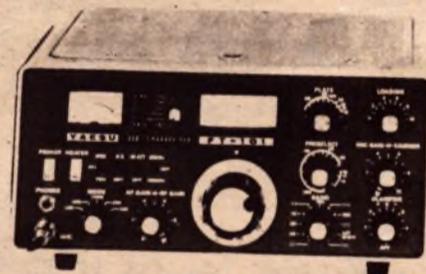
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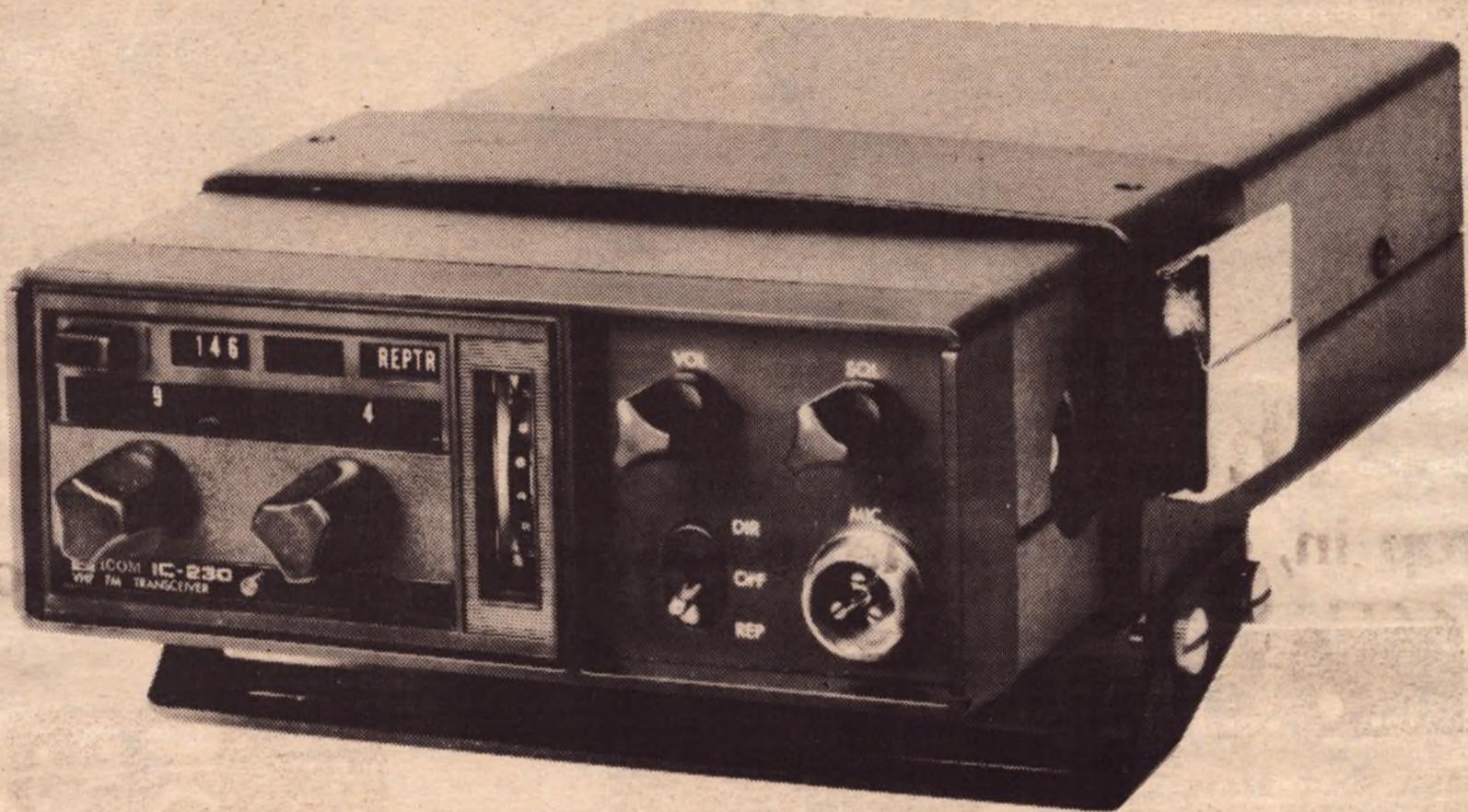
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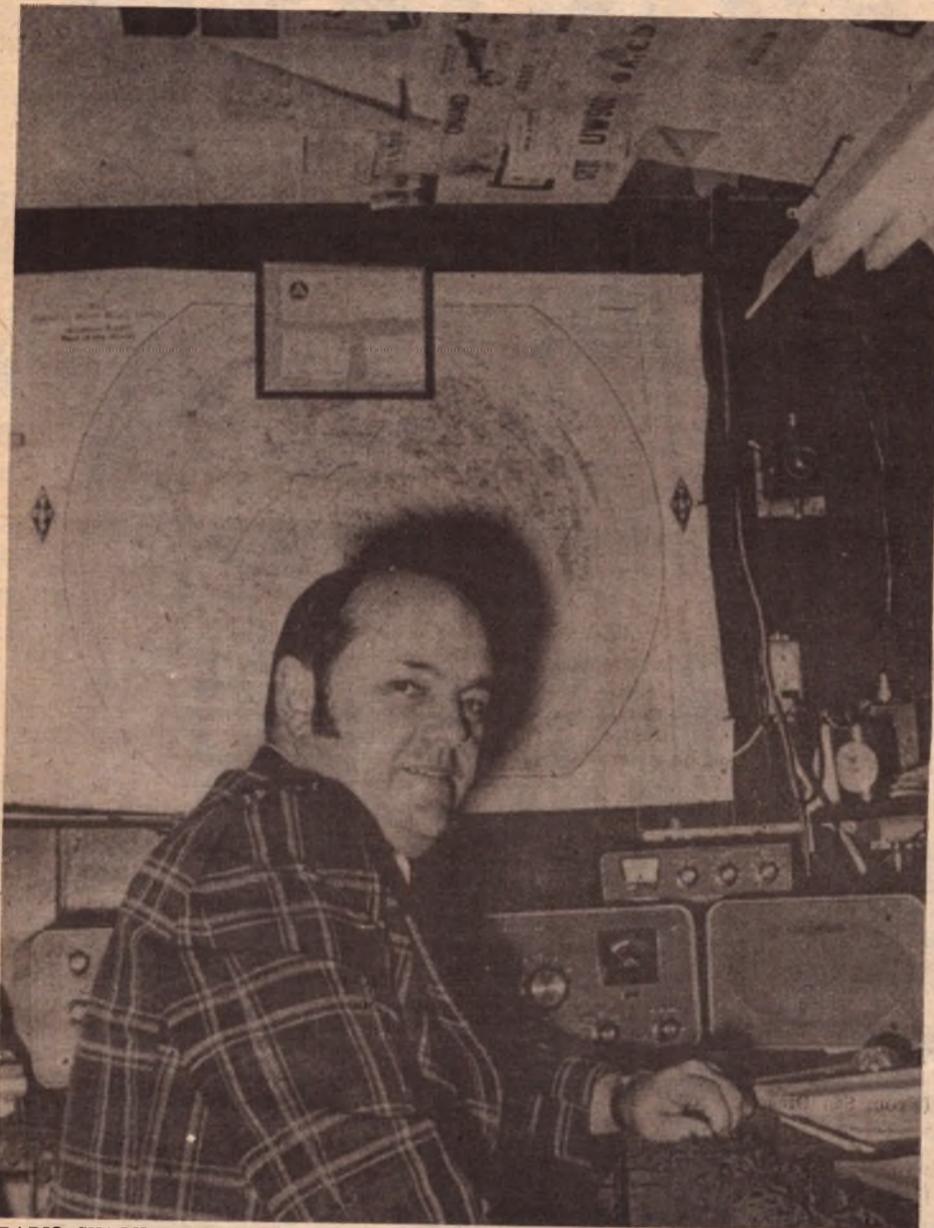
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Antarctica

by Marjorie Wellings

(From "The Daily Democrat" Woodland-Davis, Calif)

"The Worldradio News" is pleased to announce that Jeff Hilliard, WA6IOK, mentioned in the article below, has recently joined our staff on a part-time basis.



RADIO SHACK-Jim Hilliard with some of the amateur radio equipment he and son Jeff built together. The QSL cards on the ceiling are only a few received by the pair from all over the world confirming contact with other ham stations. (staff photo)

A young husband and wife, Gary and Diane Zumwalt are 8,000 miles apart and he has had mail from her only twice since late November. Yet they are in close and frequent communication, thanks to a Davis, Calif. father and son, Jim and Jeff Hilliard, W6GCS and WA6IOK.

Gary Zumwalt is in the Antarctic as part of a National Science Foundation research team headed by Dr. Jere Lipps of The University of California of Davis's geology department.

For the last three year, the Hilliards, amateur radio operators, have maintained a twice weekly contact with members of this team so that they could talk to their families and colleagues.

Jim got interested in the scientists in Antarctica when he read an article about Dr. Lipps, one of his insurance clients, in "The Daily Democrat". Although Lipps is a geologist, most of the students assisting him are invertebrate zoologists studying foraminifera, a type of protozoan which provides important fossil information to geologists.

The voices from New Palmer Station, in an inlet next to Bonaparte Point, came through to the Hilliards' Radio Shack the other night as if they were coming from next door. Messages were exchanged and then Bill Stockton, a graduate student in zoology who will be joining the expedition, took over the mike to discuss research and other problems with members of the team.

"Sorry to disappoint you," said one South Pole researcher, referring to an inverte-

brate "find" discussed in a previous conversation, "but they weren't poronids after all - they were polychetes".

With Ted Delaca, a PhD candidate on his third trip to the Antarctic, but returning to Davis soon, Bill discussed registration so that Ted won't face late charges.

Then for Gary and Diane Zumwalt, Jim made a "patch" - connected Diane in her Davis home by telephone to the radio set so she could talk to Gary. At first the conversation had to do with books and research problems - Diane is a research associate of Dr. John Duniway in UCD's plant pathology department.

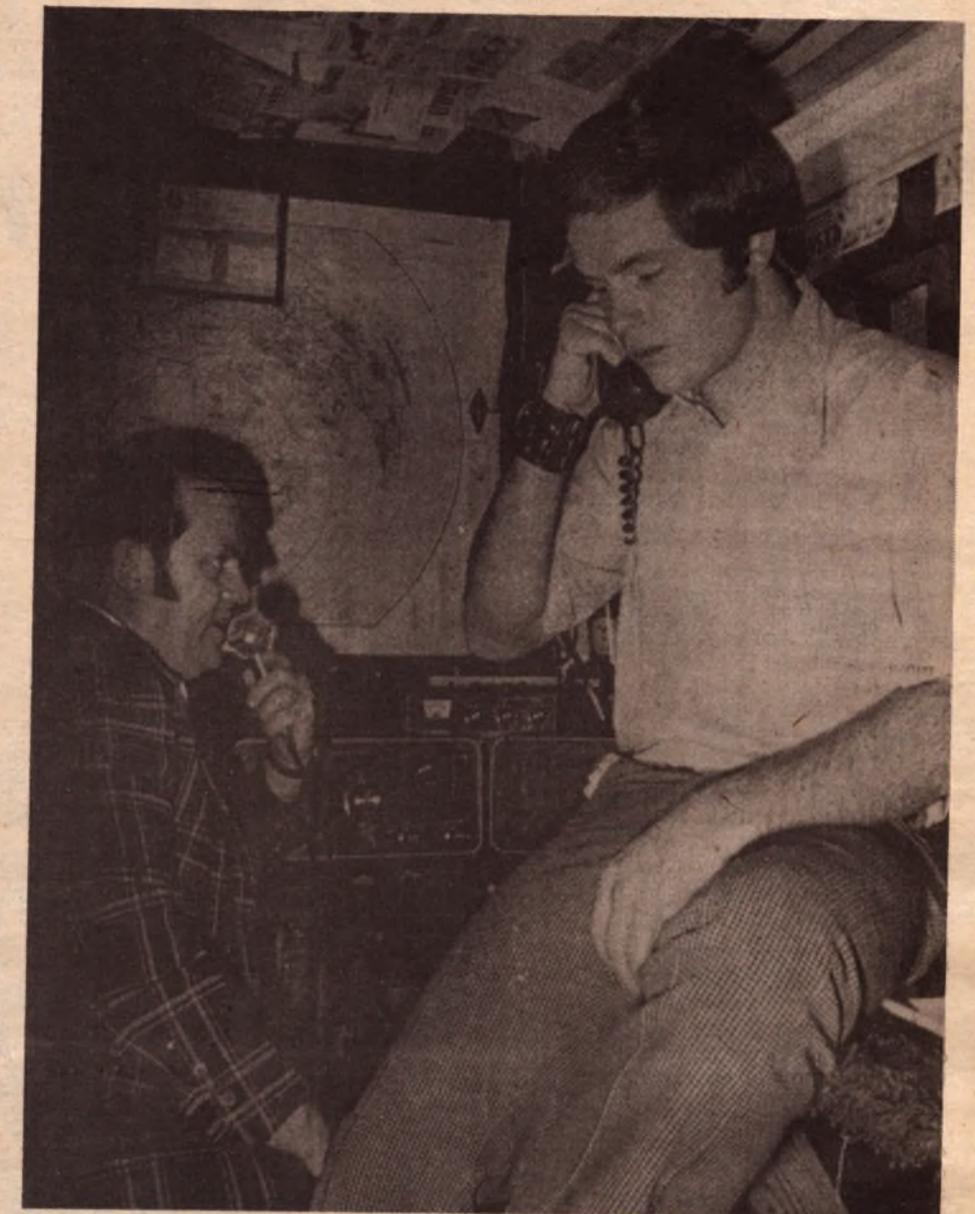
But soon Diane turned to more wifely talk about Gary's return - "I'll sure feel a heck of a lot better when you're on your way... I have nightmares that you'll be snowed in..."

"You sound kind of tired."

"I've been having trouble with my sinuses," Gary said. "We've been doing a lot of diving."

Jim Hilliard emphasized that although the whole world can listen in, these conversations are considered private, so we asked for Gary's and Diane's permission before repeating these comments.

After Diane had finished talking with Gary, Jim let us talk with him briefly. "I want you to know how emotionally dependent we are on Jim's calls," Gary said. "We really appreciate his assistance. Since I arrived here, there have only been two boats that carried mail. Another one is



CALLING ANTARCTICA-Jim Hilliard(W6CGS) talks to scientists at New Palmer station while Jeff Hilliard, (WA6IOK) listens on connecting phone. (staff photo)

due day after tomorrow. In between, Jim is our only means of communication with our families."

Diane said, "Without Jim, the separation would be so much harder!"

Jim Hilliard became interested in ham radio while in the Air Force between 1946 and 1948. He spent 18 months in electronics school and served at different times as an airborne radio operator, a radar technician and a radio technician.

Most of his Air Force time was spent in remote outposts in Hawaii, and he feels that the relative lack of communication there influenced his interest in amateur radio. He obtained his first license while there, and built a station from scratch on Mt. Kaala, up above Wheeler Field and Schfield Barracks. The men would stay there for as long as a month at a time, going back and forth by cable car. During this time Jim talked every week to his parents in Martinez, and thinks that this period helped him to relate to the problems of the scientists at Palmer Station.

"One of the provisions of licensing by the FCC," Jim Says, "is that the 'ham' agrees to use his knowledge and skill to the best of his ability for public service." Under FCC regulations, there is no charge for any services performed by amateur operators.

After World War II the area of amateur radio expanded greatly. During the war, the government had called on many hams for their services. "Amateur Radio is not just tinkering in the garage." Now some ham operators use TV, or hook

into satellite communications. "There are many facets to the hobby."

For a while, as Jim and Marge Hilliards' four boys were growing up, Jim became less active in his hobby. He was developing his career in insurance with State Farm, and his equipment had become dated. Hams were making the transition from AM to SSB, and there was incompatibility in trying to communicate between the two systems.

Then son Jeff, who was 15, took a radio class at high school in Concord and received his license. There is no minimum licensing age-Jim recalls one 9-year-old with a license. But there is a stiff exam, and being able to take Morse code at 13 words a minute is the big stumbling block for many.

After Jeff became licensed, he earned all of his own money to buy the equipment which he and Jim use. He has worked as a TV repairman and for a burglar alarm company and is a reserve police officer in Davis. Now 20, he attends American River College.

The Cuyahoga (OH) Amateur Radio Society Repeater (WB8CRP -22/82) was the primary communications link for the annual door-to-door march for Muscular Dystrophy recently and more than twenty-six mobiles participated throughout the country. Amateurs from each of the local repeaters joined in this project, spending more than six hours in the final drive for this worthy campaign.

de George Hinds, WB8JYR

Field Day

by Bob Richards, W6MHK

Today, Field Day does not produce the participation or enthusiasm it once enjoyed.

Full club participation is for the most part lost. Only a small minority actually participate.

It is my opinion, as one who has held a license continuously since 1935, that there are one or two chief reasons.

The uppermost reason that has caused the present dilemma of low participation, is lack of real purpose. Contests are fine, but in order to have full club participation there needs to be enthusiasm created by meaningful purpose.

Once Field Day had a great purpose in existing-emergency communications. Emergency Communications, in order to be meaningful, needs to be related to people, not just to radio amateurs.

It should be remembered that Amateur Radio is classified by the FCC as a public service. Civic officials and the general public are the people that I refer to.

To justify our existence as radio amateurs to continue to exist as radio amateurs, we must interest civic officials and the general public in our ability to help during times of emergencies. Then perhaps when negative pressure is put on Amateur Radio, we will have a better position.

One reason for failure to interest the public and fellow amateurs in Field Day is the site of our operations. It is generally at some site that is remote and inconvenient to get to. The general public, officials, civil defense people, many fellow amateurs (especially older ones), will not visit the operation. Why should they go a considerable distance to some isolated spot, put up with rugged terrain, dust, etc., just to see an operation that is not geared to let them participate, be served, or entertained?

An isolated spot is inconsistent with real needs in an emergency. An U.S. radio amateur, during the earthquake disaster in Nicaragua, rolled his Volkswagen van from a neighboring country to Managua, the site of the tragedy. He set up a communications transmitting site. Not from some isolated location!

Also, the general public is not even invited to Field Day. What kind of public relations is that? No wonder we sometimes have trouble with the public.

Question: How many of the general public or civic officials have ever visited your Field Day site?

Most hams don't care to go to some remote and inconvenient site just to see how many U.S. and Canadian amateurs they can work. They can do that at their homes in comfort, with none of the inconveniences associated with Field Day. There has to be more purpose than that.

Also, now we have an energy problem, and a remote location doesn't help to solve the transportation problem for hams and the general public.

I believe we can make the general public aware of what Amateur Radio means to the nation and make friends with the public, officials, and civil defense personnel.

We can create a great interest by hams in Field Day by giving it meaningful purpose. It can be exciting again!

(From "Overmodulation" Ventura, CA)

Public Service is the primary reason for allocation of amateur radio frequencies... Art Ross, W5KP

"What a wonderful thing the ham fraternity is..." Helen Haynes, WB0HOX

FIELD DAY

All kinds of talent and non-talent can be used.

1. It is good leadership training. Young people: Sign up to be in charge of a band.
2. If you are the troop cooperating type, work within a group.
3. If you are a lone genius type (or ordinary guy) you can find a spot too.
4. If you like to do unselfish fix-it jobs, we need you.
5. If you have a yen to cook, we need you.
6. If you like to log, we need you.
7. If you like to camp out all night, we need you.
8. If you would like to operate until you are exhausted, we need you.
9. If you would like to operate just 5 minutes, we need you.
10. If you like to play cards, visit, or show visitors around, we need you.

11. If you want practice on handling emergencies, we need you.

12. If you like to tabulate things, we need you.

13. If you want to learn more concerning antennas, or show others how to do things right, we need you.

14. If you are bored with a non-purposeful existence and want a feeling of accomplishment, we need you and you need us.

Young people: We can tell you about several men who were avid Field Day operators in their youth with our amateur club. They learned to cooperate and deal with situations enabling them to hold important positions with firms in later years. The United States needs people who know how to deal with Field Day situations.

Members and all kinds of guests are welcome at Field Day.

("Carrier" Mt. Diablo RC)

TOP FIVE TO KEEP ALIVE

by John P. Trent, KL7DG

TWENTY METER EMERGENCY FREQUENCY WINDOW

1. This resolution seeks voluntary support by amateur radio operators of the world to keep an open window for emergency communications in the top five kHz of the twenty meter amateur radio world-wide frequency allocation.

2. The top five kHz between 14.345 and 14.350 MHz could offer, through self-regulation of the amateur radio body, a communication window for emergency measures.

3. Emergency measures would include brief testing of battery-operated communication equipment. Such testing would not exceed one minute on the air for testing and calling. Overall contact time for test communications with another station would be limited to three minutes. No time limit for actual emergency communications. There would be no limitation as to authorized mode of emission or power so long as the minimum power consistent with testing was maintained.

4. The "Top Five To Keep Alive" twenty meter emergency frequency window would offer a small cluster of frequencies on a twenty-four hour basis to save lives, preserve health and serve public necessity in a convenient portion of a world-wide frequency allocation. It would be self-disciplined and free from interference by other useful but less urgent types of amateur radio communications.

CHECKLIST FOR EMERGENCY SUPPLIES

station log	dishes/silverware
message blanks	water purification kit
carbon paper	toilet articles
scratch pad	towel/wash cloth
pens, pencils,	wash basin
eraser	mirror
electric lantern	soap, hand/laundry
headphones/junction	can/bottle openers
box	T-paper
candles	medicines as required
waterproof matches	alarm clock
map	3-days gas/oil/water
transistor BC set	tow cable
3-day food supply	syphon
3-day drinking water	jumper cables
hibachi/charcoal/	shovel
fluid	hatchet
3-day battery supply	first aid kit
test equipment	flashlight
tools	sleeping bag/
soldering iron, 12v	blankets
soldering iron, 120v	foul weather
alignment tools	gear
spare tubes	
fuses	

RATE YOURSELF ON EMERGENCY PREPAREDNESS

1. Do I have a 3-day supply of food and ready to go?
2. Do I keep my gas tank at least half full at all times?
3. Have I arranged with friends or neighbors to assist my family?
4. Do I have a supply of operating materials (msg blanks, pencils, etc.)?
5. Do I have a battery-operated transistor BC radio with spare batteries?
6. Do I have a gas-engine generator for emergency power?
7. Do I have a portable antenna for 75/40 10, 6, or 2 meters?
8. Do I have a completely portable rig that can operate independent of car?
9. Do I have call sign license plates to assist in identification?
10. My assembly point is _____

Scoring: Give yourself 10 points for each affirmative answer. Passing score is 70. 100-superior, 90-excellent, 80-average, 70-average, under 70-?

(From San Diego AREC)

"Amateur Radio lives only for the service it can render the public in time of need" ... Louis Rush, K6QXN

WHAT DO YOU DO WHEN THE LIGHTS GO OUT?

What kind of emergency operating capability do you have? Are you planning to jump in the car and go mobile? Fine, but what about the club station, or your repeater? Do you have generators that are run regularly, and checked out mechanically?

Why don't you discuss this at your next club meeting?

Many of you have been actively working on this problem. By open discussions you could help your members, and other clubs, too.

(CCRC "Circle")

RALLY POINT DISASTER PLAN

The "Rally Point" concept is usually implemented by your County Emergency Coordinator, by naming specific points where communication and disaster workers will report in times of emergency. It is generally considered the best answer for mobilizing disaster fighting forces, including emergency communications.

Your club president should arrange a meeting with your Emergency Coordinator, find out where these "Rally Points" will be in your area, get the information to the members, they try a few drills while you still have the time.

(From CCRC "Circle")

POWER

Re: Field Days and other outdoor emergency exercises and emergency power sources...

Though a car engine can keep a mobile rig on the air almost indefinitely, some thought could be given to obtaining maximum use of the power available via power takeoffs.

Rear wheel power takeoffs via pulleys.

Car rear up on stands or cement blocks.

Pulley power takeoffs bolted via brackets to wheel lugs.

With an assortment of pulleys and assortment of belts, an emergency crew could stay on the air in event of breakdown of their main AC generator gasoline engine.

Emergency groups who cannot afford a monster diesel-type AC generator but who may have access to an AC generator might consider powering the AC generator via car power.

Emergency groups fighting extended disasters might remember that there is generally a surplus of abandoned vehicles and each vehicle represents a prime source of power. Gasoline available via your handy syphon hose; bypass the ignition switch with a jumper wire.

Bob Leach, WB6KKG/4

(From "Florida Skip")

Found boy

by Emanuel Marcel, WB2FON

Little Asam Goldman did not come home from school.

His parents, Goldie and Shay Goldman, became more and more concerned as the clock ticked on and the sun set. The police and school officials had been called but to no avail.

As the usual means of finding his son were becoming exhausted Adam's father, Goldie, WA2MJC, called upon his friends and fellow hams of the Long Island Mobile Amateur Radio Club (LIMARC) for assistance. The time was a very dark 8:25 p.m. and within minutes the word was spread and 33 hams were mobilized and responding to their brother ham's aid. Jay Rosenzweig, WA2APJ, took control of operations on the club repeater to direct the mobiles to the scene. As each unit approached the area he was instructed to switch to .52 simplex where he received search assignments from Manny Marcel, WB2FON. Harry Marschausen, W2VFJ and Charlie Anzman, WB2PVH, provided liaison with the family, land phones and radio.

The real heroine of the evening was Barbara Flinn, WA2OFF. On her suggestion the family started a roll call of Adams's fellow Cub Scouts. On the second call Adam was found, and by 9:10 p.m. he was on his way home to very happy and relieved parents. All units were released at this time and the repeater returned to normal operation.

(From LIMARC "Log")

WEATHER NET

by Merle Kachenmeister, WA8EWW

The Tri State Severe Weather Net Operation Skywarn is now in effect until November on these frequencies: 01/61 - K8ALB repeater. 34/94 WR8ACT repeater. 6-meter FM 52.525 MHz. 6-meter AM 50.325.

Present policy of the National Weather Service is a change from past years. Storm and tornado watches will not be issued to the public through the news media. All warnings will be issued in the traditional way. The watches will be issued to weather spotters including the amateur radio weather stations.

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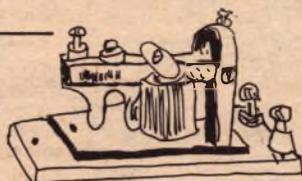
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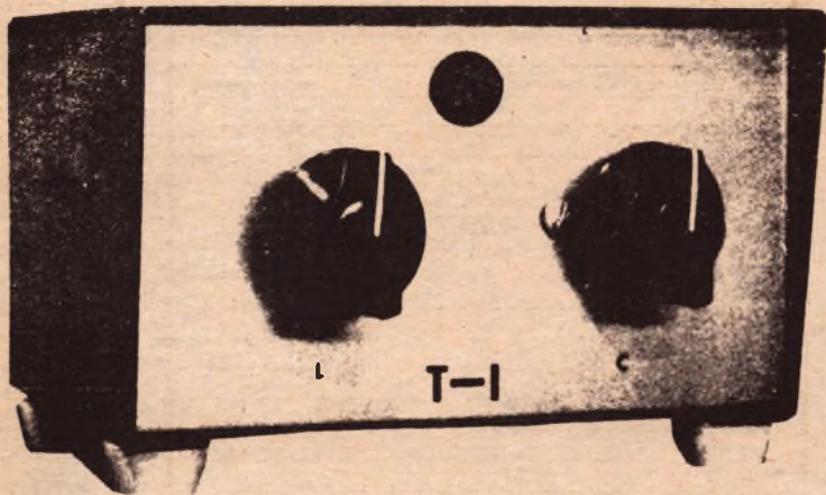
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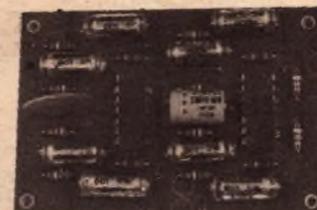
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We have what we think is the finest CW filter available anywhere. The 80 Hz selectivity with its steep sided skirts will allow you to pick out one signal and eliminate all other QRM and QRN. Simply plug it into the phone jack or connect it to the speaker terminals of any receiver or transceiver and use headphones, small speaker, or speaker amplifier. Better yet, connect it between any audio stages to take advantage of the built in receiver audio amplifier.

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DIMENSIONS: CWF-2 2"x3" PC board; CWF-2BX 4"x3 1/4"x2 3/16" (black winkle steel top, white aluminum bottom, rubber feet)

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by Ward Jensen, WØTLE

The Handi-Ham system of Minnesota is an organization devoted to the purpose of interesting and helping the physically handicapped to become radio amateurs.

It's a completely volunteer group consisting of handicapped and non-handicapped. This Minnesota corporation numbers more than four hundred people, both amateurs and those studying for licenses. In addition, there is a Handi-Ham System of Iowa with upwards of one hundred people involved in this work. Hopefully, the System will expand to other states as organizational help is found.

Life for the handicapped might be bleak indeed were it not for organizations devoted to their welfare. The Minnesota Society for Crippled Children and Adults is the Handi-Ham system's foster parent and supports the System's work and the Handi-Ham System encourages its proteges in their efforts to become one with the "ham fraternity".

Many Handi-Hams are active in "PAW", the Pico All Day Watch. "PAW" was organized under the original "Piconet", which provides emergency service to 13 countries often hit by severe weather in southern Minnesota. "PAW" has spread over several states and has become a by-word at 3925 kHz on 75 meters.

With much pride we proclaim the idea for "PAW" was originated by one of our Handi-Hams, Don Johnson, WAØEPX, of Utica, MN. Its present "Captain" is severely handicapped Leroy Youngs, WAØYVT, of Tracy, MN.

Many times we hear the question, "What does PICONET stand for?" We have simply added "ET" to the word "PICON" which is derived from the mandate of Congress to the F. C. C. -- "to regulate ALL communications in the Public Interest, Convenience Or Necessity--and this after all is the basic reason we are HAMS.

One of our basic human needs is to feel needed - this need is perhaps felt more deeply by the handicapped than the rest of us. Perhaps in his own mind exists the thought, "I don't feel needed, and I have few if any friends." To those, too few, that have found their way to amateur radio, they found friends - they also found they were wanted and needed, they were given COURAGE and they found there were things they could do to help their fellow men. They could handle traffic, make phone patches, and they could be THERE when an emergency arose!

We hear many of them on the air without realizing that they are handicapped - in fact, they are NOT handicapped in their participation in ham radio - here they can be like the rest of us and do everything the rest of us can do -- no, they are not handicapped as HAMS! They can do something

for the rest of us and they have fun doing it!

The Minnesota Society, MISCCA, maintains a beautiful summer camp at Cedar Lake near Annandale, MN, where the System holds two events a year. A three day event in May is known as the Handi-Ham May Convocation and a week-long event in August or September called "Radio Week". The Handi-Ham System, also joins with the PICONET and several southern Minnesota radio clubs in holding a "Winter Hamfest" in Faribault, MN, on the first Saturday in December.

Do our Handi-Hams get to these events? They most certainly do - and they turn out "en masse" to meet face-to-face with their week-in, week-out contacts via the PAW and other nets.

Three amateur radio stations are in use by the Handi-Ham System having the call signs, WØZSW, WØEQO, and WØQWE. These call signs have special significance to the members. They are retained by the System in memoriam as tribute to the System's founder, its first steering committee chairman, and its first president after the System became incorporated. WØZSW, now in use by Assissi Heights, Rochester, MN, was the call of Ned Carman, founder of the Handi-Ham System who was greatly revered by all its members. WØEQO was held by Ottem Miller of Faribault, MN, who was the System's president at the time it became incorporated as a non-profit, charitable institution. His call letters were obtained by the Handi-Hams for use at Camp Courage where the System has amateur facilities for both novice and regular ham activities and a carrier current broadcast radio for the use of the campers. WAØQWE, now in use at the Courage Center Headquarters

of the Handi-Ham System, was the call sign of Charlene Mott of Oronoco, MN, who had the title of Steering Committee Chairman when the System was first organized. These "Silent Keys" contributed much to the System's growth and present stature.

Contributions to the Handi-Hams System go into a pool of equipment which includes material for antennas, code oscillators, receivers, transmitters, transceivers, etc., which the system provides on loan to its students and members except in cases where the student or member can afford and prefers to purchase his own. Cash donations as well as equipment contributions are tax deductible. Donated equipment which is not directly useable by us, is converted into cash by selling it at a reasonable market value and the proceeds are used to procure useable gear. Old QSTs and other magazines can be used and hams everywhere are invited to contact us.

Would you like to be a member of the Handi-Ham System? It's really very easy. There are no dues, except what you can do - and we can use much, so very much help. The only thing we ask is that you be a licensed ham and fill out an application form. Just write to us and ask for one, we'll take it from there.

In filling out your application, you will find we ask what you are willing to do, perhaps putting up an antenna, helping with the code or theory, or teaching the newcomer how to operate his rig or how to conduct himself on the nets. Don't be surprised if some day you get a letter from our Student Chairman asking you to get in touch with a prospect living near you. This is the way it works and we are confident that Amateur Radio itself is the benefactor.

Ham cupid

by Eunice Fernon, K8ONA

Cleveland ham radio operator Joe P. Speroni (W8NEQ) was listening to Navy ham station KC4USN at the South Pole. He heard the operator say, "We're looking for a telephone patch into Cleveland."

Speroni quickly volunteered his services. He was asked to call Miss Barbara Peckler, a teacher at Hawken School here.

In a few moments, Miss Peckler and her fiancé, Howard Singer, began conversation via ham radio.

Speroni continued to bring the young couple together by radio until atmospheric conditions reduced nightly schedules to weekly contacts.

With the coming of his wedding, the groom-to-be arrived in Cleveland. One of his first gestures was to call his benefactor, Speroni, and extend him a special invitation to a pre-nuptial dinner and a meeting with the bridal party.

Singer, a geophysics research associate from UCLA said, "I've been stationed at the geographic South Pole collecting data to analyze the earth's tides, vibrations, crust and interior.

"From last Feb. 13 until Nov 7, it was impossible for planes to reach us.

"Our only contact with the outside world has been via ham radio. Imagine, no mail.

"Contacts with my fiancée were made possible through Speroni (W8NEQ) who tried his utmost to help me and all the others.

"On behalf of all of us, I'd like to thank Joe and hams all over the world for their efforts in bringing families together."

Singer was invited to check into the Quarter Century Wireless Association Net where he spoke of four years' isolation

and temperatures that ranged from minus 50 degrees to minus 113 degrees.

Speroni enjoys the public service aspect of his hobby. He is retired from a career in the Air Force where his specialty was communications. A son Joe, Jr. (W8-NMK), is employed by Sperry Rand Corp. in Tokyo.

Speroni, licensed since 1935, operates Collins equipment on the 10, 15, 20, 40 and 80-meter bands. He is affiliated with ARRL and QCWA.

Aid march for mankind

A March for Mankind was held by the Amigos de las Americas group as a fund raising effort.

The march involved a nearly 20-mile hike all over Santa Barbara, Calif., beginning at City College, and ending at East Beach. Refreshment stations were provided along the route for the benefit of the hikers. Emergency first aid service was provided by American Red Cross volunteers, and these included both fixed and roving aidmen.

Communications for the event were provided by several of the 2-meter gang. Services included coordinating the movement of checkpoints as the marchers passed, and maintaining liaison with roving emergency patrols. Fortunately, no serious problems developed, but several weary walkers were given rides home.

Participating were: Ed Shedd, K6EAQ, Jim Larsen, WB6DKE, Roy Moline, WB6THO, Dave Johnson, WB6QDS, Pete Langlo WA6PFF, Reg Dawe, W6HUT and T. M. Brown, K6HTX. WB6's Albert Steinbrecher (DBD) and Dean Dods (IYW) loaned equipment.

(From Key-Klix)

Don't sell amateur radio short

by Carl Drumeller, W5JJ

There's a tendency, what with all the whoop-and-holler about CBers stealing frequencies, to take a sad look at Amateur Radio. Don't fall into that trap!

Amateur Radio is far from being a dying cause. It's growing. It's becoming better organized, with more and more aligning with the ARRL. The united front gives us more clout. It takes a bit of the opposition to arouse people into actively fighting for their cause. And it takes what the British call "Her Majesty's Loyal Opposition" to keep organized amateur radio on its toes and fighting for what the informed majority considers "right".

True, the list of Silent Keys tells us every month we're losing some of our fine Old Timers, those stalwarts who fought the battles for radio amateurs over the years and who shaped Amateur Radio into its present form. We owe them a great deal.

But we also owe an equally great obligation to those new amateurs who are coming on. Our obligation is to hand over to them an Amateur Radio Service that's as pro-

misg of great fulfillment as the one we received from those who came before us.

And there are many coming on. Have you noticed the type of persons who are taking training at various amateur radio classes? They show a cross-section of life. They're young chaps, but there are many older ones too. All are motivated by a common drive; To demonstrate qualification for an amateur radio operator license.

A group was discussing amateur radio operators and taking note of the fact, as a rule, they were just a cut above the average cross-section of life. Why, it was asked? The consensus was that the need for a spirit of dedication, a dedication to stick to and to master a discipline was the filter that eliminated the dilettante, the piddler, the wishy-washy type who never sticks to any cause that requires sustained effort to achieve success. (In case you're wondering about bias, not all of that group were radio amateurs!)

Be proud that you're a radio amateur!

(Collector and Emitter)

HILLSBOROUGH AREC

by Wayne Tope, WB4TUP, EC

Members of the Tampa Bay Repeater Assn. and AREC members were called upon by the Sheriffs Dept. of Hillsborough County to assist in a search for a lost child. The amateurs were asked to provide radio communications.

Over 3,000 persons (amateur and non-amateurs) searched, but the child was never found.

Participating were: James E. Hinchee, (K4RMU), WB4TUP, Joseph Hogan, (WF4TUR), Albert Cabrera, (WA4WZW), K4USE, and Robert Napier, (WB4KLW). (From "Florida Skip")

The Canadian Council of the Blind honoured Peggy, VE1ZY, at a "Peggy Searle Night", at a banquet and dance in Charlottetown P. E. I. Although the event was planned for months, Peggy was taken completely by surprise. She was presented with a corsage and an engraved silver pin, in recognition of her work with the blind and other organizations. Peggy was the first blind YL in PEI to receive her license. She was also to become Worthy Matron of the Order of Eastern Star. The Girl Guides of Chatham also honoured Peggy with a talking book, for her excellent work with the Guides in teaching basket weaving and assisting with various badges.

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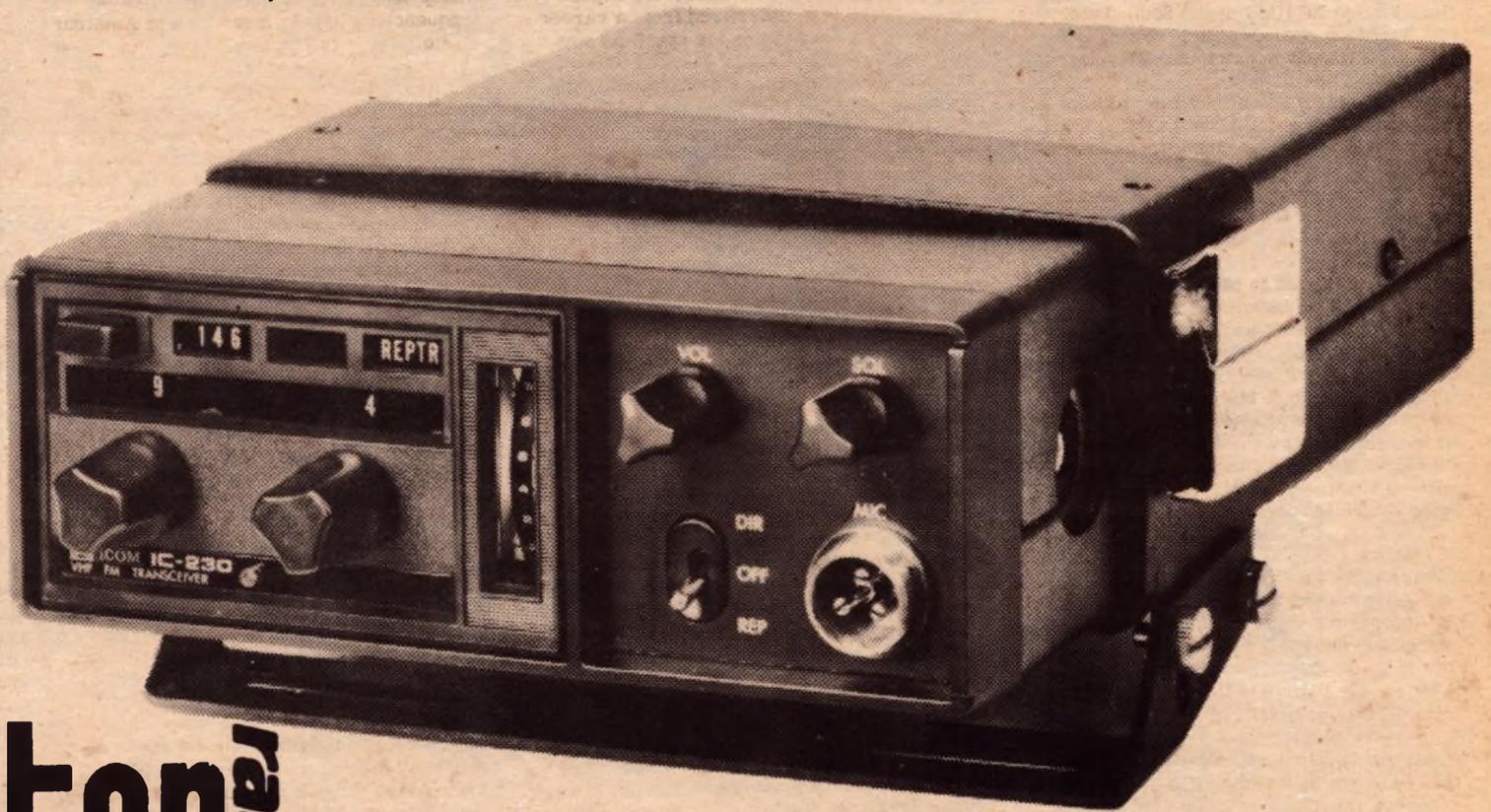
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Gerard, HB9AW/W6QAU is now ill in Switzerland and I am sure he would welcome cards from his friends, although I am sorry to say he is very unlikely to respond to them. His QTH is: Gerard de Buren c/o Mrs. Suzanne de Buren, 20, Ave. Calas, 1211 Geneva 20 Switzerland. (de Lyman Rundlett, K4ZA)

The Jarhead Net is composed of retired and ex-marines. They meet at 1200Z every Saturday morning on or about 7.170 MHz. Once a Marine, always a Marine...

"A Light on the Seaway" a book by Ethel Williamson, (VE3DTW), has gone into its fifth printing. She has received congratulations from the Queen. Ethel gave permission to Marge Huston, (VE3AIZ), to put the book into Eraille. It is also being put on tape. Two chapters were read on the CBC on Canadian Short Stories.

Having trouble quieting down your mobile radio installation? Request a free copy of "Giving Two-Way Radio Its Voice" by writing to Champion Spark Plug Company, Automotive Technical Services Department, P. O. Box 910, Toledo, Ohio 43661. This 16-page booklet tells one how to identify and eliminate mobile radio noise.

It is with deep regret that I have to announce the death of our good friend HI8-LPN, Dr. Nelson Ney Lazala P. on 26 February, 1974. His death has left an opened space in the bands, especially in CW where Nelson was most active. Anyone who would like to receive QSO confirmation from HI8LPN before 2/25/74, please send your QSL card with SAE and 2 IRC c/o HI8LC, P. O. Box 88, Santo Domingo, Dominican Republic. For any correspondence to his relatives, send to P.O. Box 1688, Santo Domingo, Dominican Republic.

The breakfast bunch meets every Saturday at the Hamburger House in Clairemont, (San Diego, CA) at 9:00 a.m. All hams and aspiring hams are invited for a morning of good food, fine talk, and companionable people.

I work for the U. S. Postal Service (no jeers, please!) I've been trying for some time to obtain permission to set up an amateur radio station in the main post office here in Portland. No luck yet, but still trying. It seems that such a station would be handy and valuable in case of an emergency since most post offices in major cities have reliable power systems, a good-sized roof on which to place antennas, and are centrally located. I would like to know if any post office ham stations currently exist. de Jack Rubeck, K7VKR

Ellen Armstrong, (VE6KU), President of the Business & Professional Women's Club of Alberta, was recently inducted into the Agricultural Hall of Fame at the Provincial Museum and Archives.

George H. S. Williamson, K6YGN, who is slowly but surely inching Jet Propulsion Laboratory ARC Club Station W6VIO towards WAS and DXCC (using only QRP) has a new distinction. On March 16, he was ordained a Priest of the Episcopal Church at St. Paul's Cathedral in Los Angeles. It's now more appropriate to refer to him as "Father" now rather than OM.

146.16/.76	Balto-Wash. Corridor
146.22/.82	S. Eastern Shore
146.25/.85	DC, suburbs
146.25/.85	Havre de Grace, NE MD
146.28/.88	DC, suburbs
146.31/.91	DC, suburbs

Key clicks and chirps are old hat but Walt Corteg, K8DPM, has come up with a new one. How about a power-supply chirp? Walt had some trouble with his TR-4 in his car. It kept blowing fuses on the DC supply but was ok on the AC. He took it out with the intention of returning the supply to the factory for an overhaul job. However, before he tried to pack it, he opened it for a check and found a cricket had gotten into a relay and held it open. Of course the poor cricket was dead so he really couldn't chirp because he was fried but Walt tried but got no chirps.

Ted Wilson K2EP/4 of Casselberry, Florida advises there is now a new Mosaic Amateur Radio Net (MARN) in Florida (and elsewhere) that meets at 8 p.m. EDT, Thursdays on 3.960 or 3.957 MHz. All interested amateurs may contact Ted on the above sked for details.

The FCC is issuing "pink tickets" to mobile stations which are not identifying the call area in which they are operating. Proper identification requires the operator to say: "Mobile _____", giving the assigned number of the call area in which he is operating mobile.

Interested in Moonbounce? - Or potentially interested in it? Eimac has a series of booklets on the subject, written for amateurs. They are serious, technical, and complete. Some titles available:

Almost Everything You Want To Know About Moonbounce;

Locating The Moon;

Moonbounce Operating Aids;

More On The Moonbounce Universal Window For 144 MHz.

Write to Eob Sutherland, W6PO
Eimac Division of Varian
301 Industrial Way
San Carlos, CA 94070

Next time your friendly neighborhood serviceman hangs the blame on you for getting into somebody's hi-fi, electronic organ or other audio channel, have a copy of the FCC Bulletin "Interference to Audio Devices" dated April 14, 1969, on hand.

In it, the Commission points out that home equipment manufacturers believe it to be an unfair cost to the majority of purchasers to include the type of circuitry and shielding required by the relatively few electronic devices which encounter strong RF fields. The complainant should "contact the dealer or manufacturer of (the) audio device for assistance." says the FCC.

(Mike & Key)

Next month's issue of this paper will be the third anniversary of "The Worldradio News"

CANADIAN OPERATING PERMIT

Applications for "Certificate of Registration of Radio Station License of United States of America for Operation in Canada." may be sent to the following address: Department of Communications Radio Regulations, 55 St. Clair Ave., East Toronto, 290, Ontario, Canada.

When I renewed my permit this spring, the department extended it to the life of my license. In other words, it is good for five years instead of one. Saves the trouble of writing every year.

by Max Pierce, K8DYI

(From "Fulletin" Detroit Amateur Radio Association)

HAMS CONCERNED ABOUT HAMS

by Art Mayoff, VE2AQV/W6

Most guys will go out of their way to help a fellow ham, but the recent happenings at WB6YBE deserves special recognition.

My little gremlins found that Peter Strauss, WB6YEE, was listening on the low end of 40 meters and just below the bottom of the band when he heard a WN7 in the state of Washington. The station was on 6.995 MHz.

Peter tried to find the fundamental frequency but couldn't dig it out of the QRM on 40 or 80. He checked the most recent Callbook for the offending station but came up blank. But he did get the call and name of the station being worked (in Utah).

Realizing the urgency, Peter phoned the Utah station who in turn got the phone number of the Washington station on 7.119 MHz. Peter then phoned the WN7. It seems it was the first time the rig had been on the air. As a matter of fact, a General class operator was testing out the rig for the new Novice. The rig was removed from service, with a sigh of thanks from the fellows in Washington State.

To Peter, kudos for your sincere concern for a fellow amateur. It's an honor to be part of your world!

An important moral to this story. If you use someone else's station, use the call sign of the station you are visiting (as required by the FCC). And as for testing out a friend's rig (who is waiting for his license to come in the mail) be careful! When you use the call sign/portable, you are responsible for the quality of the signal. If it has a spur, you get the pink ticket, not your friend. Also when you test a new rig, (yours or someone else's) make the appropriate entry in your log. You will look pretty bad if you get a pink ticket and don't have the transmission entered.

("Carrier" Mt. Diablo ARC)

MOBILE OPERATORS

CHECK YOUR AMATEUR LICENSE

As you drive about enjoying the pleasures of working through the many fine repeaters around the country, are you operating legally?

Chances are the answer is NO.

The reason is very simple. You are not in possession of your amateur license. The original is probably in your shack, maybe even framed. Copies of your license are useful for many purposes, including attaching to an application for renewal, but not for operating.

At the FCC Forum recently held at the Roanoke Division ARRL Convention, the question of license copies was asked. The response was that at any time you operate any amateur station; your home station, your mobile station, a club station or another amateurs equipment, you must have the original license on your person or on the premises.

Quite simply, it must be available for inspection by Commission personnel on demand. Copies are easy to obtain. The original would be difficult for someone to get hold of, short of outright theft.

(From "RaRa Rag", Rochester, NY)

Looking for a present for a ham? Is he one who wants to keep up on the news of Amateur Radio? If so, we suggest a gift subscription to "Worldradio". We send a gift card in your name. See page nine. Act today.

"WHAT IS A HAM?"

I've got no business sitting here, Too darned bad I don't like beer. I've lots of thoughts I'd like to speak But words come hard with 'tongue in cheek.' Lots of people have asked of me -- "What is a Ham?" Well... let's see. First, we'll take a good long look, Thru the eyes of an XYL and cook.

A Ham's a guy who rushes home - Can't wait to get the rig turned on. He turns the dials and flips the switches, And checks the gear for any hitches. Next thing he does is call CQ In hopes of finding a friend or two. If he gets no answer and all else fails, He'll content himself to read the mail.

Hams are strange and wondrous ones, Who often speak in 'Unknown Tongues.' They'll say QRM or QRT Or QRZed the frequency. They'll speak of signals 40 over 9 And QTR - That's ... 'What's the time?'

A Ham really doesn't have time to eat, He always gets those itchy feet. To DX chase or just rag chew, In hopes of working someone 'New' The neighbors of a Ham... get sore, And come a-knocking on his door. The electric toothbrush they just bought, Just won't work and it's all his fault!

The home of a Ham is easily found, Wires and antennas from sky to ground. Some of the towers are pretty big... Just planted ours with creeping fig. I hope I have answered the question for you of "What is a Ham?"... It's quite all true... Guess I'll QRT and shout... 'Signing off and listening out.'

Dale Shelley, K6SF and XYL June

HELP POLICE HELP YOU

by Paul Schuett, WA6CPP

Identify your equipment.

All of us want to keep our equipment from being listed in "Strays" in QST or in "Hot Equipment" in 73. We could install intricate intrusion alarms or hire private watchmen, but this is not always practical.

This local police department, as some others, has available for citizen's use an engraving machine to inscribe identifying marks on items of value, such as cameras, stereos, tape recorders, TV sets, automobile batteries, and amateur radio equipment.

The idea is, inscribe your drivers license number on each item. When police raid a suspected burglar's pad, the items seized can be identified as to the legal owner. The driver's license number is instantly identifiable by the police and the holder of a particular number can quickly be contacted to identify the loot.

This identifying number is now permanently engraved on all equipment and other articles of any value around my QTH. The police also hand out window stickers to advise any prospective felons who may be casing the premises that quickly fencible items can be traced.

If the police in your community do not have this service, suggest it. Quite often one reads in the paper that people have had items returned because they took the trouble to identify their personal property.

The Senate has adopted and forwarded to the House the Goldwater Bill, Senate Joint Resolution 197, which would authorize National Amateur Radio Week June 17 to 23, 1974. The bill has been assigned to the Committee on the Judiciary of which the chairman is Peter Rodino, Jr. and ranking minority member is Edward Hutchinson, Suite 2137, House of Representatives, Washington DC 20515.

INTRUDER UPDATE

by "Bill" Conklin, K6KA

Last year, C. J. Thomas, G3PSM, who is the "Intruder Watch Organizer" for the Radio Society of Great Britain, established IARUMS. This stands for International Amateur Radio Union Monitoring System", and is effective for Region I.

Colin has expanded his monthly summaries of reports of intruders by including those from Australia, and North and South America. The IARU membership in Region 3 is considering a parallel organization; W. H. Chandler, VK3LC, currently is travelling to Japan, Hong Kong and Singapore in order to test the interest. ARRL has been contributing Region 2 intruder summaries to be included in those of Region I.

Such disclosure of world-wide intruder reports often is useful. During our winter, relatively few intruders on 14/21/28 MHz have been heard in North America. This is due primarily to the use of lower frequencies across Siberia, at times when these bands might be open on the daylight path across the Pacific. Mainly 21 MHz harmonics of lower frequencies have been coming through. However, in the Southern Hemisphere, the intruders have been numerous; in an hour, VK3LC logged about 25 of them, mostly from Asia.

In March, there were Region 2 reports of an Interpress station on 21.345 MHz, located in Buenos Aires. When the February IARUMS summary arrived, the actual call identification was included.

In another case, many Australians heard VOA Philippines on 14.115 MHz; in Region 2 where the VOA frequency schedules were available, it was found that this one-time emission appeared to result from transmitter-cross-modulation of the second harmonic of 11.830 MHz, minus 9.545 MHz, producing 14.115 MHz. With synchronous modulation, a good signal would result; if the modulations were separate, both might appear on the spurious frequency. The treatment needed at the transmitter became obvious.

In addition to assistance between countries in reducing harmonic and spurious radiation, there have been many more cases of various kinds, which have been worked on by the Intruder Watches, and by the proper officials in several countries. This need is sometimes by the intruder watchers who often obtain assistance of station engineers or others in providing observations that lead to the correction of the basic problems. At any rate, the detective work that is involved in some studies of intruders, presents a challenge that provides one of the most rewarding fields in the enjoyment of Amateur Radio.

Now that summer east-west conditions in the northern hemisphere are about to arrive, intruders in the 14 MHz band may be expected to be more numerous in the USA. Reporting and study of these problems will require continuing work on the part of a dedicated group of amateurs.

Those interested in contributing their observations, may write to Dick Baldwin, Intruder Watch, ARRL, Newington, CT, 06111.

From FCC Rules and Regulations 97.87. (Paraphrased).

1. YOUR CALL - At beginning and end of each single transmission OR exchange of transmissions but not less than once each ten minutes.

2. OTHER STATION'S CALL - At the end of an exchange of transmissions. In Lieu of the other station's call, you may transmit the "generally accepted network identifier" OR "the call sign"...for at least one of the group of stations with which communication was established."

The Worldradio News, June 1974

WHAT TO DO ABOUT ELECTRICAL SHOCK

by R. Willis

Every ham, his wife and children should know what to do in the event anyone suffers from electrical shock.

I have taken the following information from the Los Angeles city textbook, "Modern Health".

Electrical shock causes stoppage of breathing. The electrical shock occurs when electricity passes through the body. It may paralyze the breathing center. Do not touch the victim if he is in contact with high voltage.

Turn off the current if you can find the switch. If not, then grasp the electric cord where it is not bare or wet and pull it from the socket. If you cannot do either, try to remove the victim from contact with the wire by taking a dry cloth, encircling the wire with it and pulling the wire from the victim, or use a wooden pole. Never cut the wire!

A less safe method is to use cloth to pull the victim from the wire, being careful not to touch him directly until contact with the wire is broken. The wire may cling to him, and you may have to pull him some distance to break the contact.

He may not be breathing - this is asphyxiation. Call for professional help as soon as possible.

His breathing must be begun as soon as he is cleared from the wire; if his breathing is slow and shallow and finally reduced to twitches, muscles jerk and pupils of the eye dilate, skin turns blue, this is lack of oxygen in the blood. The heart continues beating even after respiration has ceased. The length of time the victim can live depends on the amount of oxygen he had in his blood and the amount of exertion during the asphyxiation.

In past years several methods of artificial respiration have been described. All of these are of value and have been used to save lives.

The most recent method, has many advantages and has to a great extent replaced all of the older methods. It has the advantage of being direct and easy to administer. Mouth to Mouth artificial respiration provides the pressure to inflate the victim's lungs immediately. This is of great importance, since time is a vital factor. In addition the operator has more control over the pressure and timing of his efforts. He can control the volume of air needed to inflate the victim's lungs and observe the movement of exhaled air.

If you do not have an instruction book on this method of artificial respiration, you should contact your local Red Cross, Park Director, Doctor, or Library and have every member of your family familiarize himself with it.

de W6SD Carrier

JERRY LEWIS

By Frank Shannon, K4GT

The Tampa Bay Repeater Association has, again, added to their many laurels by having their mobile members perform as collectors for donations to recent Jerry Lewis Marathon drive for aid of victims of muscular-dystrophy affliction. Two-meter FM was used to coordinate assignments for pick-ups from donors' homes. Jim Lafollette, WB4WBL, had his associates in CAP (Civil Air Patrol) join TBRA members in this charitable public service endeavor. "Kudos" to all!

(from Florida Skip.)

HAM TRAVEL

by Ed Martinson, WØGYH

I had been in Finland for three years as a child, but on this trip many pre-conceived ideas of that Northern European country were shattered.

First, Helsinki is on the same latitude as Anchorage, Alaska. I went prepared for cold weather. Temperatures soared to 93 and 94 degrees. One thinks that when America is so advanced, the others would be even backward. Not so in Finland. The war reparations, to Russia, were paid off in seven years. To do this the plucky Finns dug in, went to work and developed new plants and industry.

Language was a small barrier. But, with persistence, one could make oneself understood. Twenty percent of Finland's population is Swedish. I was able to do much better in the settlements north and north-east of Wasa which are predominantly Swedish. Only three of my many relatives spoke English. Now that I've been gone for six weeks and spoke Swedish most of the time, you may notice a little accent in my speech.

Honeywell International Division helped arrange a host and guide for my stay in Helsinki. He was Pekka Hilden, OH2CW, a Sales Engineer in Industrial Division Instrumentation. What a terrific guide the General Manager made. With Pekka and his friend, Juhani Loikala, OH2CW, we got to see most of the many places of interest in Helsinki. My Pentax camera did get a good workout. It took over 400 pictures. We went by ferry boat to Atland Island for one week. Taking two hours to eat the smorgasbord, we hardly noticed the six hour boat ride.

Once at Aland Island's Mariehamn, Sigge Mansnerus, OHØNI, took over the host and guide duty. First to the Radio Club to meet all the OHØs. I met and shook hands with the rare - OHØMA - of Market Reef. Tuesday we climbed Radio Hill, three kilometers north of town and WØGYH/OH was on the air at 0908 GMT. First contact, my old friend Lawrence Mueller, W8RLT of Liunia, Michigan now DJØND, just outside of Hannover, Germany.

Europeans came into Aland like the W4's into Minnesota. Only band that was good was twenty meters. Propagation to state-side was poor. Heard VK9FH twice around 1230 GMT, but Fred Hargesheimer was up late, and didn't listen, just pulled the big switch. Worked lots of South East Europe and on down into the Indian Ocean.

Food - I'm not eating for a spell now. Gained ten pounds trying to please the hosts and hostesses. Their seafoods are terrific, only the shrimp are very small. A typical day could be: Coffee 6 a. m.; Breakfast at 8 a. m.; Coffee at 10 a. m.; Noon dinner at 12. Coffee at 2 and 4 p. m. Open Face Smorgas (sandwich) at 6 p. m.; coffee at 8 and 10 again. In between it could be soft drinks or beer. Dined out in some of their fine restaurants and those waitresses really wait on you. They serve with a fork and spoon, handling them like salad tongs.

After the six-week stay, we wrapped it up with a sauna party with the OH-DX-Ring, OH2AM; their villa out about 25 miles northwest of Helsinki. Martin Laine, OH2-BH, and Ville Hilesmaa, OH2MM; DX notables of 3C1EG and 3CØAN were among that group. Marty showed slides from that trip, and I had a few for them. Got back into the sack at 1:30 a. m.

It would have been a perfect nights sleep except at 4:30 a. m. the desk called and told us to get moving or we would miss our charter flight back to the USA.

("The Flyer" Rochester, MN)

product review

by Al Maston, W6JYQ

The Atlas 180

Speaking of sensations, amateur radio has been blessed with a great transceiver for mobile and fixed operation.

This unit is completely, and I mean completely, solid state at 180 watts PEP. All modular design - IF module, AF module, RF module and PA module. This little unit will fit in your glove compartment if you will, only 9 1/2" wide, 3 1/2" high, 9 1/4" deep. This remarkable piece of gear, in all my years with electronics and ham radio since 1934, beginning at the youthful age of 14 - without a doubt is a masterpiece in itself. As the old saying goes, "We've come a long way, baby!"

The standard set forth in the Atlas 180 is without a doubt a new record in engineering and craftsmanship. I have never in my entire electronic experience, (30 years - Signal Corps Officer, government electronics, broadcasting, consumer electronics) heard or operated such a sensitive and efficient piece of electronic equipment.

This transceiver covers 20, 40, 80 and 160 meters, SSB (selectable USB or LSB) and CW with broad-band design eliminating transmitter tuning. Its manufactured in Carlsbad, Calif. with U. S. made parts.

The front end circuit design of the receiver provides exceptional immunity to overload and cross-modulation as far as I'm concerned, exceeding the best tube design. It has a self-contained speaker. S-meter to 50 db over S9 (S-meter is also calibrated for modulation level which is set by the mike gain) and a 100 kHz calibrator. A most important point of interest in the calibrator is when the calibrator is in ON position, a desensitizing circuit reduces receiver sensitivity thereby making it simple to locate the calibrator signal.

The receiver requires less than 0.3 microvolts for 10 DB signal - plus - noise to noise ratio (typically 0.2 uv). It has an image rejection better than 60 DB. The selectivity of the crystal lattice filter at 5520 kHz (6DB bandwidth: 2.7 kHz -- 60 DB bandwidth: 4.6 kc. (This receiver is hot-believe you me!)

The front panel of the Atlas 180 has the following controls and accessories: S-meter (for DB units & mod level) - the tuning dial, the knob, provided with a tension adjustment for increasing or decreasing the torque required to turn the main tuning knob (ideal when working mobile over rough country like I do) - a dial set for the 100 kHz calibrator, AF gain control, RF gain control, band selector switch with 5 band positions, 1.8 MHz; 3.5 MHz; 3.7 MHz; 7 MHz; and 14 MHz. The crystal oscillator extends frequency range for MARS operation. (Which I use when checking in as a MARS member.)

Continuing, we have the function switch; calibrator switch, and, oh yes! a light-switch for both S-meter and tuning dial which has a bright or dim position. Some front panel, eh what, all in 3-1/2" high x 9-1/2" wide.

Of course all the additional accessories and connectors in the rear, on each side of the PA heat sink, which are standard; such as ext. osc. socket, external speaker or headphone jack, mike jack, key jack, all 1/4" standard, SO-239 antenna connector. Banana plugs are used for 12-14 Volts DC connection. AC operation is available with the AR-117 console which is a deluxe plug-in affair. All you do is unplug from your vehicle and just slip it in the console and all connections are made. (Please turn to page 47)



Reach Out!

ARRL FOUNDATION TO FUND YOUTH, OTHER PROGRAMS

"This is an exciting frontier for young people. Amateur Radio, especially in its communications satellite program, offers a unique opportunity for very real, direct involvement in today's world." The speaker: Harry V. Williams, Chairman of the Board, Hartford Fire Insurance Company, and long time amateur radio operator, W1MBK.

Mr. Williams is a member of the Board of Directors of the newly-formed ARRL Foundation which held its organizational meeting recently in Atlanta, Georgia. Other directors of the Foundation include Edward J. Bock, retired president and chief executive officer of Monsanto Chemical Corporation, Lloyd D. Colvin, President of Drake Builders, Inc. and Peter J. Schenk, President of Telcom, Inc., all radio amateurs. Also Robert York Chapman, Richard A. Egbert, Jean A. Gmelin, Larry E. Price, and Larry J. Shima, radio amateurs and directors of the parent organization, the American Radio Relay League, national-and international-association of amateur radio operators.

The ARRL Foundation has been established by the League to provide a means for dedicated amateurs and others to contribute in a significant way to the support of programs for advancement of Amateur Radio in the public interest and service. Projects already under study for funding by the Foundation include the OSCAR amateur communications satellite program, especially its educational applications in classrooms around the world, scholarships, fellowships, and others.

At the organizational meeting, Mr. Chapman was elected Foundation president, Mr. Schenk, Vice-president; Mr. Price, Secretary; and Mr. Shima, Treasurer. Operating committees were also established.

In his closing remarks at the meeting, Mr. Chapman noted, "We have now taken the first big step in opening the door to a whole new opportunity for Amateur Radio to broaden its long tradition of service to man and society." The ARRL Foundation is chartered as a non-profit organization by the State of Connecticut and is headquartered at 225 Main Street, Newington, Connecticut 06111.

"Amateur Radio, a communication world in which scientists and tradesmen, doctors and explorers, ranchers and public servants, indeed people across the whole catalogue of human interest, we can reach out to serve the great dream of having people really understand each other"... A. Fairwell, VK2KP, Australian Minister of Defense

"I have found the most rewarding aspect of this (Amateur Radio) service to be the constant friendships that are established through a QSO. If we could get everyone in the world to be amateur operators, we could eliminate a lot of its problems"... Senator Barry Goldwater, K7UGA

"But to me, the greatest contribution 'ham' radio has made or will make is to true people-to-people communication, across political and geographical boundaries, thereby moving us all a little faster toward tomorrow's unified Planet Earth"... John F. Clark, W3GYH, Director NASA Goddard Space Flight Center

BRaille DIALS

by Bob Conaughty, K4OQ

Vernon J. Page, W8EXJ, 1969 Manz St., Muskegon, MI 49442 was temporarily blind.

He found out, the hard way, what sightless amateurs have to contend with.

Fortune smiled on Page. He recovered his sight.

Since that time he has set up, in his garage, a plant to manufacture Braille dials for the Drake line. He has used over 30,000 rivets, 43 to a dial. The Drake equipment is such that it is ideal for adding a Braille disc to the dial.

So far it has not been possible to manufacture a Braille dial for other equipment because of the dial configuration. Page does this work for a very minimum fee of \$2.00.

"I enjoy good sight, and also ham radio."

It seems to me that we all owe Page a "well done." I am sure that the \$2.00 per dial does not begin to cover the cost of the material, let alone the labor. I suggest that those who can afford more send it along so those less fortunate may continue to enjoy ham radio. Thanks, Vernon, and keep up the good work.

"Florida Skip"

KASHECHEWAN AMATEUR RADIO STATION FUND

The remote village of Kashechewan is located in Ontario's far north, near Fort Albany, on the shores of James Bay. The resident villagers depend solely on amateur radio communications to tie them in with the outside world.

Gord Wells, VE3HCX and XYL, Sandee, VE3HCY, are with the Federal Government and are stationed in Kashechewan. Gord has set up his station, VE3HCX, which has been used numerous times in rescue and medical emergency operations. Recently there was a medical evacuation that is credited with saving the life of a six year old girl suffering from severe head injuries. (See page 3, this issue of "Worldradio".)

The problem is that when Gord and Sandee leave Kashechewan, all communication with the outside world ceases. In the case of the six-year old girl this lack of communications could have cost her life. Gord and Sandee are training several people in the area to become radio amateurs so that the link may be continued. However, most of the people in the village are dependant on the land for their living and have NO income of any sort.

The proposal is, to establish a fund drive in which adequate money is raised to purchase amateur radio equipment and a gasoline generator for the village of Kashechewan and surrounding area.

This station is not only necessary, but is vital to the welfare of the people in the area of Kashechewan and Fort Albany, Ontario. We implore you to invest your equipment or money in this most worthwhile of the projects, in the name of Amateur radio.

Any members wishing further information or wishing to make a donation to the Kashechewan Amateur Radio Station Fund please contact: Murray Lampert, VE3FXA, 167 Kennard Avenue, Downsview, Ontario, MeH 4M8, or telephone at 416-633-7547.

All clubs and individuals are urged to assist in this worthwhile project by making a donation payable to the Kashechewan Amateur Radio Station Fund, Nortown Amateur Radio Club, Post Office Box 356, Adelaide Street Postal Station, Toronto, Ontario, Canada.

(From "Nortopics" Ontario, Canada)

THE HAM FRATERNITY

One of the most heart-warming stories in MIDCAR's history began one evening last Fall with a telephone call to my QTH.

This was during the period when John Johnston, WB4VIK, (a severely handicapped operator) was experiencing so much difficulty with his rig, which for a time defied all efforts to correct the problem. At one point a relay was thought to be the offender and an all-out effort on MIDCARS located an identical replacement. I installed it, to no avail. But that is another story.

My caller said that he was much impressed by John's dedication to MIDCARS and thought it was a shame that he didn't have a good, dependable rig. The caller said he had trouble sleeping nights because of John's plight and was determined to do something to remedy the situation. His only condition was that he remain anonymous. I have, of course, respected his wishes.

He asked my opinion as to the best and quickest way to get John going with good equipment. We discussed, at some length, such things as quick availability, acceptable quality, frequency stability and other things.

A few days later UPS delivered to my house a brand-new Drake TR-4 transceiver, a new Drake AC power supply and speaker, plus a new, high-quality dynamic mike. I delivered the rig to John and got him set up with the new equipment. John was, quite naturally, delighted and the great improvement in his signal has been noted by everyone.

I think this most generous gesture on the part of a fellow-amateur to help a handicapped member of the Service, is in the finest tradition of Amateur Radio and of MIDCARS. The unselfish act of a person spending many hundreds of dollars to benefit a person he has never met should give a lift of the spirits to all of us. On behalf of MIDCARS, a most sincere "Thank you!" to our anonymous friend.

by Bill Blankenship, K4DLA ("Radio Watch")

DuPage FM, Inc. has about 100 pieces of General Electric Pre-progress line model 4ER6 and similar vintage RCA radios which we will give away to charitable organizations such as missionaries, Red Cross, etc. for the nominal price of \$5.00 per radio.

The organization must arrange for shipping from Lombard, Illinois, 20 miles west of Chicago. To obtain the radios, a representative of the charity should contact me (William Lester) 312-627-3540 in the evenings.

As I have already reached my limit of charitable contributions, I cannot make an outright gift of these items, but must sell them for the nominal price of \$5.00 per radio.

These radios are old, but they can be put to good use for missionary net in South America or similar application.

Come join us. have some fun. learn something and meet new friends.

"Get involved in what Amateur Radio is all about. communications and public service"... Steve Stroup, WA6WEL

EQUIPMENT URGENTLY NEEDED

Cleo Mahoney, WAØSHE, Daniel Bissett, K8DCR and Gerald Beaulieu, WAØPFS are working with the Kansas City Association For The Blind Amateur Radio Club. They urgently need radio equipment suitable for Novices such as keys, headphones, receivers, tape recorders, code oscillators and various accessories needed to teach blind students to obtain Novice licenses. Send equipment direct to Cleo Mahoney, WAØSHE, 6001 Blue Ridge Cutoff, Raytown, Mo. 64133. Receipts for tax exemptions will be sent upon request.

(MARC "Newsletter")

NICELY DONE!

The following report by Bob Street, W6PDD, is from the FDT NEWSLETTER of the Pioneer Radio. Ma Bell's boys have done it again and it reflects well on those involved and amateurs in general.

We received a request from Carl Stubenrauch, Board Vice President of Guide Dogs for the Blind, to install an amateur radio station in San Rafael.

Sightless amateurs that go to the school have brought their ham stations along with them for their training. This has presented many problems in equipment location, antennas and all the other things that go along with ham radio.

We had a meeting of the technical committee and came up with the only way we could do this public service. A sideband transceiver sounded good, but tuning up without burning it up presented quite a challenge. Tune up with audio tones, pretuned operational frequencies and a half dozen other ideas were all discussed. We finally decided that the only feasible scheme was to use a 2 meter multi-channel rig. In this manner of operation you only had (1) Off On Volume, (2) Squelch and (3) Channel Selection. The push-to-talk microphone and uncomplicated operation with a locked cabinet made it a natural.

The only problem was frequency selection. We were pretty sure we could not get to our repeater from that location and we weren't sure which repeaters could be worked from there. Ralph Green, WB6UPD, went out to the school one evening and scanned the channels. He came up with the two best repeater signals, WR6ACS and WR6AEM. John Furch, WB6GHA, and Bob Marchand, K6HQL, surveyed the school for an equipment and antenna location. Jerry Bongard contacted the President of WR6ACS, Ralph Green contacted the President of WR6ABM and both organizations said that they would be happy to have the station at San Rafael use their repeaters.

The following Saturday Bob and John installed the station and checked it out. Formal presentation of station was on the following Tuesday. Carl Stubenrauch, Don Faber, Jerry Bongard, WA6TQW, John Proffit - the representative of the Marin Council and of course the work party - Bob Marchand, K6HQL and John Furch, WB6GHA, all showed up for the press and photographers. We received nice coverage in the Independent Journal and in the Alexander G. Bell Hot Rag News.

(From CCRC "Circle")

"While diplomats and politicians struggle with official relationships, the world's hams continue to establish good will on a person-to-person basis. ... Clay T. Whitehead, KØBGD, Director, White House Office of Telecommunications Policy

There are nearly one-half million amateur radio operators in the world. Such a past-time encourages international friendship by radio and provides valuable communications in times of disaster ... Dr. Richard Brown, WØOL

The test of our generation will not be in the accumulation of knowledge--In that we have surpassed all the ages of man combined. Our test will be how well we apply that knowledge for the betterment of all mankind. ... President Lyndon Johnson, Washington, DC... 1968

MIDCARS

I've asked myself so many times Just why I sit and stare I guess I want to help someone With messages by air I set and wait I plead and beg My zeal is hard to match I'm at my best my fellow hams When I can run a patch

Art Federle, W8PNW

**IRON
POWDER
R.F.
TOROID
CORES**

CORE SIZE	-41 Mix Green 'HR' 20 kc - 100 kc $\mu=75$	-3 Mix Gray 'HP' 50 kc - 1 mc $\mu=30$	-2 Mix Red 'E' 500 kc - 30 mc $\mu=10$	-6 Mix Yellow 'SF' 10 mc - 90 mc $\mu=8$	-10 Mix Black 'W' 30 mc - 150 mc $\mu=7$	-12 Mix Grn-Wh 'IRN-8' 60 mc - 200 mc $\mu=5$	Outer Diameter (inches)
T-200	\$2.50	\$2.75	\$3.00	\$3.50			2.000
T-130	1.50	1.75	2.00	2.50			1.300
T-106	.95	1.00	1.00	1.50			1.060
T-94	.70	.75	.75	.95			.942
T-80	.55	.60	.60	.80	.90		.795
T-68	.45	.50	.50	.65	.75		.690
T-50	.40	.45	.45	.50	.60	.65	.500
T-37	.30	.40	.40	.45	.45	.55	.370
T-25	.25	.30	.30	.35	.40	.45	.255
T-12	.25	.25	.25	.25	.25	.35	.125

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FERROMAGNETIC PRODUCTS



dx

by Gary Stilwell, W6NJU

(Editor's Note: "Worldradio" is most pleased that this column will now be conducted by the prominent DXer Gary Stilwell, W6NJU. He previously served (before moving to Sacramento) as vice-director of the Southwestern Division. He is on the Honor Roll and also publishes the QSL Managers Directory. Gary is a very thoughtful, analytical and well-rounded amateur. We now have the potential to present an outstanding DX column of real service to DXers. Your input is invited.)

A DX column? What should a DX column contain? Can a DX column in a monthly publication serve a purpose?

We certainly hope so, as it's our hope this will be your column and will take shape to your desires. Comments and/or suggestions will be appreciated. It's also hoped that you will send in stories and information. We are open to giving space for DX clubs regarding events or club news: to anyone that comes close to DX.

FRESNO DX CONVENTION

256 DXers registered for the joint Southern California/Northern California DX get-together in Fresno on April 27-28. The main speaker was John Martin, VK3JW who spoke on the Mellish Reef operation, VK9JW. Overseas DXers included F3KW, G2PU, KS6-DY, KV4HW, YB5AAQ and ZL1WE. Also in attendance was Noel Eaton, VE3CJ, the newly elected President of IARU. It was also good to see Al Friedman, W9YRA from Rockford, IL.

Next month's "Worldradio" will have the full story - and pictures - of the convention.

DX ADVISORY COMMITTEE

Bob Vallio, W6RGG, member of the DX Advisory gave a run down at Fresno of matters presently being considered by the Committee. Matters currently under study are:

1. DXCC Country criteria
2. Phone DXCC
3. Changes in Rule #9 of DXCC criteria
4. Deletion of Zanzibar from the countries list

The Phone DXCC matter took most of the

open forum time with votes taken on keeping both certificates as is, deleting the phone certificate or adding a new CW certificate. Comments to the DX Advisory Committee can be made c/o ARRL, 225 Main Street, Newington, CT 06111.

NORTHERN CALIFORNIA DX FOUNDATION

The Northern California DX Foundation has been organized and is interested in helping to upgrade the image of amateur radio at home and abroad. The Foundation is dedicated to the encouragement of, and assistance to, those radio amateurs whose pioneering efforts involving new, unique or uncommon radio communications methods and procedures are in the public interest and/or of significant benefit to Amateur Radio. Further information can be obtained from the Foundation, P. O. Box 717, Oakland, CA 94604.

ITU WEEK - ARMED FORCES DAY

The week of May 11, 1974 through May 19, 1974 brought a flood of prefixes in the US like never seen before. Special calls were used to celebrate ITU week and also there will be special calls for Armed Forces Day. A WPXer had a field day.

As an aid to getting a QSL here is QSL information available at press time:

- | | |
|------------------|------------------|
| KD1ITU to K1ZND | KW3ITU to WA3EUE |
| KE1IYU to W1DAL | KD4ITU to W2GHK |
| KO1IYU to WA1PID | KE4IYU to K4ZA |
| KD2ITU to WA2UWA | KR4ITU to K4ZCP |
| KH2ITU to WB2PYM | KR5ITU to K5PFL |
| KK2ITU to K2PWK | KT5ITU to WA5LES |

- | | |
|------------------|------------------|
| KP2ITU to WA2UWA | KF6ITU to W6ANN |
| KM2USA to WA2UWA | KO6ITU to K6SDR |
| KR2ITU to WB2FLF | KT6ITU to W6NJU |
| KS2ITU to WA2UWA | KD7ITU to W7ZC |
| KU2UCG to WA2UWA | KD8ITU to K8MFO |
| KW2ITU to WA2UWA | WS1ITU to WA1PGY |
| KY2ITU to WA2UWA | WD6ITU to WA6FIT |
| KD3ITU to WA3PZO | WF6ITU to W6CUF |
| KE3ITU to K3CR | WW6ITU to W6KG |

MOUNT ATHOS

Possibly an announcement soon for a late May operation. In the meantime, QSL's for the following (CW) QSOs from SV1DB/A on April 21-25, 1973 may be obtained from the operators listed below:

- Apr. 21 DJ6SI-1850-2030, HB9KB-2104-2130
 Apr. 22 DJ6SI-0530-0830, 1620-1720
 DK5OS-0112-0330, 1425-1510, 2255-2400, HB9KB-1105-1305, 1740-1850
 Apr. 23 DJ6SI-0000-0210, 1010-1110, 2305-2400, DK5OS-1230-1310, 1910-2100, HB9KB-0215-0400
 April 24 DJ6SI-0000-0025, 1005-1200, DK5OS-0025-0510, 1205-1225, 2310-2400
 April 25 DJ6SI-0100--420, DK5OS-0000-0100, 1855-1015

SISTER CITIES PROGRAM

Chuck Towns, K6LFH, recently gave a presentation before the Northern California DX Club regarding the Sister Cities Program. An article elsewhere in this issue will be devoted to the program. It is worth your reading as to some ideas for DXer participation toward the coming World Radio Conference.

HERE AND THERE

Mike, A9XO (Bahrain, ex MP4BJR) QRV on 14200. QSL K9KXA. FC0BAU on Corsica will be active through May, all bands. QSL HC8GI to KZ5PW only up to Jan. 31, 1974, otherwise QSL direct to E. Divine, Jr. Isla Santa Cruz, Galapagos Is. QSL OG7AA to OH7AA. W6ISQ has logs for XU1AA operation Nov. 24-25, 1973. QSL's for VP1MT go to W3FVC.

Remember we would like information regarding your DX Club, DX stories you might want to contribute or any comments regarding DX or related matters.

Our thanks for information to the DX News Sheet and West Coast DX Bulletin.

HF PROPAGATION PREDICTION 1974 FROM BURBANK

JUNE

GMT	AFRI	EURO	SOAM	ASIA	SPAC
01	11.2	13.8	16.1	16.9	20.7
02	9.1	13.4	15.9	17.5	21.0
03	9.6	13.4	14.1	17.3	19.8
04	13.6	13.8	12.2	17.2	19.9
05	15.2	14.2	11.2	17.8	19.2
06	13.1	13.8	10.3	16.6	17.3
07	11.3	12.6	8.9	15.6	14.8
08	10.0	11.7	7.8	15.2	13.6
09	9.3	10.9	9.0	14.4	12.2
10	9.3	10.5	12.0	13.1	12.1
11	10.1	10.8	11.5	11.7	12.5
12	11.5	11.9	11.9	11.2	12.6
13	13.1	13.4	15.6	11.7	12.4
14	14.6	15.0	18.0	13.0	12.7
15	15.6	15.9	18.7	14.6	13.3
16	16.1	15.8	18.2	13.9	13.2
17	16.3	15.7	18.3	13.4	12.2
18	16.6	15.8	19.7	13.5	11.3
19	16.8	16.1	21.5	14.9	12.0
20	16.7	16.4	22.7	16.3	14.1
21	15.4	16.4	22.6	17.5	16.8
22	14.1	15.9	20.8	17.7	19.0
23	13.1	15.0	16.5	17.4	20.2
24	12.4	14.3	15.7	17.0	20.6

JULY

01	10.1	12.8	15.0	16.3	20.3
02	8.1	12.4	15.1	16.9	18.6
03	8.8	12.5	12.3	17.8	18.6
04	12.8	12.9	12.3	17.4	18.6
05	14.6	13.5	11.2	17.7	18.0
06	12.6	13.2	10.4	16.3	16.6
07	10.9	12.1	9.1	15.3	14.7
08	9.5	11.1	7.9	14.8	13.9
09	8.7	10.4	8.5	13.9	12.5
10	8.7	10.0	10.7	12.5	11.8
11	9.6	10.3	10.7	11.3	11.7
12	11.0	11.4	11.3	10.7	11.8

Predictions were kindly provided by Bob Goldman, K6BD. The MUF's are median value (approx. half the days of the month will be higher and half will be lower). Suggest using 85% of MUF as guide, but check on next higher band for opening.

(From JPL ARC "Newsletter")

NEW YL DXCC NEW

Sponsored by the Canadian Ladies Amateur Radio Association.

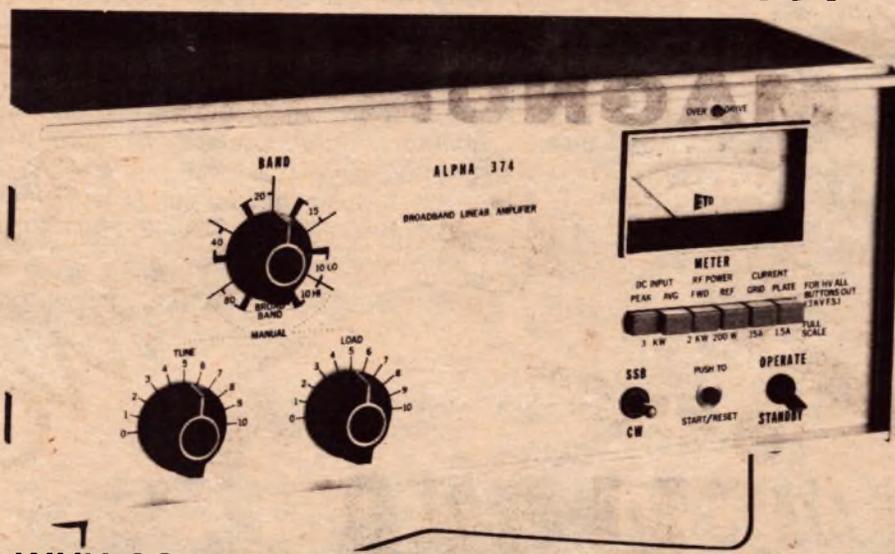
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- The human voice is a "raspy" signal with high peaks and long, low valleys. If used to modulate an SSB transmitter directly, the low power of the valleys limits the average power output to 12-15% of the transmitter's PEP rating. Operating above this level, the peaks overdrive the transmitter, cause band splatter and poor quality.
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REPEATER ETIQUETTE

by Dave Flinn, W2CFP

Note: The following information is a compilation of ideas published in various club bulletins. These are by no means hard and fast rules adopted by our club (although perhaps some of them should be), but most of them are plain common sense. It is suggested that you try to follow these points as much as possible; and your club may want to consider adopting them as regular rules of operation.

A repeater is intended to serve stations that can not communicate on simplex channels and to provide a calling frequency for all stations. If the traffic load on the repeater becomes so heavy that many of those monitoring have to turn it off, the system's main purpose is defeated. It then becomes little more than an expensive, complicated toy. Courtesy and a genuine effort on every operator's behalf will improve operation for all.

REPEATER DO'S

1. Use the repeater as much as you wish. Your dues are in support of our activities and it is there to be used.
2. Listen before transmitting. See if the repeater is in use. If it's busy, determine who is in conversation before transmitting. Always consider whether interruption is appropriate.
3. Identify whenever you key the repeater, even if you just want to hear the squelch tail. Identify to stay legal, and to let others know who tripped it.
4. Let the repeater's output carrier drop before you transmit. This gives breakers a chance to get in.
5. Keep transmissions short and identification to a minimum. Remember, he who times it out buys doughnuts.
6. Immediately acknowledge breakers.
7. When you are a breaker, give your call.
8. Establish contact on the repeater and then switch to simplex, if conditions permit, for any lengthy contact.
9. Always identify your station. Tests on the repeater are permissible, but the station that is testing must identify itself.
10. Think before you transmit. A little thought ahead of time will make you sound more professional.
11. Keep it clean. Hidden meanings or double meaning remarks may fall on non-amateur ears and may not be considered funny.
12. Request assistance when testing. Seek out quality reports, if you are working on your equipment.
13. If asked to assist someone else in testing, give accurate reports. When they are barely readable, they are more than "a little bit noisy" or more than "a little distorted". Call a spade a spade.

14. Make visitors and newcomers feel at home. Go out of your way to help the visitor find his way and extend our friendliness. The newcomer, with your help, will soon be an oldtimer.
15. During an emergency, stand by, unless you are specifically called or have priority traffic or information.

REPEATER DON'Ts

1. Don't monopolize the repeater. Monitoring stations will soon become tired of listening to you.
2. Don't use the repeater for any business purpose, whatsoever.
3. Don't key-up the repeater unless you intend to identify your station. Besides being unlawful, unidentified key-ups irritate the control operator and all stations monitoring the frequency.
4. Don't break unless you have a good reason. (1) Emergency traffic, (2) club priority traffic, (3) personal traffic with a shortage of time, (4) to offer information, (5) to join the QSO; should be the order of priority.
5. Don't make frequent unnecessary calls. Two calls are sufficient in a five minute period to contact a specific station.
6. Don't continue in QSO when you're poor copy. Get the important traffic through. Then knock it off. If we want to struggle for each word, we can switch to the DC bands.
7. Don't leave your transmitter unattended and accessible to unlicensed persons who can merely turn on a switch or depress a mike button to activate your station. Mobile rigs must also be protected by locking your car.
8. Don't use the repeater to work base station to base station if the stations can communicate on a simplex channel.

Remember, the repeater is being monitored at all times by a control operator. He is donating his time to make the repeater available for your use. Your consideration for the control operator can best be observed by following the procedures above. This will help the control operator meet his obligation to the trustee and the FCC. Also it will improve operation and communications for every station using or monitoring the repeater.

References (some items taken verbatim)

"Miami Valley FM Association Newsletter" and "The RaRa Rag", Rochester, NY.

TEXAS

by Dave Cheek, WA5MWD

The local coverage provided by VHF, and repeaters supplies a perfect device for amateurs to provide improved public service. One requirement for an effective public service system, amateur or otherwise, is an effective mobile/portable communications system. The great popularity of small VHF transceivers has provided amateurs with the operators and equipment to provide routine "crisis" communications within their communities. What good would it do an amateur mobile operator in Dallas, who spots a traffic accident, to be able to report it on HF to a fellow amateur in St. Louis?

VHF keeps the mobile in touch with people who are nearby, and can provide speedy assistance. But there must be more than just operators and radios. They must have some means of interfacing with other services, (fire dept., police, etc.)

A repeater group can provide the necessary links to these services. There are two repeaters in Texas which, I feel, are doing an outstanding job of allowing a large number of amateurs access to a public service system.

The 28/88 repeater in Dallas, probably has the shortest possible access time with their "fuzz buzz". This allows almost any operator to communicate directly with the Dallas police dispatcher. All that is required is a Touchtone pad, or an 1800 Hz tone generator, or the help of another ham so equipped. This machine probably does more routine public service than any other machine in the state.

Running a very close second is the San Antonio 22/82 autopatch. The machine works well, uses touchtone dialing, and even has a recorded message that operators can dial up in case they do not know how to use the patch, or do not know the police phone number. The amateurs that frequent this machine are very co-operative, so any transient operators can easily use the repeater/auto-patch. These two repeaters have done a good job of establishing a system all amateurs can use when needed.

There are two other machines that provide great public service on a scale more suited to larger emergencies. The WA5-YTM 34/94 repeater in Ft. Worth has an excellent "sky-warn" program established. The WR5AAA 28/88 machine in Houston is always ready to provide an efficient communications group whenever a major disaster strikes, as was shown a few months ago during a refinery fire in the Houston area.

They also have a Civil Defense net in Wednesday nights, which is very useful to all amateurs in the Houston area. It provides an opportunity for the large number of new Technicians we have, to get experience operating in a directed net, and to become familiar with traffic handling procedures before the need arises during a crisis situation.

I hope other amateur repeater groups, or potential groups, will take time to find out more about the public service these groups can perform, and that they will try to incorporate some of them into their system.

Several other repeaters have the "Fuzz - Buzz" provision. The 01/61 WR5ABA machine in North Dallas run by the North Dallas Repeater Association provides it, but the access code is different. The Irving 13/73 repeater also has this service, but I don't know if it connects to the Dallas P. D. or not. Both the WR5ABA and ABY repeaters are a part of the Dallas Police Department's Community Radio Watch. This program enlists the aid of fleets of radio equipped vehicles of all types, CB, business and Amateur, and is responsible for the initiation of this service in Dallas.

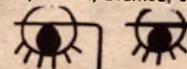
(From "No Name News" Texas A & M)

The Cleveland area .25/.85 repeater, long-awaited, is at last operational and reportedly gives excellent coverage along the shoreline of Lake Erie from Lorain on the west to Ashtabula on the east. This is a split-site machine with the receiver on the Antenna Specialists building, Euclid and E. 123d the transmitter is in the Mentor region.

Frequency	Location
52.72/52.64	Philadelphia
146.01/.61	Lancaster
146.04/.64	Meadville
146.10/.70	Bethlehem
146.16/.76	Harrisburg
146.16/.76	Philadelphia
146.19/.79	Richboro
146.19/.79	NE Philadelphia
146.22/.82	Camden, NJ
146.25/.85	Freedom
146.28/.88	Sellersville
146.28/.88	Mt. Holly Springs
146.28/.88	Pittsburgh
146.31/.91	Philadelphia
146.34/.94	Valley Forge
146.34/.94	Allentown
146.34/.94	Laurel Mtn. (Somerset-Wayne)
146.34/.94	Johnstown
146.34/.94	State College (possibly N. Phila. .16/.76)
146.37/.97	Red Lion
146.37/.97	Philadelphia
146.63/.03	

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- Same small size as encoder 1.5 x 4 x .75"
- All parts included except reed and reed socket
- Output relay included, low profile sealed type.
- Driven directly off discriminator of any FM receiver

\$9.95 - Kit

\$14.95 - Wired-Tested

MINIATURE ENCODER

- Miniature in size 2.5x .75x1.5" high
- Any miniature dual coil contactless reed may be used (Motorola TLN6824A, TLN6709B - Bramco RF-20)
- Complete with reed \$28.45. (Specify frequency)
- Output 3v RMS sinewave, low distortion

\$14.95 - Wired-Tested

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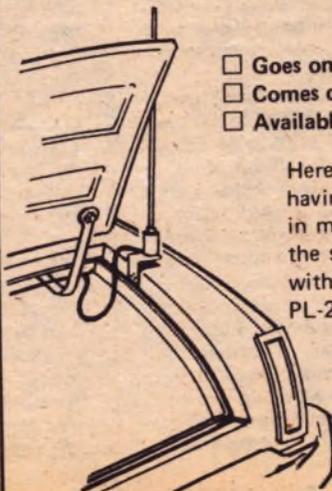
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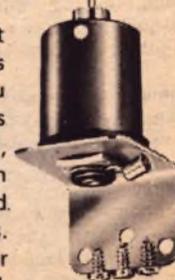
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by Rich Osman, WBØHUQ

Pretty soon, if all proceeds on schedule, there will be a new game in town, Oscar 7. Things seem to be moving fairly smoothly toward completion, as evidenced in the following report:

AMSAT - OSCAR - B STATUS REPORT

(Continued from last month's issue of Worldradio News)

If battery power does not recover, but deteriorates even further so the battery charge drops 70% below the full-charge value, the spacecraft will automatically switch to Mode D and reset the 24-hour timer. Both repeaters will then be switched off. But, the 435.1 or 2304.1 MHz beacons can be switched on by ground command to allow telemetry to be received.

Modes C and D are expected to serve as backup operating modes for use if the spacecraft available power reserves are low. Normally, operation in these modes will not be required.

These modes can be changed by ground command to turn any repeater or beacon on or off. This is done so any failure of automatic control circuits can be overcome by ground command.

Initial Launch Operation

The spacecraft contains an initial condition reset circuit so the antennas will deploy after separation from the launch vehicle, and the spacecraft will power up in Mode D with the 435.1 MHz beacon on. No repeaters will be operational for at least the first day. Everyone should forget about working through OSCAR and settle down and copy telemetry. It is expected the repeaters will not be turned on until the spacecraft has stabilized electrically and thermally, as indicated from telemetry data.

Orbit and Tracking Data

The expected orbit for OSCAR 7 is similar to OSCAR 6. It is expected to be sun-synchronous with almost an identical period and inclination. The same tracking procedures used for OSCAR 6 will be suitable with OSCAR 7.

OSCAR 7 is expected to be half an orbit ahead or behind OSCAR 6. Currently, OSCAR 6 comes over daily about 5 minutes earlier every 48 hours. If all goes well, OSCAR 7 will be launched so it will come over about 2-1/2 minutes earlier than OSCAR 6 did the day before. Similarly, OSCAR 6 will come over about 2-1/2 minutes earlier than OSCAR 7 did the day before. It's possible that instead of three useable spacecraft passes, about two hours apart each evening, there will be five or six passes (assuming OSCAR 6 is in operation) about sixty minutes apart.

Reference date for OSCAR 7 will be published as OSCAR 6 data has been up to now. Each individual may plot his own orbital information.

Ground Equipment Requirements

Considering ground equipment needed, each repeater or beacon will be discussed separately regarding ground equipment needed to operate with OSCAR 7.

1. AMSAT Two-to-Ten Meter Repeater

The two-to-ten meter repeater operates in a linear mode similar to the unit flown on OSCAR 6. SSB and CW are the operating modes. The repeater receives signals between 145.85 - 145.95 MHz re-radiates them between 29.4 and 29.5 MHz. A telemetry beacon is on 29.5 MHz.

Note these frequencies are different from those employed with OSCAR 6. They reflect comments received on operational experience obtained with OSCAR 6. The repeater has an output of 2 watts PEP. Received ground signals should be stronger - but don't throw away those preamplifiers yet!

The equipment used to work through OSCAR 6 will be suitable for working through this repeater. Use a sensitive receiver, a preamplifier if possible, and a suitable ten-meter antenna. The spacecraft will again be using a linearly polarized ten-meter antenna. The ground station antenna should preferably be circularly polarized. Linearly polarized ten-meter receiving antenna can be used, but at the sacrifice of some fading.

Transmitting equipment should put out no more than 80-100 watts of ERP from the antenna.

It is preferable to use a transmitter with output power around 80-100 watts and a simple ground plane, or turnstile antenna, than to use a lower powered transmitter and more directional antenna.

Communicating through OSCAR in low orbit is challenge enough for a one-operator station. Besides tuning the transmitter and receiver, it's necessary to keep both antennas tracking the spacecraft - and then work someone in between. There must be advantages in minimizing the duties to be performed during each pass. One should concentrate on the important business of making contacts through the satellite. That can partly be achieved using low-gain antennas and 80-100 watts.

2. AMSAT Deutschland 432-to-145.9 MHz Repeater

The AMSAT Deutschland repeater is also a linear device.

CW and SSB (or controlled-carrier AM) are preferred emissions. The repeater has an input frequency passband between 432.125 and 432.175 MHz. Output frequency passband is between 145.975 MHz and 145.925 MHz. The output passband is inverted. Upper-sideband signals transmitted to the spacecraft will be received on lower sideband.

A received signal on 432.125 MHz will be relayed on 145.975 MHz, and similarly, a received signal on 432.175 MHz would be relayed on 145.925 MHz. Tune up the band at 432 MHz and down the band at 146 MHz. This repeater also has a telemetry beacon on 145.980 MHz.

Any receiver with a good two-meter converter should be able to receive signals from this repeater, even with a simple antenna. Since the spacecraft antennas associated with this repeater are circularly polarized, linearly polarized antennas will be suitable for ground use. If linearly polarized, the receiving antenna for this repeater can be the same one used to work through the two-to-ten meter repeater.

On the transmitting side, the recommended ERP is in the order of 300-400 watts. A 30-watt transmitter will require an antenna with a gain of 10-12 db. It would be preferable to obtain, or even build, a 300-watt amplifier and use an omnidirectional antenna to reduce antenna pointing accuracy requirements.

The spacecraft will have circularly polarized antennas for this repeater. Linear antennas at ground stations will work fine. It is important not to forget circularly polarized ground station antennas can be expected to provide as much as 3 db more signal. That might make the difference between making or missing a contact. All

circularly polarized antennas used with this repeater should be right-hand circularly polarized (RHCP) in the Northern Hemisphere and left-handed circularly polarized (LHCP) in the Southern Hemisphere.

The easiest way of generating RF for the 432 MHz uplink is to convert a surplus 450 MHz FM transmitter for CW operation on 432 MHz. That should not be too difficult, even for inexperienced VHFers. Other techniques are to triple 144 MHz signals to 432 MHz or double 220 MHz to 440 MHz and use a different crystal to transmit on 432 MHz. The best method is to build a transverter from, say, 50 MHz to 432 MHz. That would allow SSB and CW operation with full VFO control.

3. 435.1 MHz Auxiliary Beacon

The Canadian 435.1 MHz beacon will usually be operating when the spacecraft is in Modes A or D. It will not operate while the spacecraft is in Modes B or C because of interference effects with 432 MHz uplink of the AMSAT Deutschland repeater.

Extremely good signals were copied from the OSCAR 6 435.1 MHz beacon during the early months it was operating. For receiving signals, a receiver with any good converter and antenna will be suitable. A circularly polarized antenna would be preferable. The converter will need a new crystal so as to cover 435.1 MHz instead of the more conventional 432 MHz.

Doppler shifts of the order of \pm kHz can be expected on signals. Be prepared to keep retuning during the pass.

4. 2304.1 MHz S-Band Beacon

The 2304.1 MHz beacon, built by members of the San Bernardino Microwave Society in Calif., will transmit a "HI" in Morse code, then follow with 30 seconds of carrier for tracking purposes. The beacon contains a 30-minute timer to ensure positive control that will shut down the beacon 30 minutes after it is commanded on. The 2304.1 MHz beacon can be keyed with Morse code telemetry on ground command.

Link calculations have been done for the spacecraft-to-ground communications link to determine the kind of equipment needed. Consider a typical ground station using a four-foot dish and a converter with a 6 db noise figure. The link calculations are as follows.

Spacecraft output power (100 mW)	+ 20 dbm
Path loss to ground for 2000 miles	-170 db
Thus, signal level at antenna=	-150 dbm
Gain of four-foot dish	+ 27 db
Polarization and line losses	- 6 db
Signal power at converter input	-129 dbm
Noise power in a 500 Hz bandwidth	
6 db noise figure receiver	-141 dbm
Thus, received signal-to-noise ratio is	+ 12 db

This was calculated for a four-foot dish and a receiver with a bandwidth of 500 Hz. The Doppler shift for an overhead pass at this frequency has been calculated to be \pm 55 kHz. The 3 db beamwidth of the four-foot dish is only 7.5°. Anybody trying to track the S-band beacon is going to have a lot of fun. (For anyone who wants to build a converter, Ham Radio contains a fairly simple design in the March 1972 issue. Another 2304 MHz converter is described in January 1974 QST.)

Copying Telemetry

OSCAR 7 contains two separate telemetry encoders; a Morse code unit identical to the one flown on OSCAR 6 and an 850 -Hz shift teletype encoder designed and built in Australia.

Morse Code Telemetry

The Morse code telemetry format is identical to OSCAR 6. The format is arranged in six lines of four words. The first digit of each three-figure "word is the line identifier. Each telemetry frame is separated from the next by the "HI" identifier. The code speed, like OSCAR 6, is commandable between 10 and 20 wpm.

Teletype Telemetry

Sixty channels of data are monitored and encoded by the WIA Project Australia teletype telemetry encoder. The data is formatted as ten words per line in six lines of data. Each data word contains five digits. The first two digits indicate channel number, and the last three represent encoded sensor data digits.

Between each data frame are two lines of digital data that provide information on the spacecraft clock and command register status.

The encoder has two operating modes. There is a stepping mode in which each channel is sampled in turn, and a single-channel "dwell" mode in which one channel is sampled continuously. Each line of data is followed by a carriage return, line feed and figures signal, to keep the printer in upper case.

The teletype data is transmitted from the spacecraft in Baudot code using 850-Hz shift. Signals will be frequency-shift keyed on 435.1 MHz. It may be necessary to reverse mark and space tones in the ground station terminal unit to receive AFSK telemetry.

Doppler on the 435.1 MHz beacon will be about 10 kHz for a directly overhead pass. Tests were conducted from WA3EWJ transmitting FSK RTTY through the two-to-ten meter repeater in OSCAR 6 during January 1973. It was found the 5 kHz Doppler shift encountered did not cause any appreciable errors. It was just necessary to keep retuning the receiver every few minutes. The tuning rate will have to be increased to cope with the extra Doppler shift.

A better idea is to use a special IF with a 25 kHz band-width and a phaselock loop teletype terminal unit using one of the phaselock integrated circuits now available at low cost.

Summary

This paper has briefly described OSCAR 7, its projected orbit and type of equipment needed to operate it with. A summary table of the frequencies of interest is presented below.

Beacons:			
29.50 MHz	Mode A	Associated with the two-to-ten meter repeater	
145.90 MHz	Mode B, C	Associated with the 432-to-146 MHz repeater	
435.10 MHz	Mode A, D	Teletype, morse code or code-store keying.	
2304.1 MHz	Mode A, B, C, D	CW tracking beacon and Morse code telemetry.	
Repeaters:			
Mode A	145.85 MHz to 145.95 MHz input		
	29.40 MHz to 29.50 MHz output (non-inverting passband)		
Mode B, C	432.125 MHz to 432.175 MHz input		
	145.975 MHz to 145.925 MHz output (inverted passband)		

It's hoped these reading this article will try their hand in participating with OSCAR 7, the most advanced satellite yet developed for the amateur service.

(Much of the material presented through the courtesy of AMSAT and the AMSAT Newsletter)

"Amateur radio operators enjoy a hobby which not only brings them great pleasure, but which makes a significant contribution to public safety.

They provide emergency communications in times of disaster, relay needed medical information, and provide a means of direct communication between servicemen overseas and their families." Linwood Holton, Governor, Commonwealth of Virginia

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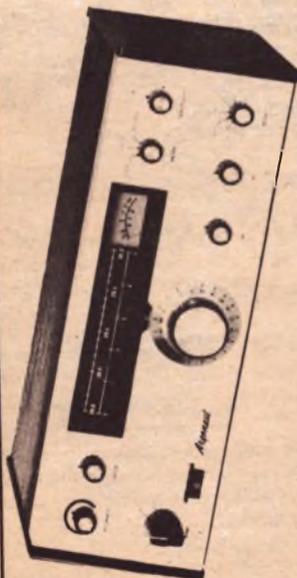
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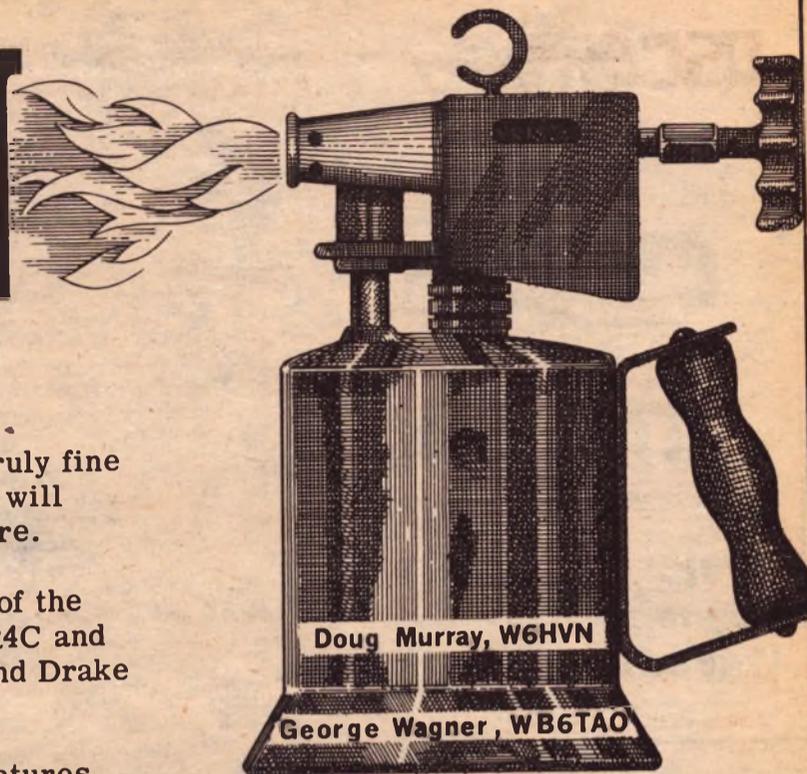
For mobile on the HF bands, go all solid state with either the Atlas 180 or the Ten-Tec Triton series.

Another popular rig is the Hallicrafters FPM-300. We really stocked up on this one and at this time have only a few left.



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Realistic DX-15A RCVR	\$119.95
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National PS	\$69.95
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Collins 204F1 XMTR, 2-30 MHz, original cost \$21,000, 2-10 KW PEP, Pair Eimac 4CX1500B's	\$3,950



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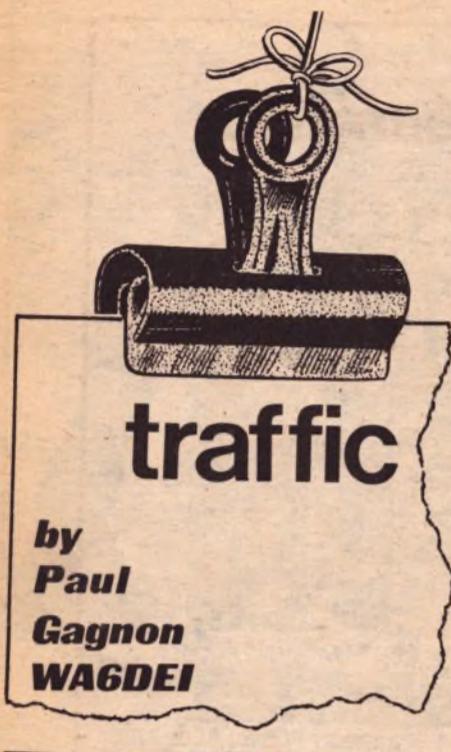
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tions are invited to check-in. Do you have any traffic to list? Answer in pre-arranged order. The liaison station to the Fifth Region Net please check in; over." All of this is contained in that initial call-up. You can immediately see the need for the "QN" signals. Imagine having to say all that in English at the start of the net. Half the net time would be over before anyone could check in.

The first thing for you to do is obtain a copy of operating aid 9P from ARRL (free) or from your SCM. The QN signals are also listed in the Callbook. After you have this you can begin to make heads or tails out of what is happening on the net.

The NCS asked for stations in pre-arranged order. So, when can you check in? The pre-arranged order is to get liaison stations and stations with traffic checked in first as they will be handling most of the traffic. After they are checked in NCS will call for anyone. OZK DE W5TNT QNI QTC? Now is the time for you.

If everyone on frequency tries to check in at once the net control will hear nothing but a mess. In order to keep it in hand you should use a "hail sign". This is nothing more than a letter or a combination of letters that you choose to give the NCS a choice of who wants to check in (one at a time). It may be the last two letters of your call. For instance, my hail sign is usually "EI". If the NCS responds with "EI" I know he is listening to me. I then proceed to call him, sign my call and list my traffic.

There is also a proper way to list your traffic. Generally, you list your traffic for cities in the area the net covers by names of cities and your traffic going out of the local net coverage area by saying "thru" or the name of the next higher level net the liaison stations are going to. For instance, for our OZK net example, traffic you have for Little Rock, Fayetteville, Arizona and New York would be listed as QTC 1 Little Rock, 1 Fayetteville, 2 RN5.

The first two would be cleared by stations in those cities when they check in. The latter two would be sent to the designated liaison station who is going to the fifth

region net later in the evening. Where they go from there is a discussion for a later column. Suffice it to say they are carried by other liaisons stations and nets to their destination.

Once the NCS has a listing of your traffic he can clear it as outlets become available. Don't get impatient. He may have a lot of traffic to clear. He will get to yours as soon as he can. Put be alert. He will generally call you by the suffix of your call and wait to hear your response. You respond with a "K" or "HR" (for here) When he knows you are listening he will tell you where to go to send your traffic. Traffic is usually handled off-frequency in order to clear most of the traffic in the shortest possible time. Stations may be spread out up and down 5, 10, and even 15 kHz all sending at once.

If the Little Rock station is up 10 kHz sending traffic the NCS will tell you; "QNQ U 10 Little Rock W5DTR after W5BED." This tells you to go up 10 kHz from the net frequency and transmit your Little Rock traffic to W5DTR after he is thru with W5BED.

Another possibility is if the station you are to send traffic to is also still on net frequency. In this case NCS will call you, and after your acknowledgement, he will call the other station and tell you both to move up 10 kHz and pass your traffic to him. Here are a couple of hints: Give the NCS an indication you have heard and understood and will comply by sending a single "G" or "GG" to let him know you are going. Otherwise he doesn't know if you heard, or not. Then when you go up 10 kHz let the station who is to receive the traffic do the picking of the frequency and the calling. He will be receiving so must have a clear frequency. If he can hear you it doesn't matter if you have to send thru QRM.

When you are through and go back to net frequency there is no need to tell the NCS what you did. Simply check back in with your call suffix. He will assume all is fine and you cleared what he sent you up to clear and he will check it off his list.

When you have sent your traffic and he has none left for you, he will tell you that you may check out of the net (QNX). Never

leave until NCS lets you go. He may have traffic listed to give to you.

That's all there is to it. Listen to your local CW net a few times and follow some stations off frequency to get the hang of it. Then you're ready to QNI and have a ball. Welcome to the world of CW traffic handling.

QSL

The following items were received this month for transmittal herein. Send your items to WA6DEI, 1791 Hedon Circle, Camarillo, CA 93010.

The new address for the Idaho/Montana Net Manager, William M. Smith(W7GHT), is P. O. Box 241, Craigmont, Idaho 83523. This net meets on 3582 at 0230Z weekdays.

The Hit and Bounce Net (7070 kHz at 1230Z daily) handled over 1,000 messages in December. They have lots of traffic on that net. Contact Kurt T. Meyer, (W8IBX), for information.

The Route Manager for the New Mexico section, Hubert Williams, (W5UH), advises that a National Traffic Frequency has been set up on 7070 kHz and is monitored daily from 8:30 a. m. to 4:30 p. m. (local NM time). This net work will be used heavily during emergency situations to handle traffic but also every day to clear regular traffic that you might have. This is a good place to clear your traffic if you must send it before your local net meets or you miss your regular traffic net schedules. Give NTF a try. As it goes with every new net, they will appreciate your traffic.

The new manager of the Southern California Net (SCN, 0130Z 3600 kHz daily) is Chuck Miller, (WB6VKU), 1829 Arnold Way, Alpine, Calif. 92001.

Questions and Answers

Last month we mentioned that we will be starting a question and answer part of this column. Some questions have already been received and answered and we will start answering some of them here. If you have some question that has you baffled please ask. Send them to WA6-DEI.

A friend of yours talked you into checking into the local CW net and you agreed to give it a try. You get the rig all tuned up on the net frequency and patiently wait for the starting time. Then it starts...

CQ CQ OZK OZK DE W5TNT W5TNT OZK OZK QND QNN W5TNT QNZ QNI QTC? QNA RN5 K

Wow! What was all that??? Eoy, are you ever confused now!

That is a general call-up for a CW net. If you haven't checked into one before, it can be frightening. Even if you have checked into a few nets before, it still may have you baffled. Here is a translation in the language of the "button pushers"---"Calling all stations wishing to check into the Arkansas CW traffic net (OZK) from W5TNT. This is a directed net and your net control station is W5TNT. Please zero beat net control's signal. All sta-

Why nets?

by George Stevenson, WB6OJP

Bolivia was my "home" in 1967 and 1969. I was principal of the Cooperative School in Cochabamba. We found the only reliable means of communication with the outside world was Amateur Radio. I was licensed as CP5DF and had a Swan 500 and a TA33 beam up 35 feet.

My first license was a second-class license which allowed operations on only 40 and 80 meters. To advance to first-class you had to secure 100 QSL cards from neighboring stations. This project, involving 200 contacts to produce 100 QSL cards, took four months.

With our first-class license, 15 meters was best for contacts into the United States. We discovered the Halo Net, organized primarily to help missionaries in South American countries. They operate daily at 1800 GMT, on 21.390 MHz. CP5DF became one of their chief contacts in Bolivia. Iran many phone patches to the States for missionaries, peace corps, exchange students, and other citizens of the US and of Bolivia, who had need to reach relatives or friends in the States. Through this experience I decided I would try for a license in the US.

I returned to the States in July of 1969. I had my Novice license on 16 Jan. 1970 and I made General on 26 March 1971.

My experiences in Bolivia proved beyond a doubt the value of nets. So in the US, I began looking around for nets. I found 3.952 and the grand bunch who work so hard to keep the net working so, 5 May 1971 I became a member of Western Public Service System.

We just completed a 9,600 mile trip which included a reunion of my high school class in Detroit, Mich. We returned through Canada, including the Calgary Stampede and visited five of their National Parks. Heading south, we visited my sister in Seattle.

Then we came down the Oregon coast to see Royal and Bobbie Underwood's site for their new retirement home. Royal is WB6-UAW and Bobbie is WB6BAC.

During the trip, we were mobile with the Swan 500C and a Swantenna on the Ford pickup. For the first couple of days, we kept in touch with WPSS, but lost them in the distance when we left Arizona.

We were able to keep in touch with our daughter Doris Porter, WA7JDO, in Phoenix through several nets. The one we used most often was the YL System which operates at 14.332 MHz. Another interesting net is the Country Hunters Net that operates above the YL System at 14.340. The Eye Bank net was helpful. They operated at 0045 GMT daily on 7.290. Although we found high noise levels many times, various members of the nets were willing to relay for us. And we were able to contact WA7JDU during the whole two months of our trip.

I had a permit to operate in Canada, and operated as WB6OJP/VE3, VE4, VE5, VE6, and VE7.

I like nets. I believe they perform a most useful function. I'm glad to do what I can to help them.

(From WPSS "Newsletter")

WEST GULF EMERGENCY NET
3955 KHz - 6:30 pm Mon - 7:30 am Sundays
Zone 1

3955 KHz - 6:15 pm Thu.- Z-2 NCS WA5-FVH
3760 KHz - 8:00 pm Tue. -CS, NCS K5SJA
3955 KHz - 7:00 pm Wed. -NCS W5ZPJ
7250 KHz - 7:00 pm Mon. -NCS W5ME

TEXAS TRAFFIC NET:
3961 KHz - 6:00 pm Daily

7290 NET:
7290 KHz - 9-11 am and 1-2 pm Daily

TEXAS CW NET:
3770 KHz - 7-10 pm Daily

DELTA SIDEBAND NET:
3905 KHz - 6:00 pm Mon. - Fri.

TEXAS SLOW SPEED CW NET:
3748 KHz - 8:00 pm Saturdays and Sundays

GULF COAST SIDEBAND NET:
3925 KHz - 6:30 pm Daily

HAVE YOU EVER WISHED THERE WAS A "WESTCARS"?

by Alma Bourhenne, WB6UNT

Have you ever tried to break a QSO---
And
Wished there was a "WESTCARS"?

Have you finally been acknowledged
But told to come back in half an hour
Because you weren't Q5---
And
Wished there was a "WESTCARS"?

Have you been told they couldn't help
Because they had no phone or were in
The wrong area or didn't have time---
And

Wished there was a "WESTCARS"?

Have you ever traveled where there is no "WESTCARS"?

Have you ever seen a truck turn
Over in the road---
And

Wished there was a "WESTCARS"?

Have you helped a dazed and injured
Driver climb through the window---
And

Wished there was a "WESTCARS"?

Have you seen a car roll over and over
On the highway in front of you
A body fly ragdoll through the air---
And

Wished there was a "WESTCARS"?

Have you sat in weeds to tend and
Soothe a girl in screaming agony---
And

Wished there was a "WESTCARS"?

Have you tried to aid a bleeding man
Wandering dazed---
And

Wished there was a "WESTCARS"?

Have you watched and prayed as a
Girls eyes glazed---
And

Wished there was a "WESTCARS"?

Have you seen the ambulance
Disappear, siren screamin, but
Been afraid it was too late---
Because
There wasn't any "WESTCARS".

I have! All within 43 hours.

Mailed from Mazatlan, Sinaloa, Mexico

(From WCARS "Sentinal")

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The Nobility Net

The Nobility Net of North America is a non-profit gathering of Shriners and members of the Masonic Order who have dedicated their services in behalf of the world's most rewarding philanthropy... the cost-free care and rehabilitation of crippled and seriously burned children in our 22 Shriner's Hospitals, throughout Canada, Hawaii, Mexico and the U. S. A.

Among our many aims - to make available to parents of crippled children, who are unable to afford the high cost of medical aid, knowledge of how to secure these surgical services free of charge; aid in providing transportation for patients; setting up of blood banks and creating good relationships between Shrinedom and the public who are not aware of this great philanthropy.

There is no initiation fee nor are there any dues. All that a Noble or Mason need do is check into the Nobility Net which meets each Saturday at 1700 GMT, on 14. 310.

(de International Coordinator, W3FQT)



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by Nick Hauck, K6QPE

At last months DX Convention in Fresno, Glen Tillack, W6KZL, informed me that he discovered a new facet to his SSTV hobby. He makes tapes for many of our foreign amateur friends, who only are using monitors. Over in Hawaii, Don Muth, KH6-HJF, also is making tapes for many of the HL9 boys. A small group of the 20 meter gang, get together weekly, and discuss their "new service". Those in this group are Carl Bieber, K2DF/KA2AI, Joseph Glockner, WA6AXE/KG6, Albert Stewart, KL7ALJ, KH6HJF, W6KZL and William Boykin, HL9WI, good luck fellas on a worthy cause.

Recent communication with Robert Suding, W0LMD of Lakewood, Colorado, has informed me that at last months 3-day Dayton "bash", he presented the "Slow-to-fast-scan Conversion". This is what we have all been waiting for and with the combined efforts of W0LMD, Robert Suding, James Thomas, WB4HCV, George Steber, WB9LVI, Don Miller, W9NTP and Michael Tillent, W6MXV, we are all to benefit from their combined efforts.

They also have a color SSTV scan converter, which displays color SSTV on your

home color TV sets. They indicate color cameras will be ready by this fall. Time will come when our XYL's will have to come into the radio shack to put on your make-up! After all, Dean Martin has his own make-up man, or is it a woman?

Going back to "Dr. Robert", as he signed his letter, he wishes I "would lay off that obsolete junk", speaking of commercially made gear. Come on now, Dr. Robert, are there still some of you technicians out there that still look down their nose at us appliance ops?? Speaking of those every-day, never-break-down, beautiful picture producers, I am now the proud owner of the ROBOT LINE. Since there are some of the SSTVers who are using ROBOT for the weather satellite receiving pictures, I just couldn't wait to be able to get the same weather pictures that the National Weather Bureau are getting. Soon to be published in another radio publication, is an article by Bob Schlaeman, WA7MOV, explaining how it is done with the excellent ROBOT gear. I understand from Bob and Dale, W6YFT/7, who incidentally is my brother, that they have tried to interest Joe Hawkins, ROBOT's leader, to build the modification into the Monitor. The only outward appearance change would be about 5 miniature switches. This total control over all reception would make it very easy to go to the WX receive mode or regular SSTV operation. I hope that ROBOT will make the factory mods, and I would be one of the first to get my ROBOT down to San Diego for the conversion.

When I ordered the ROBOT, I asked for the Cosmicar 25 mm f 1.4 Macro lens. This lens is just about the best choice for all around usage. Since it is a macro lens, it will get down very close for all small detail work, such as coins, stamps and money. Macro comes from the Greek word, makros, which means long or large. Another ROBOT goodie is the 15 foot cable. This is a must. When you position

your monitor in your shack, you must be far enough away so that any lights that you use do not interfere with monitor viewing. Guess by now you can see that I am really sold on my ROBOT SSTV station. Something else I noticed right away was this SSTV equipment is quite a bit smaller than what I had used prior to the ROBOT purchase.

In another amateur publication, I noticed that an Eastern company has come out with some gadgets on it making closed circuit TV compatible with the video output. The ad showing the new model C1, also states that they were responsible for putting high voltage on the moon. Anyone want to prove that statement? Next space vehicle leaves on the 15th of next month. Speaking of space and all of that that lies beyond space, out there in the sperial galaxy that surrounds our earth, there is a radio QUASAR flickering like a star broadcasting radio waves. The bright corona owes its origin not just to the QUASAR itself, but is comprized of a large galaxy of stars evolving in this galaxy. This particular QUASAR we wish to identify was chosen after its existence was observed after remaining subduced for millions of years. Its radio signal now being received, started thousands perhaps billions of light years ago. Long, long before our solid state designed equipment was conceived. This firey, unpredictable nucleus in our solar system, is under present study down in Pasadena, California, at the Hale Observatory. Radio astronomer's interest during the early 1950s, was given a great boost with design of sensitive telescopes and radio receivers. Present day research has been intensified by many radio astronomers to the extent of QUASARS being identified and named. BL Lacertae, sounds like an emyzne rather than a star in the Northern sky. Television satellites put up by amateur radio operators much like OSCAR, will give us communications even Dick Tracy didn't

think would come about. Well, look to the future or better yet, read "The World-radio News" for next months SSTV news.

Sp...ing of the future, from time to time it might be worthwhile to ponder the direction of SSTV. Will it be as Copthorne Mac Donald uses the phrase, "a toy or a tool." What is the potential of SSTV in the long run? Will it be but a toy with which we play, mesmerized by all the knobs to twist or can it be something better? Some people think of SSTV as a "private window on the world".

Is it possible what we "program" is far more important than the fact that we are able to do it? Is there a "next step"? Will we do more than merely prove that the laws of physics work?

Eventually, with the stationary satellites and the signals no longer dependent on the vagaries of the ionosphere, the "fishing" aspect of ham radio will leave us. Solid communication with all points of the globe will then cause us to be more concerned with the message or the "intelligence" that the carrier carries.

Will we be up to the challenge and the responsibilities?

SSTV is truly the wave of the future. We don't have much use for those who say the picture doesn't look very good and thus dismiss the potential. Look at it this way, in the beginning of radio the signals only went a mile or two. Some could have dismissed radio as not being useful. But, others pressed on and made it cover more distance, and then more distance, and it went on from there.

And so it is, today's SSTVers are pioneers also. Those who take it up in the years to come will have a debt of gratitude to those who today are making the great strides forward.

Interference

The Honorable Torbert MacDonald
Communications and Power Subcommittee
Room 2125
Rayburn Building
Washington, D. C. 20515

Dear Sir:

I am pleased to know that we have a proponent in Congress who is sympathetic to the problem of interference to electronic devices from radio emissions.

The problem is getting worse and I see no prospect of solution short of legislative control.

An alternative to outright legislation compelling manufacturers to certify performance tests of interference rejection of their product, would be to compel manufacturers to place a disclaimer on their product which has not been tested such as:

"This device is not guaranteed to reject interference when used in the vicinity of strong radio sources".

As you know, the crux of the problem is a monetary one, because interference can be alleviated by shielding, filtering or redesign, but at the expense of someone's time, material cost, or profit.

However to solve the problem we need a reasonably informed public such as a disclaimer would provide.

Yours truly,
Katashi Nose, KH6IJ

On the 3900 Net on Sunday mornings on 3900 kHz, the 3900 Club of the Air assembles for the sole purpose of being informed of what is going on in the Amateur World. This usually takes place about 9:15 or 9:20 and is usually 15 minutes in length. You are invited to listen, or better yet, to check in, if you do, you will be sent information on the 3900 club.

de Dick Pitner, W0FZO

OSCAR 6

AMSAT-OSCAR 6 REFERENCE ORBITS
Equator Crossing Times

The following data for AMSAT-OSCAR 6 are supplied by AMSAT. The times are in GMT, and Longitudes are in degrees west of Greenwich.

Period = 114.99455 minutes. Longitude increment = 28.7487 degrees per orbit.

Note that orbits repeat on a 263-orbit cycle every three weeks (i. e. every 21 days), but 3.6 minutes later and 0.9 degrees further west.

REV	DATE	TIME Z	LONG W
7430	JUNE 1	0039.2	57.6
7443	JUNE 2	0134.1	71.3
7455	JUNE 3	0034.1	56.3
7468	JUNE 4	0129.0	70.0
7480	JUNE 5	0028.9	55.0
7493	JUNE 6	0123.9	68.8
7505	JUNE 7	0023.8	53.7
7518	JUNE 8	0118.7	67.5
7530	JUNE 9	0018.7	52.5
7543	JUNE 10	0113.6	66.2
7555	JUNE 11	0013.5	51.2
7568	JUNE 12	0108.4	64.9
7580	JUNE 13	0008.4	49.9
7593	JUNE 14	0103.3	63.6
7605	JUNE 15	0003.2	48.6
7618	JUNE 16	0058.2	62.3
7631	JUNE 17	0153.1	76.1
7643	JUNE 18	0053.0	61.1
7656	JUNE 19	0148.0	74.8
7668	JUNE 20	0047.9	59.8
7681	JUNE 21	0142.8	73.5
7693	JUNE 22	0042.8	58.5
7706	JUNE 23	0137.7	72.2
7718	JUNE 24	0037.6	57.2
7731	JUNE 25	0132.6	70.9
7743	JUNE 26	0032.5	55.9
7756	JUNE 27	0127.4	69.7
7768	JUNE 28	0027.4	54.6
7781	JUNE 29	0122.3	68.4
7793	JUNE 30	0022.2	53.4
7806	JULY 1	0117.1	67.1
7818	JULY 2	0017.1	52.1
7831	JULY 3	0112.0	65.8
7843	JULY 4	0011.9	50.8
7856	JULY 5	0106.9	64.5

Animal Rescue

by Bill Cheverton, WB6SQZ

The San Diego County Humane Society sponsors a rescue group titled San Diego County Animal Rescue Reserve. The Animal Rescue Reserve provides emergency animal rescue and evacuation service in the event of natural or other disaster.

The Animal Rescue Reserve was formed following the disastrous 1970 fires in this area. It's a volunteer organization which provides services to the public, free, during any disaster. The Reserve is an autonomous division of the San Diego County Humane Society which provides facilities for headquarters and administrative functions at the Shelter, 887 Sherman Street, San Diego CA 92110.

The Animal Rescue Reserve is divided into 5 operational sections: Headquarters, Communications, Rescue Mobile, Receiving, and Liaison.

Headquarters is responsible for the organization, training, and operation of the Reserve. During operation it is located at the Shelter and directs overall operation by radio.

Communications is responsible for the operation of the radio network. Their equipment consists of two-way radio-telephone equipment operated on Amateur Radio frequencies. It is this section that makes possible the effective deployment of the reserve. Members of communications must be licensed Ham Radio operators.

Rescue Mobile is the field force of the Reserve during an emergency. It is directly responsible for the actual rescue and evacuation of animals during an actual emergency. They are controlled by a field headquarters known as the Dispatch Point.

Receiving is responsible for receiving, identifying, logging, securing, care and feeding of the animals delivered to them by Rescue Mobile units. The receiving section holds animals during the emergency or until they are claimed by their owners.

Liaison: The Rescue Reserve works in close cooperation with fire and police agencies and handles requests for service from such agencies as necessary. The liaison section remains in close contact with state, county, and city fire departments, police departments, sheriff's officers and highway patrolmen during all emergencies.

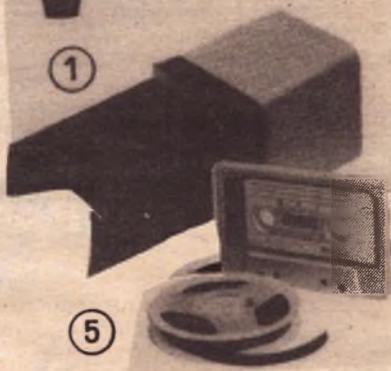
When notified of an emergency, Headquarters, Communications, and Rescue Mobile Lieutenants are notified immediately. WA6SYJ Radio is manned at the Shelter and one or two communications scout cars are sent to the area to examine the emergency and report back to Headquarters, Capt. Cummins and a Communications Lieutenant and a Sergeant go to the dispatch point to set up the field command post. When the field command post is established and in communications with all units, command shifts from Headquarters at the Shelter to the field command post. Personnel are called and sent to assembly areas to await dispatch into service.

Communications uses our San Diego Repeater (.04/.64) and Palomar Repeater (.13/.73) for communications as well as .94 simplex and .52 simplex, all on 2-meter FM. Possession of a valid amateur radio license and membership in either the San Diego Repeater Association or the Palomar Repeater Group is necessary for volunteers.

(From "Squelch Tales" San Diego, CA)

"I took my exam and anxiously waited for that letter. When I came back from shopping one day the OM was standing at the door to greet me and in his hand was a large brown envelope. We opened it. He was as excited as I. From that day forward, a whole new world opened up for me"...Cathy Hrischenko, VE3GJH

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E	25	1.4	6	\$ 65
F	50	1.9	42	\$ 55
G	150	3.2	96	\$ 89
H	20-80	2.5	60	\$220

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maritime mobile

by Bill Yost, WA6PIU

ABOARD THE "MAGIC DRAGON"

by Jane and Michel DeRider

Magic Dragon has been away from her home port of Canoe Cove, near Sidney, E.C. (Canada) for over a year now, enjoying a fourth major voyage in this the tenth year of her eventful cruising life.

She is holding up amazingly well to the miles under the keel and the months on the move. So is her crew.

As is our pattern, we tend to favor leisurely stays in favourite haunts--Fall in the San Francisco Bay area. Winter in Newport Beach, both once again memorable for the over-whelming warmth of California hospitality.

We crossed the equator on May 4th, the 17th day of a 3000 mile 22 day passage from the Marquesas, Calif. to Hiva Oa in the Catlines. Becoming shellbacks, we celebrated with a mid-ocean champagne and steak dinner thanks to our amazing little gimbaled propane refrigerator. A surprise gale the first night out made the rest of the voyage a comparative cup of tea.

For the past six months we have happily poked about French Polynesia. Exploring three very different island groups: the wild volcano group Marquesas, Tuo-Motu's coral atolls, and the fabulous fabled society islands of Tahiti, Moorea, Bora-Bora, Raitea, Tahaa and Huahine. We have seen a happy combination of spectacular mountainous islands surrounded by protective fringing barrier reefs.

The islands are being visited by an ever increasing number of yachts. Vessels of many nations share an anchorage - U.S., French, British, German, South African, Dutch, Swiss, Belgian, Japanese, Aussie, New Zealand, Czechoslovakian. And even one single handed Czechoslovakian. Also, an astonishing high percentage of Canadian boats. We have encountered twelve so far.

Our log tells of trade wind voyaging, Polynesian feasting, dancing and singing; of land giant wahoo and hunting wild pig and goat; of diving in coral barrier reefs and of shooting surf by moonlight; of shell leis and flower crowns, fairyfins and blue noddies; of taste sensations such as roast dog, barbecued goat, grilled booby, raw fish, marinated octopus, fresh-plucked marmeloutse. One of the specialties, du bateau is now carried wild Boar a la Kerr Widemouth. Just one of many unforgettable memories is the view down into the famed Typee Valley from a peak on Nuku Hiva after a slithering motorcycle climb up a rutty red mud jeep trail.

Our log reminds us of sail handling in fierce doldrum squalls; of bouncing uncomfortably in surly anchorages as a result of distant high latitude southern win-

ter gales; of being driven aground on coral after abortive midnight drills in gusty winds and torrential rains.

Our log tells of anxious red eyes searching out elusive atoll landfalls; of no-no bites, most unpleasant eruptions, and of weak, aching tingling limbs after a case of ciguatera fish poisoning. 'Taint all beer and skittles....

When not actually under way or tied up at Papeete's famous yacht quai, each day begins with an early morning swim over the side in a succession of fabulous anchorages which change often enough so that at times we have difficulty in remembering where we are. Weeks slip by so fast, too quickly

We keep occupied with ever present Honda maintenance, with dinghy and Dragon expeditions, snorkeling and scuba diving with "boat hopping" for shared meals and shared experiences, and with visiting the earth people wherever we go. We have somehow had to find room to house such varied things as a compressor to fill our Scuba tanks, a Marquesan carved Ukelele, a growing shell collection, and a bean and alfalfa sprout garden.

We have a ham radio transceiver, a Swan Cygnet with which we keep in touch with family, friends and fellow voyagers through SSE radio. Mate Jane is the Radio operator known as "Dragon Lady". Her identifying calls are the Canadian High seas maritime call VE0MCG and FO0DL for use in French Polynesia.

Our nesting instincts have resulted in rental of Post Office box in Sidney (Box 2012) British Columbia, Canada. Mail sent there will be forwarded to us wherever we are. Meantime we can also be reached c/o La Banque de l'Indochine, Papeete, Tahiti, FP 120.

It looks as though we'll continue to cruise about in French Polynesia till March or so, then carry on to the Cook Islands, Tonga and Fiji. All going well we'll head for New Zealand a year from now for a change of climate and some serious re-provisioning. These tentative plans are subject to revision upon impulse with little or no notice as spirit moves or weather and whim directs.

See you in Sidney one fine day.

(From Zero Beat, Victoria B.C.)

The episode of the "Magic Dragon" is a typical example of the role played by Amateur Radio aboard numerous small boats the world over.

Not only does the ham rig provide excellent emergency coverage, but it provides means for developing many new friends throughout one's travels. Just think how nice it is to sail into an unknown port in a strange land to be greeted by friends you have made over the air.

During your journey imagine the comfort of being patched in to your friends via the dynamic service of our amateur nets. Contrast this with the "maybe get through" marine operator who, in a tired voice, tells you to stand by while she handles 14 other stations.

After hanging on for over an hour, your call is at last put through. But don't talk too long. Every minute is costing you money. And besides, other stations are waiting their turn.

Cruising sailors have often asked me about the cost of Amateur Radio. It's, of course, easy to quote the cost of a rig. But one also explains that amateurs become very adept at building and modifying their equipment.

It's difficult, however, to put a price on the security, friendship, goodwill, comfort and pleasure that offsets the cost of ham gear.

I would like to extend the invitation to anyone interested in marine ham installations to address any questions to this column c/o The Worldradio News, 2509 Donner Way,

Sacramento, CA 95818. We also invite your "sea stories"

I've enjoyed meeting some of our sailing hams at the various west coast ham conventions. Hopefully our wakes will cross again; if not in some secluded tropical cove, certainly via the ionosphere.



by Jack T. Shepherd, W8OMY

Although the amateur regulations of the Federal Communications Commission permit most licensed radio amateurs to run a kilowatt of input power in their transmitters, there is also another regulation which states that only the amount of power necessary to support the communication should be used.

There are many amateur stations capable of running a full kilowatt, but many others are content with much less power.

In contrast to stations running full legal power are those which operate "QRP"; "decrease transmitter power," and stations whose power is five watts or less generally use it when they are attempting to contact other stations.

It is a test of both equipment and operating ability when a two-way contact is made on the crowded ham bands using only the amount of power that would light a flashlight bulb.

QRP operation is very difficult, both in making initial contact and in maintaining it long enough to get a two-way communication established.

The regular hindrances of interference, static and fading are always present, but in addition there is the fact that QRP signal is usually faint, so that it does not take much to make it disappear completely.

This is why most QRP operation takes place on CW, under Morse code, since it can be copied in conditions where voice transmissions would be unreadable.

Ron Swain, WA8BUW, of Hilltop, OH., is one local amateur who has had considerable experience in operating QRP. Using only two watts output power he has talked to stations as far away as Portland, Oregon. He prefers to operate during the daytime, when the ham bands were less crowded, using amateur gear which he has built himself.

He also talked to North Carolina using no other power than a lantern battery. Although he has worked voice on QRP, he finds more solid contacts using CW.

Jim Eblin, K8DHW, of Columbus, OH, is another amateur who enjoys making amateur contacts with a minimum amount of power. Using nothing more than a few dry cells as power he has talked to amateurs in eight states in the relatively short time he has been on QRP.

He reports that it is much more difficult to maintain a contact on low power, and is proudest of the three contacts he has made which lasted more than a half hour each. At the first opportunity he usually tells the station he is contacting that he is running low power. This usually causes the other station to try harder to maintain contact.

Although the difficulties are many when operating QRP, there are some rewards for the amateur operator. The transmitter used is almost always less expensive, the operating gear takes up less space, and usually it can be operated without commercial power lines.

Many amateurs throughout the world are discovering for the first time how much distance can be covered with a small amount of radio power.

It's a free call?

by Jack Kardell, WB6ATM-YNIATM
The wisdom of allowing third-party traffic on the amateur bands has been quite frequently questioned. Among the objections is that it detracts from use of commercial communications and reduces their revenue. It is my contention there is little to be said for that argument.

It is my experience that ham radio, along with third-party traffic, has contributed to an increase in commercial communications.

My telephone bills from a W5 station in mid-Texas collect to my W6 location in Northern California are evidence enough for me. Put there is another rationale the following will explain.

During the past 12 years, I lived in many DX countries operating W8, HS1, HI8 and YN1. In only the last two, HI8 and YN1, has it been possible to engage in third-party traffic. These two countries are also served by efficient satellite communications systems. The cost of such service, although somewhat expensive, is not unreasonable. The time to place and effect a call is seldom longer than an hour. But that is beside the point and only indicates that modern communication has covered the globe and often replaced the old HF communication circuits. Let's see how both systems work.

The scene is familiar to all hams. The OM's trusty FTDX400 dial lights are glowing, his hand is on his fingertips, the log book is open and a pen within easy reach next to his half-filled stained coffee cup. Through the speaker comes the cry of a PY2 working a W8 who is placing a patch to someone in Northern Michigan.

The OM calls to his XYL saying, "Honey, how'd you like to talk to Fred and Mary in Detroit?"

The XYL comes into the room, wiping a hand on her apron and bearing a fresh cup of coffee. "That would be nice. If you get someone near Detroit, I'd like to talk to them. We haven't heard from them in months and that's strange."

When the QSO comes to a lull the OM breaks with W8 and asks if he will handle a call, when he is through with the PY2. The W8 comes back and acknowledges with a 5 by 9 report and QRX.

After two more phone-patches, the PY2 finally closes with the W8 who stands off a few W4's and calls the OM. By now, signal strength has dropped to S4 and is definitely not patch quality. The OM exchanges pleasantries, QSL addresses, 73, and goes to another frequency. Meanwhile muttering to himself a few choice phrases learned at sea and on construction jobs around the world.

For the next half-hour or so the OM searches the bands. He changes to a lower frequency, pops up to the 10 meter band for a chance for an opening. He then takes a shot at 40 in desperation.

About that time the XYL comes in to announce dinner, which she says is nearly ready for an hour, and testily inquires, "Have you gotten through on that call?" I've thought of several things I just have to find out from Mary."

With this the OM slams down the headphones he had gone to in desperation. He turns the power control switch to OFF. Going to the refrigerator to get himself a beer for consolation, he hears the XYL talking to the overseas operator, ---- "Yes, I would like to call the United States. Area Code 313-----."

This may not be a frequently occurring event to most operators but it has, all too often, happened to me. For me, the evidence is in. Ham radio does create traffic for the commercial communications systems that they wouldn't have had without ham radio.

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W1HWK, Fr. Dan Linehan operating from the shack of WA6CNW

VOICES OF IMRA

W1HWK, Father Daniel Linehan

Dan Linehan was born in Beverly, Mass., on August 6, 1904. He is one of four children born to the Linehan's who emigrated to Massachusetts from Ireland. Dan spent his early years in Beverly, where he completed his schooling.

On August 15, 1924 - just 50 years ago - Dan left his home for the Jesuit Novitiate in Lennox, Mass., where he completed his preliminary training in the Society of Jesus. He received his A. B. in 1930 and his M. S. in 1931 from Boston College. He finished his theological studies at Weston College and was ordained to the Priesthood in 1936.

In 1939, Father Dan received his M. S. in geology from Harvard where he continued his postgraduate studies for four years, and then taught Physics-including Electromagnetic Wave Theory and Fundamentals of Communication.

In 1951, Father Dan went to Rome at the invitation of Pope Pius XII, where he took part in the magnificent adventure of searching for the Tomb of St. Peter. "My work as to guide the archaeologist. By using seismology, I was able to determine which soil was natural and which soil had been filled in by man. I didn't get to open the grave... I just provided the geological survey for the archaeologist exploring the area and this showed him where the grave of St. Peter was located."

Father Dan's extraordinary career in the development of seismic surveying took him to the North Pole in 1954 at the request of the New York maritime lawyer, Wilbur Dow. Father was the geophysicist on the expedition where studies were being made to relocate the magnetic North Pole and he was the first to take land measurements of the magnetic pole.

Then in December of that same year - 1954 - Father Dan was invited on an expedition to the South Pole by the U. S. Navy. This was Operation Deep Freeze and Father's work would be to measure the thickness of the ice at the South Pole. He explored the 1908 camp site of the famous explorer, Ernest Shackleton, located on Ross Island. On a table inside the camp building, Father Dan found a half eaten meal of meat and bread left by someone on the 1908 expedition who had evidently left in a hurry to get back on the ship. Father took a bite of the bread which was perfectly good after 48 years.

Daniel Linehan became interested in radio in 1914, at the age of 10 years. With the assistance of a couple of local hams, he built his first equipment. It took a year to get it working and the youngster made his first transmission as "IDL" in 1915. His equipment was not very sophisticated.

It was made up of Quaker Oats box coils, cat's whiskers, spark coils, etc. He no sooner got on the air, than he had to get off. World War I restricted the operation of all amateur radio operators.

Father Dan became interested in amateur radio again in 1953, and was licensed under the call sign of W1HWK. He uses Collins gear with a 4-element Hygain 20 meter beam and a 3-element duo-bander for 10 and 15 meters. He is mobile on the lower frequencies and on 2 meter FM. His base station on 2 meters is equipped with a cubical quad.

Father Linehan's most interesting activities in radio occurred when he operated amateur stations from both polar regions in the same year. In 1957 and 58 he took his own equipment to Marble Point in Antarctica and operated as KC4USC.

It was at this time that he interested his sister, Geri McGlynn, in Amateur Radio. She used to talk over a phone-patch to him when he was at the South Pole and one day she said, "Why can't I do this for myself?" She and her OM Andy McGlynn both took the amateur exam at the same time. Andy is now WA6CNV and Geri is WA6CNW.

In 1963, Father Dan was one of a group of priests and brothers who met at Hudson, NH, just to get together for the fun of discussing Amateur Radio and how better to use it. They decided to form the Catholic Mission Radio Association (CMRA--later changed to International Mission Radio Association IMRA) Father Dan has served as president and has almost always been a director or officer of the association and in the fall of 1974, he will be host to the 1974 International Convention of IMRA at Weston Observatory.

On August 15 Father Dan Linehan will celebrate his 50th year in the Society of Jesus. Earlier in the year there will be a golden jubilee reception and dinner at San Damiano Retreat in Danville, Calif. After twenty-two years as head of Boston College's Weston Observatory, this tall (6 feet), blue-eyed, gray haired (It used to be blond) priest is officially retired, but he still works at the observatory and has the title of Professor Emeritus in the Department of Geology and Geophysics at the college.

It is very hard to separate Father Dan's professional life from his vocation as Priest... they are so intertwined. As a young Jesuit, Father Dan volunteered for mission work in India and Russia, but never saw any assignments there. He did spend some time in Jamaica sorking in a leper colony, and he has been to the "ends" of the earth, celebrated Holy Mass on the coldest continent in the world... in that part of prime earth, never touched by man. He assisted in the discovery of St. Peter's tomb, made four trips around the world for UNESCO. He has received the U. S. Navy Distinguished Service Award, the Golden Plate Award, the Antarctica Medal from the Defense Department, The Boston Medal of Distinguished Achievement, the DeForest Audion Award... "but my ordination to the Priesthood was the happiest thing in my life---I would give up all the rest for that. My priesthood is the most important work in my life."

Even today at the age of 70, he is willing to go wherever his superiors decide to send him, for being a man of God comes first with Father Daniel Linehan, W1HWK.

IMRA had a special Valentine on the net on 14 February.

Karen Hunt, an editor of Prism Magazine, a medical journal, and representing the American Medical Association, spent an hour monitoring the 1800 GMT

session of IMRA from Dr. Walt Shriner's (W9CBG) QTH. The net had a good representation of Missionary stations as 10 of the 47 check-ins were Missionary stations. Sixteen pieces of traffic were handled; two of which were urgent medical. It is hoped the observations of Miss Hunt will bring about even closer work between the MARCO group and IMRA.

In return for the extensive medical supplies and radio parts which MARCO supplies to the missions, they are seeking a survey of conditions in remote situations. MARCO would like to know the status of communications in the remote areas and they would like to get general information on status of nutrition, prevalence of disease with reference to parasites, and availability of medication in the area.

CONVENTION SITE 1974. Father Dan Linehan has offered Weston Observatory as the 1974 site for the IMRA Convention. Good accommodations, rapid transit service and the observatory for entertainment. Suggested date... late July or early August. Keep those dates open!

HR5FPB, Father Bruce Quinn, was evacuated from his mission in Honduras when he became seriously ill with Hepatitis. Father Pete Murray went to Honduras to accompany Father Fuce back to New York. Assisting in making arrangements were: HR2RP, HR5JDC, HR1RJS, and Dr. John Schindler, (W4RFA).

TG9RM, Peggy Muro, reports that Guatemala went back to Central Standard Time on 23 February. Peggy also tells us that Father Todd's (TG7WT) mother had back surgery at Loyola University Hospital in Chicago. A tumor was removed. We don't know how serious it is yet.

WA2BPV, Warren Mulhall, would like to have a layout or list of equipment in use at the missionary stations. Also, the tubes they might need. The equipment committee has a lot of tubes and parts available for missionaries. For instance... 211's which are hard to come by.

Father Joe Moran, HR5JDC, also fell victim to hepatitis. He is in Medellin, Colombia, where he was taking a pastoral course. Anyone desiring to send him a get-well-card... his address is: Instituto Liturgico Celani Carrera-Apt. 80-A, No. 18-53, Belen, La Gloria, Medellin, Colombia, S.A.

W4OMW (Bob Knapp, "Old Man Winter") will be retiring on 25 May and will have some time for the net again.

WA0SGJ, Sister Alverna, checked into the net on 28 February and surprised us all. She just returned to Rochester after taking her final quarter exam in Chemical Dependency.

YS1JEC, Enrique Canas, tells us that the Radio Association of Central America and Panama is hosting the radio convention in San Salvador on May 17, 18, and 19. All hams of Central America and surrounding areas are invited. The opening oration will be by the President of El Salvador. W0DX, R. W. Denniston of ARRL will be in attendance, too.

Brother Robert (W8GYR), represented IMRA at our Booth at the Dayton Hamfest April 26, 27 and 28.

Fr. Bob Conroy, W0OAK, had surgery on his foot again on 14 March. He is up and around, teaching his classes at St. Louis University High School, but he will be in a cast for about 8 weeks.

Fr. Joe Panizzo, WB8NGW, was in Bangladesh from 21 January to 6 March---doing photographic work. He was making

a movie on the work of the P. I. M. E. Fathers in that country.

Fr. Charles Clark, WB4OBZ, received permission from the Abbot to set up his station at Mepkin Abbey. He has a HW-7 (CW only). Hopes to have phone sometime soon to help out on the net again.

On 12 March, Sol Katz WB4EZZ, of Miami... working on a temporary antenna in an apartment... picked up Caracas, Venezuela, with an emergency medical. They were trying to locate a rather large amount of sulphur burn ointment for a 3rd degree burn patient. Everything was buttoned up tight for the night, but Sol got someone to open up and then took the medication to the airport.

WB4SFG, John McNamara sent a message in the name of IMRA to Will and Loraine Dreger (YN4WLD) in Bluefields, Nicaragua, on the occasion of the 125th anniversary of the Moravian Mission. Will and Loraine have been a part of the Mission for 27 years.

Sympathy and Prayers of IMRA are extended to: WB4SFG, John McNamara, who received word that his nephew was killed in an airplane crash on 1 March. To W6BSO, Fr. Len Bose, whose Dad, William, passed away on 16 March after a long Christian life. Also to those Missionaries who traveled the Pan American Highway regular, on the death of their good friend, Zeb Ward, on 19 March in the Canal Zone.

Ana de Ramirez (HK5AZA) received the Silver Medal from the National Assembly of Ham Radio Leagues in Colombia for distinguished service to the League. She also received the Silver Award as the Radio Ham of the Year - 1973 - in the HK5 zone, Cali Section.

Net Report

Month	Checkin	Traffic	Sessions	Time
Feb.	1029	456	24	40 hours
Mar.	1160	509	26	45 hours

Pet Peeve

My pet peeve is directed at the type of ham most of us have talked to at one time. He calls CQ or responds to one and exchanges the usual information about living in Chicago and being named John and running a TR-4 to a TH-6 beam. He then tells you how much he enjoyed the QSO and how he'd like to talk to you again and signs off. I can't imagine why he wants to talk to me again - I certainly don't want to talk to him again. I haven't been in Chicago for a few years but I had always assumed that it was still there and while I haven't given it any thought I assume that several people named John live there and I am not at all impressed with the coincidence that his TR-4 has the same input power as mine or that his TH-6 beam has six elements as mine does. Perhaps he was more intrigued by the vital information that someone named Berge lives in Sanger. I must confess that a few people have never heard of Sanger and my name is unusual, but there were a few more significant things I could have told him had he given me the chance. He has a fantastic piece of equipment in his house that gives him a "window to the whole world" and he uses it to exchange trivia. So be it the next time I run into such a ham, I think I will pull the switch and save the electricity.

73, Perge Bulbulian, WB6OSH

Mix a lot of pleasure with your fun. Combine a vacation in Canada's beautiful rocky mountains with your 1975 ham convention plans. The Calgary Amateur Radio Association will hold an international meeting on Friday, Saturday and Sunday, August 1, 2, and 3, 1975--Calgary's centennial year. It will include a Canadian division ARRL meeting, a CLARA meeting and much more.



IT'S YOU

If you want to work for the kind of a club
Like the kind of a club you'd like,
You needn't pack your clothes in a grip
and start on a long, long hike.
You'll only find what you've left behind
For there's nothing that's really new
It's a knock at yourself when you knock
your club
It isn't your CLUB - It's YOU

Good clubs are not made by men afraid
Lest somebody else gets ahead.
When everyone works and nobody shirks
You can raise a club from the dead.
And if, while you make your personal stake
Your friends can make one too
Your club will be what you want it to be
It isn't your club - it's you.

("Ham Shack Gossip", Toledo, OH)

WHO AND WHERE

by Dr. Sam Rosen, WA2RAU

THE SUCCESSFUL RADIO CLUBS

What factors play a part in making some
ham clubs highly successful while others
clubs die a slow death and disappear from
the scene?

What is the magnetic force that draws club
members to travel long distances, forego
dinners, miss their favorite TV programs
and cancel engagements just to attend their
monthly radio club meetings? The answers
may be varied, but factors predominate -
common interest - common bond. The reasons
for failure may be many but the main
reason for success predominates. In that
vein, let us examine a few radio clubs:

The NJDXA comprises approximately forty
members. No new member may be elected
to the club unless a member resigns or
expires. One prerequisite for membership
is attainment of DXCC. Their common
bond is DX. These are mature individuals,
some of whom have been members since
the inception of the club, approximately
thirty years ago. Some of them travel
long distances to get to the meeting
place. Rarely does one of the members
miss a monthly meeting. During DX pile-
ups every one of them participate in attempts
for a new DX country.

With the advent of FM repeaters, FM
repeater clubs have sprouted wings and
superseded many established radio clubs.
The Westchester FM Repeater Association
comprises about 75 members. Meetings
are held on the third Sunday night of the
month. Rarely does one find a missing
member at that meeting. Once again, you
find that a common interest is the drawing
force. Where, previously, one found SSB
sets in various automobiles, 2 meter FM
sets have now supplanted them. This com-
mon FM repeater bond now follows them on
their daily travel in their cars.

Last year I had the great pleasure of being
invited to the annual meeting and affair of
the Kenya Radio club. The enthusiasm
shown by members of this East African radio
club was heart-warming. Every member
attended. Distances travelled was no
barrier. One member flew in his private
plane from the Seychelles Island just to be
present. After the meeting, when Andre
Saunders, 5Z4KL, moved his 55-foot tower
to a new location, the entire club partici-
pated. This club appeared as one happy family.

The successful radio clubs are those where
all or most members participate in activi-
ties of the club, among which include Field

Day, RACES, Civil Defense, Sweepstakes,
etc. A club is composed of all the members
of the club, not one or two individuals who
participate in various activities while the
remaining members docily sit in their seats
and quietly disappear when the meeting is
adjourned.

An important integral function of the radio
club is in obtaining interesting and instruc-
tive guest speakers. This, at times, is a
very difficult task. When you have a club
comprising amateurs holding either General,
Advanced, or Extra licenses, a guest speak-
er may interest this audience on some tech-
nical aspect of ham radio. But, what happens
if the club contains many members in the
Novice group? How does the speaker reach
a middle ground? If he addresses the young-
er group, he will bore the older group. If
he addresses the more advanced amateurs,
the younger group will fade out of the picture.
A possible solution to this problem is by
showing slides or movies of ham activities.
At the last meeting of the club we aroused
interest of the entire club by showing the
slides of XU1AA, XV5AC, and the Spratley
Island Expedition (courtesy of W1YRC). This
was the common bond-the common denomin-
ator.

A successful radio club should show inter-
est and enthusiasm towards all its mem-
bers. Cliques with favorite person or
persons can cause a fast demise of a ra-
dio club. Encourage the Novice to ad-
vance to a higher license group. Help him.
Show him that you are interested in his
welfare. If possible set up classes for ad-
vancement of others to higher grade licen-
ses. Some of the successful radio clubs
have set up special study groups for ad-
vancement of their members, and even
take their license exams as a group.

Many clubs have set up special 2-meter
hookups so that cohesion between the ra-
dio club members is maintained during the
rest of the month between the meeting
nights.

The successful radio clubs are those in
which members take pride in belonging and
show a continuous interest in the welfare
of their club. The unsuccessful clubs are
those in which a steady dwindling number
of members attend the monthly meeting,
showing little enthusiasm in going that
night except that the calendar tells them
that it is "meeting night".

In conclusion, if you want your radio club
to survive, help it survive. Show active
enthusiasm. Join in its many activities.
Introduce new ideas and new projects for
its betterment. A house stands erect when
it has a strong foundation.

You as a member are an integral part of
that foundation - do not let it crumble!

(From "The Communicator")

The Texas A & M radio committee now
has as a member, its first female foreign
exchange student. She is Maria Del Car-
men Medrano and her call is CP5CE. She
is here at Texas A & M from Bolivia to
study psychology. Maria operates the
"S-line" at least twice a week to talk to
her father, German Medrano, CP5EH and
friends CP5EY, YV1ACP, HK3BCN and
HK3CJD/W4 on 20 meters.

Another foreign student making use of the
station is a future ham, Carlos Correa,
who is working on degree in veterinary
medicine. Once a month, he gets to his
home in Montevideo, Uruguay via 15 meters
and CX8AA. The conversation is in Span-
ish and usually lasts 30 minutes, with
English ID's thrown in as required by the
operator.

This is just one example of what W5AC
provides for the student body of the Uni-
versity. Of course, we are not limited to
just serving the university, but also as
a public service run a good deal of phone
patches, as well as serving as net con-
trol for the Southwest Traffic Net, plus
coordinating chess tournaments, etc. And
we also provide the equipment for just
plain fun operating.

Ron Hollas, WA5ZEV

ORGANIZATIONS-WHO NEEDS THEM?

by Don Inbody, WA0PBQ

People give many reasons for not joining
voluntary organizations such as radio
clubs.

It is, of course each person's privilege to
make his or her own decision about join-
ing a hobby club or organization. No law
says he must, and let's keep it that way.
But let's take a look at some of the reasons.

"The organization is run by a little clique."
Unfortunately, this is usually true, whe-
ther one speaks of the local club, ARRL
or many other organizations. That clique
is made up of those who attend meetings
regularly, accept appointments to various
responsibilities, volunteer for jobs which
need doing, suggest ways to keep things
active, and generally show their support.

In any club or voluntary organization I
know of all one has to do to become part of
the "inner circle" is to act interested and
be willing to contribute ideas, time and
talent.

"They just don't do anything for the mem-
bers." or - "They don't really represent
the members wishes and interests."
"They" is that clique that runs things. If
these statements are true, it is usually
because of the lack of ideas and suggestions
from the members. If you feel your group
isn't doing anything, perhaps you should
ask yourself what contributions you have
made recently.

(From "HARC" Kansas City, KS)

P A R C AIR FORCE

by Almon G. Ing, WE6OEZ

The Palisades Amateur Radio Club
(PARC) has an Air Force.

It's been said that PARC is the only club
with an Air Force but I question that on
two counts. PARC has never officially
adopted us, and besides we have met so
many Pilot-Hams that they must be
organized somewhere.

This is an open invitation to participate.
I'll describe a PARCAF Friday evening
on the town. It's characterized as ter-
rorizing the Los Angeles Terminal Con-
trol Area (LAX TCA). Membership,
such as it is, consists of mainstays Al
Ing, (WE6OEZ), Martin Geisler, (WA6-
TIC), Mel Hoffman, (WE6KGS), Pete
Carah, (K6JRR), and Rod Dixon, (K6YTS).
We hope to be joined soon by recently
licensed pilots Dale Winther, (WA6PDL),
and Lance Wong, (WA6JJE) and student
pilots Bill Ogg, (WA6NGA), Jim Albright,
(WE6ZAQ) and Bill Hawley, (W6ZRZ).

Sam Christy, (WA6NJC) is being recruited
but he doesn't yet fully appreciate the
"thrill" of cross-country night flying in a
single engine airplane. He recently re-
tired from Japan Air Lines and is used to
the plush left seat of a 747 with a co-pilot
and a flight engineer fussing over him. He
is weakening however.

It's Friday night and I've just left work.
The PARC Repeater, WR6AEP, 146.01/
146.61 MHz is busy with "When will you
arrive at the airport?" "Where are we
going?" "Did anyone call Weather?"
"You better leave last 'cause you're fast-
est." "I'm going to leave now and go up
to 10,000 feet and when you guys decide
where we're going I just have to point and
it will be all down-hill." "Hey, I want
to go too! Does anyone have an extra seat?"
etc.

Of course there are some well-wishers
"Have a good time". Fly low and slow".
etc. And there are those who are tired
of this regular Friday night Fire-Drill
and patiently stand by as we attempt to
coordinate the Impossible Mission (we
don't have a leader).

Included in our agenda is Bakersfield
(Mel's favorite). Fresno (really a bit too
far). Orange County (too close), Oxnard

(also kind of close), San Diego (good
Mexican food) and Santa Barbara (Al's
favorite). Palm Springs has good res-
taurants but you have to rent a car or
take a cab. Ferreago Springs was good
but it's in a valley surrounded by moun-
tains. When you approach the area you
look down in this hole and sure enough
there's a lighted runway down there.
Everything looks great until you start
down. As one of our pilots put it "It's
like driving around in the bottom of an
ink well." A couple of the fellows did Las
Vegas a couple of times but I understand
they didn't get back until about four in the
morning.

We get airborne and clear our respective
control zones (most of us fly out of Van
Nuys). Check in is on 122.9 MHz. the
frequency used by pilots to coordinate in-
flight activity. It's not a ham frequency
but it gets pretty bad when a half dozen
or so hams get on it. If we haven't yet
decided where we are going, we do it at
this time.

One pilot may call Flight Watch (Enroute
Weather Advisory Service) on 122.0 MHz
to determine the weather at Santa Bar-
bara and the fog forecast. Another calls
Orange County Unicom (Air to Ground
Pilot Convenience Frequency) to find out
if the Aero Squadron Restaurant has
parking facilities or free transportation
yet. As reports filter in, decisions are
made and navigation discussions ensue.

Eventually, we all head in the same di-
rection. Well ---- usually. Now comes
the interesting and confusing procedure
of maintaining lateral and/or vertical
separation. "Oh, I think I see you. Turn
off your lights for a few seconds." "Ok,
lights-off----lights on." "That's not you,
I guess. I wonder who it is." "What's
your altitude?" "4,500, what's yours?"
"6,500, if you stay down there, I'll stay
up here - ok?", etc. In the meantime
our passengers have been busy on 146.
94 MHz portable radios working DX and
periodically desensing the aircraft re-
ceivers.

Nearing our destination someone will
suggest that we all switch to the tower
frequency. If 2 Meter activity is too
frantic we may ask our passengers to
cool it while we prepare to land and things
usually quiet down. We all trundle over
to parking, disembark and start the in-
evitable "Let me tell you about our flight"
chatter. This is as much fun for everyone
as the flight itself.

We usually present a problem to the res-
taurants. Most are geared for 2s, 4s
and 6s. When 12s, 16s and 20s show up
pandemonium is amplified 6db.

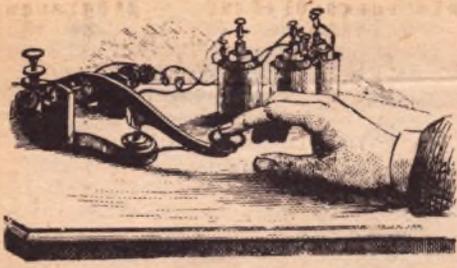
Flying back it is quieter. Everyone is
full. We have just had ample fellowship
over dinner. The drone of the engine is
welcome relief.

As I said, this is an open invitation. We
are active on 01/61, the PARC repeater
located in the Hollywood Hills until 6:30
or 7:00 p.m. Friday evenings and on
146.94 and 122.9 MHz between 7:00 and
8:00 p.m.

All you daring young men in your flying
machines are welcome.

"What it takes, is a feeling of solidarity
and fraternity among a group of operators.
They must be proud of themselves and
proud of each other in the rendering of a
significant public service -- of having a
procedure that is efficient (not necessarily
fast), orderly, disciplined, and yet fra-
ternal.
The terms "discipline" and "fraternality"
aren't contradictory. On the contrary,
there is no fraternity so close knit as one
based on conformance to basic rules of
conduct and operation. It's easy enough
to have a big, happy informal family. But,
not so simple to arrive at this kind of a
relationship while still creating and oper-
ating an efficient public service net. You
have to work at it, knowing what you are
working for."

de George Hart, W1NJM, Communications
Manager, ARRL (Tex Bulletin)



Two Hundred Meters and Down

by Clinton B. DeSoto

courtesy of ARRL

(First published in 1936. "Two Hundred Meters and Down" is reprinted here, in serial form, so we may have a better knowledge of the vast and great history of Amateur Radio. This presentation is in honor of those who went before us and through determination and hard work, gave us what we have today.)

(Continued from last month's Worldradio NEWS)

Part I - Pioneers Chapter Seven . . . Growth and Expansion

When the year 1916 closed, amateur radio had reached a new magnificence. The number of licensed transmitting stations exceeded 9,000. Estimates of the number of receiving stations were in the neighborhood of 150,000. An official of the Radio Club of America who was connected with the radio department of one of the large electrical supply houses declared it to be his belief that these amateur stations represented an investment of not less than ten million dollars. There were many whose stations were worth in the neighborhood of five thousand dollars; among them were T. E. Gaty, 3WN, of Morristown, N. J., vice-president and secretary of the New York Fidelity & Casualty Co., John Hays Hammond, Jr., of Gloucester, Mass., later to become one of the most famous of radio inventors; and W. H. Carroll of St. Louis, Mo.

Supplying this huge market were thirty or more manufacturing firms, many of which confined their business solely to amateur equipment. Notable among them were such names as Murdock, Clapp-Eastham, Crystaloi, F. E. Chambers, Adams-Morgan, the William P. Duck Co., Manhattan Electric Supply, Brandes, and others. In addition to the one magazine which was devoted exclusively to amateur radio, there were four other magazines containing a considerable proportion of amateur information. A number of books on the general subject of wireless construction had been published; the writings of A. P. Morgan, Philip Edelman's book, Experimental Wireless Stations, and a few other selected volumes were the chosen gospel of the art.

This great body of organized hobbyists swept into the year 1917 bent on accomplishing one long-hoped for objective—the first transcontinental relay. They were all the more hopeful because of two new tools that had been released for their use—complete audion regenerative receivers for amateurs, developed by two different manufacturers, which offered sufficiently increased sensitivity and range to make an actual transcontinental relay feasible.

The first attempts, on January 4, 1917, was broken up by static. But on January 27th the great feat was finally accomplished. Three messages, two from the Seefred Brothers and one from Lindley Winsor of Packersfield, were started from 6EA on the night of the 27th. By quick jumps these messages passed from Captain W. H. Smith 9ZF, Denver, to Willis P. Corwin, 9APD, Jefferson City, Mo., to Kenneth Hewitt, 2AGJ, Albany, and finally to their addressees, Hiram Percy Maxim and Clarence D. Tuska, in Hartford, at 1ZM. The jumps were respectively 850, 750, 1,040, and 100 miles—the great credit going to 9ABD and 2AGJ.

But this accomplishment was quickly overshadowed by a greater one. On February 6th a message was started from the East Coast, relayed to the West Coast, and an answer received in the record time of one hour and twenty minutes! The stations participating were John Grinan and Adolph Faron, 2PM, New York; Alfred

J. Manning, 8JZ, Cleveland; Willis P. Corwin, 9APD, Jefferson City; W. H. Smith, 9ZF, Denver; and the Seefred Brothers, 6EA, Los Angeles. QST dared to predict that the time might be cut to twenty minutes before the summer weather began, for, after all, the relay nets of the country were now so thoroughly organized that there were three possible routes for a transcontinental message.

The month of February, 1917, is of historic importance in amateur radio also because during it was begun the change which was that year brought about in the governing structure of the A. R. R. L. For nearly three years, Maxim and Tuska, serving as president and secretary respectively, had been the sole officers of the League. By 1917 it had reached such size and importance that a more suitable organization was deemed advisable. Consequently, on February 28, 1917, a group of leading amateurs met at the Engineers' Club in New York City to consider the problem. After a succession of meetings they had written and adopted a constitution that outlined the policies of the League, specified the machinery for the election of officers, divided the country into six divisions, elected by vote twelve A. R. R. L. directors and four officers, and declared membership open to anyone interested in radiotelegraphy or radiotelephony.

The officers they elected were; president: Hiram Percy Maxim; vice-president and general manager, Arthur A. Hebert; secretary, Clarence D. Tuska; and treasurer, C. R. Runyon, Jr. The Board of Direction consisted of: J. O. Smith, Valley Stream, Long Island; R. H. G. Mathews, Chicago, Ill.; John C. Cooper, Jr., Jacksonville, Fla.; Frank M. Corlett, Dallas, Texas; W. H. Smith, Denver, Colo.; Howard C. Seefred, Los Angeles, Calif.; Victor F. Camp, Brightwaters, N. Y.; H. L. Stanley, Pabylon, N. Y.; W. T. Fraser, Buffalo, N. Y.; W. T. Gately, Danville, Va.; T. E. Gaty, Morristown, N. J.; and Miller Reese Hutchinson, Orange, N. J. The six Division Managers were chosen next; Atlantic, J. O. Smith; East Gulf, J. C. Cooper, Jr.; Central, R. H. G. Mathews; West Gulf, Frank M. Corlett; Rocky Mountain, W. H. Smith; and Pacific, H. C. Seefred.

From that time until March, 1919, the Administrative office of the League was the business office of the new General Manager, Arthur A. Hebert, at 50 Church Street, New York City; and its affairs were handled from his home in Nutley, N. J.

But Destiny again interfered with amateur radio, and it decreed that there were not to be many affairs to handle. In April, 1917, all licensed amateurs received the following letter from the office of the Chief Radio Inspector of the Department of Commerce:

"To all Radio Experimenters.
"Sirs:

"By virtue of the authority given the President of the United States by an Act of Congress, approved August 13, 1912, entitled, 'An Act to Regulate Radio Communication,' and of all other authority vested in him, and in pursuance of an order issued by the President of the United States, I hereby direct the immediate closing of all stations for radio communications, both transmitting and receiving, owned or operated by you. In order fully to carry this order into effect, I direct that the antennae and all aerial wires be immediately lowered to the ground, and that all radio apparatus both for transmitting and receiving be disconnected from both the antennae and ground circuits and that it otherwise be rendered inoperative

both for transmitting and receiving any radio messages or signals, and that it so remain until this order is revoked. Immediate compliance with this order is insisted upon and will be strictly enforced. Please report on the enclosed blank your compliance with this order; a failure to return such blanks promptly will lead to a rigid investigation.
"Lieutenant, U. S. Navy.
District Communication Superintendent".

Part I - Pioneers Chapter Eight . . . War!

Immediately following this crushing blow, amateur radio was called upon to defend itself from a legislative menace. The Padgett Bill, H. R. -2753, introduced in the House on April 9, 1917, proposed that all radio communications in the United States, including amateur, commercial, and extra-Naval governmental stations, were to be turned over to the Navy.

Naturally, all the radio world rose in protest. Individual amateurs generally disapproved the bill in principle, even though none of them dared say when they would actually be allowed to operate stations again. Charles H. Stewart, representing the Wireless Association of Pennsylvania and a number of other clubs, was heard in protest during the House Committee hearings. The N. A. W. A., through 'The Wireless Age', fought the measure bitterly. Hiram Percy Maxim, representing the A. R. R. L., went to Washington to confer with the sponsors of the bill, and secured an exception from its provisions for amateur stations, if and when they should be permitted to reopen. The bill was eventually killed in committee but the incident is of historical significance in that it showed that even at this early date the A. R. R. L. was accepted as the organization which represented amateur radio. Its membership total of about 4,000 was not as high as that claimed by competitive organizations, but by far the greatest percentage of licensed amateurs was enrolled among its numbers.

That threat over, amateur radio settled down to its next job, that of helping Uncle Sam to win the war.

In early 1917, the Radio Club of America had circulated its membership to gather vital statistics concerning the radio engineering talent available in the event of war. This information was turned over to the government prior to the general suspension of activities on the part of the club on October 7, 1917. The A. R. R. L. Board of Direction, shortly after its inception, passed a resolution placing the services and resources of the League at the disposal of the government. By these actions amateur radio volunteered both engineers and operators. The opportunity for service was not long in coming.

When the United States went into the War, the military forces were faced with an absolute lack of great corps of radio officers, instructors and operators that were needed. That need was great, and it was urgent. There was no time to train men. Probably no more fortuitous circumstance has ever occurred in history than the fact that at the time these thousands of trained radio men were so badly needed, there were over six thousand amateurs in this country who had been training themselves for periods as long as fifteen years in just the sort of activity for which they were required.

Washington contacted New York. A naval officer at the New York Navy Yard called H. P. Maxim in Hartford and asked him to call at his earliest convenience. Together with General Manager Herbert, he went to the Navy Yard the next day. The

officer, Lieutenant McCandlish, explained the situation. Five hundred operators were needed, at once, desperately. Could the League supply them? More than that, there was not sufficient radio equipment available. Could the apparatus of the better amateur stations be converted to military use?

Ten days were allowed. A last broadcast went out over those stations which had not yet been dismantled under the executive order. There was just time; in the next day or two, federal officials placed a government seal on all amateur apparatus. But Destiny again played its part, and within the allotted ten days the Navy had its operators.

Throughout the nation, from that time on, a continual campaign for enlistments was carried on. All of the radio magazines cooperated in this campaign to the fullest extent. 'The Wireless Age' devoted most of its space for the duration of the war to military propaganda. QST had war material bulking large in the five issues published before the editor himself went to war.

The second call was for two thousand volunteers. These were recruited with almost equal dispatch. It is estimated that before the war was over more than a thousand additional amateurs followed the footsteps of those first volunteers. While the records have never been fully tabulated, it is generally believed that between 3500 and 4000 amateurs saw military service during the period of the war, probably more. Evidential of this is the fact that the total number of Navy radiomen was increased from 979 on January 31, 1917, to a total of about 6700 at the time of the Armistice - and a considerable portion of these, especially in the higher brackets, were amateurs. A similar state of affairs existed in the Signal Corps and Army Air Service.

The A. R. R. L. deprived of its basis of existence and steadily losing members to the armed forces of the United States, kept on as best it could for a time for the benefit of those who were too old or too young to enlist, and to bring the able-bodied members into the service. Everything possible was done to keep amateur radio going. Hope was held out during the summer of 1917 that the war ban would not prevent experimental work with dummy antennas. It was a vain hope. Further orders were issued, strictly prohibiting the use of radio apparatus for any purpose whatsoever. The order was a death blow. During the succeeding fifteen months there was nothing anywhere quite so dead as the amateur radio movements in America. It was only in the breasts of the boys in France, or those engaged in training activities back home that kept them apart from the civilian dormancy, that the spark still lingered.

There can be no question of the importance of the part the radio amateur played in the winning of the war. The superiority of Allied, and particularly American, communications was the deciding factor in many moments of close struggle during the fighting on all fronts. The reason for this superiority is well-described by Lieutenant Clarence D. Tuska, then secretary of the A. R. R. L., who discontinued publication of QST with the September, 1917, issue, and volunteered. His standing as an amateur caused the military authorities to place him in charge of the organization of radio training in the Air Service with an officer's commission, without an hour's preliminary instruction. Concerning his experiences in training war-time radio operators at Camp McClellan, he has said:

(Continued in next month's issue)

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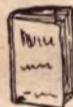
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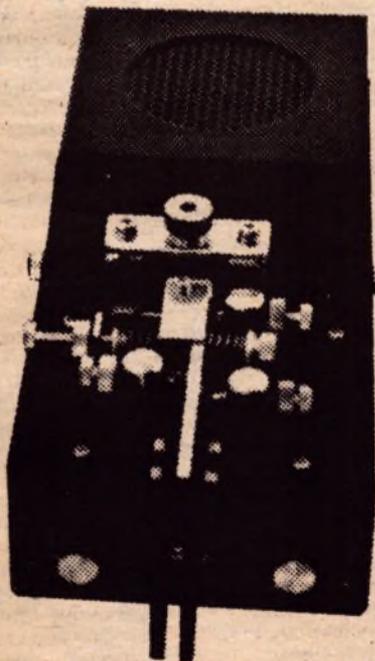
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Feedback

Thoroughly proud of Worldradio to date and glad to push its acceptance. It has filled a need for public relations to our public service activity... Larry Shima, W0PAN

Your editorial (P. 26, Feb. '74) "Our Hobby..." brings to mind my own emergency operations through the years--- Des Moines tornado around '23; Waupun, Wis. blizzard '29; Louisville flood '37, etc. Those in Amateur Radio must experience the ultimate thrill of true public service to fully appreciate the "hobby". I am an old, old timer (QCWA, OOTC, etc.) and ex-editor of the Spark Gap Times. The company I head is a publisher for the insurance industry (Insurance Field Company). I am a journalist and publisher and must say that you are a real professional and it shows in every page of Worldradio. I don't know why I did not subscribe to Worldradio from its first issue. My loss-- Fred Crowell, Jr., W9MIB

A most interesting and worthwhile ham newspaper... E. G. Shalkhauser, W9CI

I enjoy Worldradio very much and always look forward to receiving it. It is full of interesting information and also of inspiration. Your human interest stories make one proud to be a ham--or I should say prouder, since we're already proud to be licensed amateurs. So thanks for each issue. They are really great... Margaret Koerner, WB0BEM

I have a lot of friends which enjoy reading the fine paper you are printing. We enjoy the news and the different facets of Amateur Radio. May you continue to foment brotherhood and good will... Fraternaly, Rafael Estevez, WA4ZZG

Congratulations to you for Worldradio News. It is a "breath of fresh air", of what's right with Amateur Radio... Doug Murray, W6HVN

Congratulations on your excellent newspaper... Jorge Mendoza, XE1SH

As far as we can tell you fellows are doing your best for the radio amateur and humanity... A. S. McLean, W1JQ

Think your approach to ham radio is just fine... Edward Gallagher, W1DD

It is a pleasure to be able to have such a fine newspaper for the ham radio fraternity. I enjoy reading about the good will that amateurs spread throughout the world... Mike Smith, WB6LXH

I really like your wide coverage of the various topics in Amateur Radio. I especially like your stress on what ham radio does for people - both licensed and unlicensed... Joe Hutcheson, WA5SXR

I'm interested in stories about hams such as the one on Bob Suizo and Ned Carmen. Also like news of MARCO and other nets. I have phone patch available for emergencies... John Bargamian, K4VLI

The international goodwill and public service aspects of Worldradio are excellent... Douglas Reeves, WB6RKY

I'm interested in reading news about the AREC activities in other parts of the country... Roland Frechette, WB8NYN

It is helpful to have a paper with news of Nets and all activities of all branches of radio worldwide... Clarence Mulligan, WB4VAP

I read "Worldradio" front to back and back again and find much progress in format in your "idea sounder"... Armond Brattland, W0EA

You're getting better with each issue. Would like to see every ham a subscriber... Frank Farris, W4DYV

A real pleasure to be one of your subscribers... Louis Pfeifer, W2CDS

I like the "newsy" content... Eric Roberts, K4RF



Communicators

"Worldradio" Subscriber Roll furnished to further your acquaintance with others of mutual interests.

(continued from last month's issue)

Barry Goldwater, K7UGA, Scottsdale, AZ
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(to be continued in next month's issue)

The Worldradio News



an international newspaper
third year of publication

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The Worldradio News is two-way communication. Send in Amateur Radio information and news. Share your knowledge with your fellow amateur and "Worldradio" reader. We are most interested in your comments and suggestions. We would appreciate being placed on the mailing lists of amateur club bulletins.

Article contributions and advertising inquiries are invited.

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Craig Rutledge, WB6NUM
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"Worldradio" furnishes a Swan 270 Cygnet transceiver (220v). in carrying case, for loan to medical personnel, relief agency staff, etc., going overseas on short-term volunteer assignments.

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One that spans countries and continents, and barriers of language, culture, and ideology.

One that lets us meet, voice to voice, with men everywhere.

One that makes the world small

AMATEUR RADIO A HOBBY?

by Roy L. Albright, W5EYB

Too often one hears Amateur Radio is a "hobby".

Amateur radio is definitely NOT a hobby by any accepted definition of the word. Those who use it as such are either not well informed, or are deliberately violating established principles.

Our FCC charter, which authorizes our right to use amateur frequencies is very specific. Paragraph 97.1 FCC regulations states we have a fundamental purpose, expressed in the following principles:

- 1) Emergency communications.
- 2) Contribution to the advancement of the radio art.
- 3) expansion of the nation's reservoir of trained radio operators, technicians and electronic experts.
- 4) Continuation and extension of the amateurs unique ability to enhance international good will.

The fact that we voluntarily engage in amateur radio activities, does not alter our fundamental purposes. In fact, possession of an amateur license imposes a responsibility that we comply with the purposes of amateur radio as outlined in this charter.

Most assuredly, those who participate regularly in traffic nets are complying with these principles in a large measure.

But, Amateur Radio a "hobby"? No known hobby imposes such responsibilities, or offers so much to the motivated individual. And finally, let me say those who regard amateur radio purely as a hobby, and use it as such, are not carrying their share of the responsibilities."

(Texas CW Traffic Net "Bulletin")



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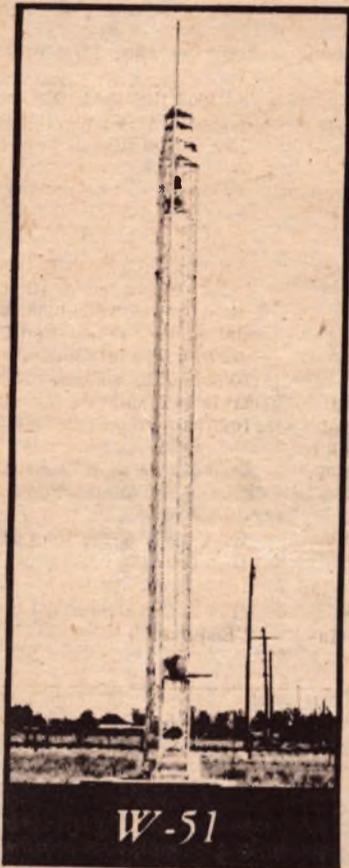
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Amateurs interested in low power operation are invited to join the QRP Amateur Radio Club International. For further information, please write to Elliott Blaize, W5TVW, Corresponding Secretary, QRP ARC, 417 Ridgewood Ave., Metairie, LA 70001

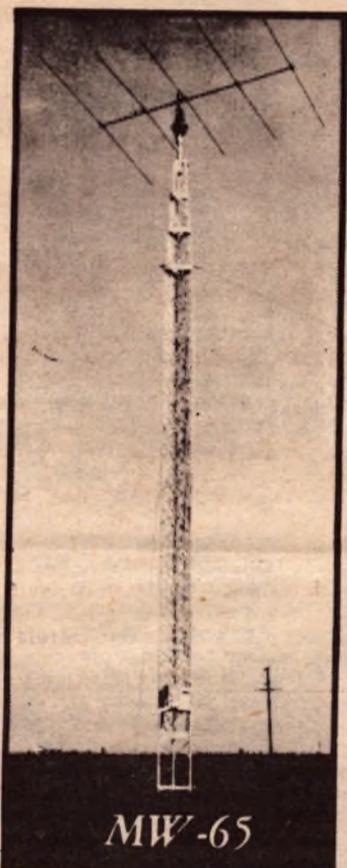
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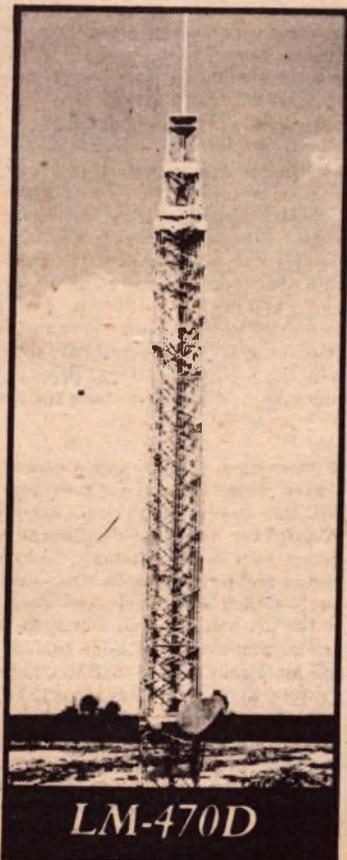
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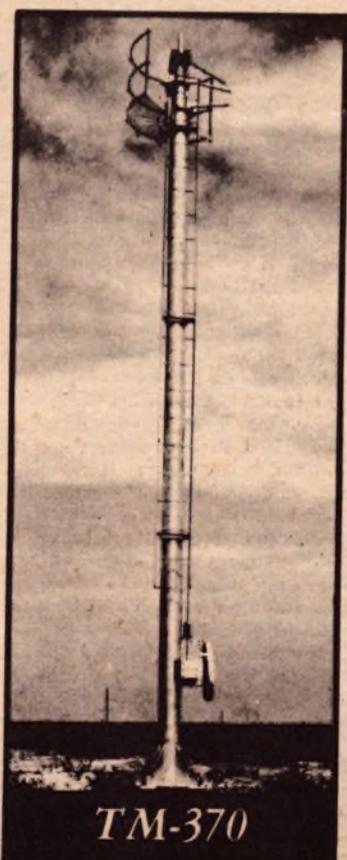
W-51



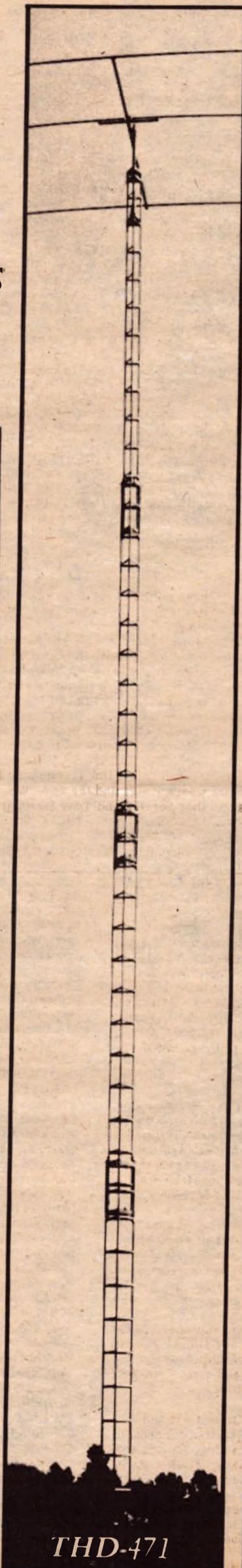
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The Worldradio News, June 1974

newsback

FCC closes down station

By Art Mayoff, VE2AWV/W6

Referred to as "Operation Poppa" ("p" for pirate) a group of radio club (Mt. Diablo ARC, Walnut Creek, CA) members were able to track down a pirate radio station. The FCC completed the job by shutting it down. The sequence of events is as follows:

In late February, Jim Shaw, WA6-PXU, informed me that his new R-4C receiver was picking up a station on 3.690 MHz, playing music. I verified this by also hearing it. The signal was about 6 to 10 KHz wide, pinning the meter in Concord, coming in 30 db over 9 in Pleasant Hill, S5 in Walnut Creek, and S2 in Danville. By the first week in March, we had determined a pattern of program times of this station and observed the following: It usually came on at 6:00 p.m. weekdays, and around noon on weekends. It

was apparently crystal controlled on 3.690 MHz. It rebroadcast music, news, and commercials of many TV and radio stations in the San Francisco Bay Area. It was not uncommon to hear KFRC, KCBS or KGO on 3.690 MHz. The pirate station never identified, and never had any of its own commentary.

On Sunday, March 10th, a transmitter hunt was initiated by Carl Hickman, K5OWC/6, and Jim Shaw, WA6PXU at 3:00 p.m. At 3:15 p.m. Peter Strauss, WB6-YBE, and I, VE2AQV/W6, joined the hunt. With the help of some "D-F" equipment supplied by Ted Durst, W6PFW, the pirate station was located 3:45 p.m. by YBE/AQV and then confirmed by OWC/PXU ten minutes later.

With the use of a field strength

meter it was determined that the pirate station was located approximately 200 feet east of the intersection of Roskelly Drive and Esperanza Drive on the south side of Roskelly, in the city of Concord.

During the period of March 1 to March 10, the FCC monitoring station in Livermore was contacted several times while the pirate was transmitting and was copied and logged by them. On different occasions Mount Diablo Amateur Radio Club members Miles Slope, (W6QEN), Dick Olsen, (WB6YEO), Carl Hickman, (K5OWC/6), Bob Kanner, (W6OXE), Orve Owen, (W6BSL), Peter Strauss, (WB6YBE), Bergie Bergman, (WB6RZX), Joe Haynes, (WA6RGG), and Art Mayoff, (VE2AQV/W6) as well as non-members Ron Percy, (WA6LBB) and Clyde Hoyt, (WB6FEU) monitored and recorded the pirate sta-

tion. Several times Ney Landry (K6RI) the FCC District Field Engineer for this region, was consulted and "updated" by club members. His interest and cooperation was outstanding. His concern for the "sanctity" of the ham bands is very commendable. And as for all of us CW operators, we express sincere thanks to him and his staff for the quick action which soon followed:

On March 20th at 6 p.m. the pirate station came on as expected. At 6:12 p.m. the station went off the air. At 6:12 p.m. it came back on, with the following statement:

"This is an FCC broadcast: This station is being closed down by the authority of the Federal Communications Commission in violation of Section" (Sorry

couldn't get the numbers down fast enough) "1937 and Section" (ditto), "1938"

A final note: The operator of this pirate station had a First Class Commercial radio ticket and we can only assume that he was "practicing" for the "big-time". He should have known better! A revoked First-Phone ticket can mean the loss of thousands of dollars in potential income.

At the QTH of WA6LBB, a chilled bottle of champagne welcomed the successful conclusion of "Operation Poppa". The toast:

"TODAY 3690, TOMORROW 7255!"

SUBSCRIBERS: If you receive two copies of this paper, the other was sent to you to give to a friend.

Tornado

(Continued from page one) the Mason City Building to power the Mason Police radio as well as their ham portable station being installed there. They also rigged a temporary antenna for the police to put their radio system back on the air. The storm had knocked out the original antenna.

Directed by Butler County AREC Emergency Coordinator of Fairfield, a Mason-area disaster net was established. Donn Notage, W8JGP, of Wyoming, Ohio, who had been net control for the initial weather net, had been sent to

Mason and served as net control there until 3 a.m.

Wednesday night-Thursday morning operations for Mason included providing communications for the several police departments called in under mutual aid agreements and the Red Cross.

They assisted in house-to-house searches for injured, and directed people to Red Cross shelters.

Deputized for the night, the hams at the scene conducted street patrols to prevent looting. Red Cross assistance to the city had

been called in over the ham radio link with Cincinnati.

While search activities were conducted in Mason, Hamilton County amateur radio operations centered on the weather watch with a different twist.

Former Clermont-Brown Counties Emergency Coordinator Larry Ashcraft, K8RXM, of Milford, served as the link between the ham weather net, and the U.S. Weather Service and Tony Sands at WLW-T.

Tony and the Service kept Ash-

craft informed by telephone of the movements of severe weather "cells" - especially ones with "hooks" - as they were tracked on radar.

The hams, in turn kept special watch on "hooked" cells and fed ground-level observations back to the weather service and WLW-T.

Real beneficiaries of the ham radio-Weather Service-WLW-T operation were refugees at Red Cross shelters in southern Butler and Warren Counties, and the police-ham street patrols in Mason.

As the hams visually tracked cells singled out by the weatherman, alerts were broadcast over the weather nets. Red Cross shelter officials moved refugees to school basements. Street patrols in Mason evacuated cars for the safety of basements.

On Thursday, Mason operations continued, Butler County operations came to a halt and Hamilton County operations swelled tremendously.

(From Cincinnati, Ohio "Enquirer")

Product review

(Continued from page 25) This little jewel includes 4 I.C.s, 17 transistors, 26 diodes. Also, all modular construction with plug-in boards for ease of service and maintenance - if you ever require it. The frequency control, VFO common to both receive and transmit modes has high stability. The tuning dial is calibrated in 5 kHz increments with easy interpolation to 1 kHz with a tuning rate of 15 kHz per revolution of the dial.

Other internal adjustments in the transmitter are: S-meter potentiometer for zero set; PA bias control; carrier balance adjust, and ALC adjust. The Atlas 180 has a built in reflectometer for infinite SWR protection.

In receive position, this remarkable piece of electronic gear draws 0.2 to 0.4 amps in receive mode, 16 amps peak in transmit mode. Computing the length of time a 12 volt, 100 ampere-hour battery would last, if used only in the receive position, comes to approximately 360 hours or 15 days. So if you accidentally forget to turn the rig off when mobile, don't worry about it. You can catch it in the morning or when you get back from your lost weekend.

I have only covered the surface. I own and operate an Atlas 180 mobile and feel it's the only way to go! This short review has covered the electrical and mechanical specifications of a terrific radio. But, there is one more factor, and that is, the man behind the radio.

The owner of the Atlas company is Herb Johnson, W6QKI. That may well be the most important specification this radio has. There are few men who have and deserve the outstanding reputation and great respect that Herb commands among amateurs.

Events

The Hollywood (FL) ARC plans to activate KH4FLA or a similar special call during Florida Amateur Radio Week, June 16-23. The operation will be at the Hollywood Mall on Hollywood Blvd. Traffic will be handled on 146.94 and general contacts on CW will be made at 70 kc from band edges; on SSB, frequencies will be 3930, 7230, 14330, 21430, 28530. QSL via W4OZF.

The Hall of Science Radio Club, a group of amateur radio operators affiliated with the Hall of Science (New York City) will hold their annual Flea Market Auction Picnic on Saturday, 8 June at 111th Street and 48th Avenue in Flushing Meadows-Corona Park at the Hall of Science site.

Hundreds of hams from many radio clubs throughout the metropolitan New York area, will participate in a Flea Market and Auction where all types of radio equipment and supplies used by amateurs will be offered for sale or swap.

Admission is \$1.00 and exhibitors, \$2.00. Ample free parking is available. The site is near the 111th Street Station of the I.R.T. Flushing Line and can be reached by the B-58 and Q-23 buses.

The Queens Zoo, the Queens Art and Cultural Center, the Children's Farm, Pitch and Putt Golf, Boating, Sailing and other facilities in Flushing Meadow Park will be open and available.

The market will be open from 10:00 a.m. to 4:00 p.m. In case of rain it will be held on Saturday, 15 June.

For additional information call 212-699-9400

FCC

Jacksonville, Fla., Amateur Radio station license revoked in review Board decision (Docket 19562)

Amateur radio station license KØECG issued to Samuel C. McCluney, III, Jacksonville, Fla., has been revoked in a Decision by Review Board Members Berkemeyer, Pincock and Kessler. The Board also suspended McCluney's amateur radio operator's license for the remainder of its term.

By separate orders, released June 29, 1972, the Chief, Safety and Special Radio Services Bureau, ordered McCluney to show cause why his license for station KØECG should not be revoked for violation of Part 97 of the rules by fraudulently obtaining an Amateur Extra Class operator license, and suspended his General Class Amateur Operator License for the balance of its term. By Order, released October 31, 1972, the Commission consolidated the proceedings on issues to determine whether McCluney had violated Part 97 of the rules; whether his actions were contrary to the public interest; whether he had misrepresented or concealed material facts or was lacking in candor; and whether the FCC would be warranted in refusing to grant his application for an Amateur station license if the original application were now before it.

The hearing was held in Jacksonville on August 13, 1973, with the record being closed on the same day.

In his Initial Decision (FCC 74D-11, released February 19, 1974), Administrative Law Judge Byron E. Harrison concluded that McCluney had acquired his amateur Extra license by fraud and misrepresentation and that he was not qualified to be

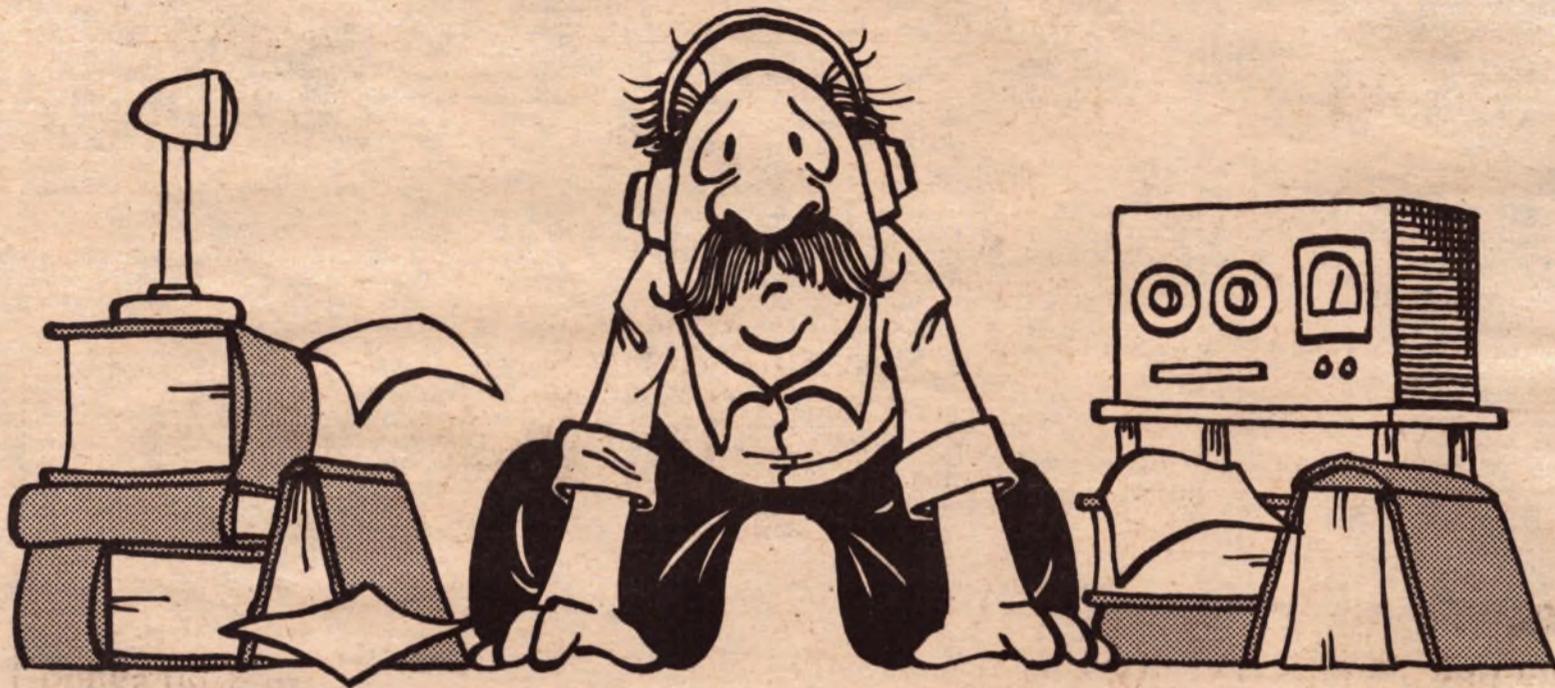
an FCC licensee. Judge Harrison proposed revocation of the station license and suspension of the operator's license for the remainder of its term.

McCluney filed a document challenging the propriety of the Initial Decision, the Board stated, but pointed out that the document did not comply with the requirements of Section 1.277 (a) of the rules governing the document on its merits.

The Board stated that after careful consideration of the entire record, the Initial Decision, and McCluney's "exceptions", it was "fully satisfied that the Judge's findings of fact fairly reflect the record in this proceeding," and adopted his conclusions and findings. It said, however, that in view of the peculiar circumstances in the case, and McCluney's unfamiliarity with the niceties of legal proceedings and pleadings, it would discuss the matters McCluney raised.

With regard to McCluney's contentions, the Board stated that he had been informed that the Commission could not provide counsel for him; that the Bureau and the Judge went to great lengths to explain his rights and privileges to him, and to be certain they were protected at each stage of the proceeding; that a copy of the transcript was made available in Jacksonville for McCluney's use; that McCluney was granted an extension of time to file finding of facts and conclusions on the grounds that he was going to seek help from a local aid bureau; and that the absence of any official record of the issuance of the contested amateur extra class license "was evidence that such a license was not in fact issued." Action by the Review Board April 24, 1974 by Decision.

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